

# UPSC MONTHLY MAGAZINE

MAY - 2018



## Flipkart Walmart Deal

Biggest ecommerce deal

## Iran Nuclear Deal

Trump administration a  
'Deal Breaker'?

## Citizenship (Amendment)

Bill, 2016

Regional unrest

## Pokhran II

India's compulsion to protect from  
external aggression

## Hague Abduction Convention

Child's care or  
International obligation

# INCREDIBLE RESULTS

## — IAS 2016 —

8 Ranks  
in Top 50

18 Ranks  
in Top 100

215 Ranks  
In The Final List



**Rank 2**  
Anmol Sher  
Singh Bedi



**Rank 5**  
Abhilash  
Mishra



**Rank 12**  
Tejaswi  
Rana



**Rank 30**  
Prabhash  
Kumar



**Rank 32**  
Avdhesh  
Meena



Ganga  
Singh  
Rank-33



Anu S  
Rank-42



Surabhi  
Gautam  
Rank-50



Manuj  
Jindal  
Rank-53



Tanai  
Sultania  
Rank-63



Parikh  
Mirant Jatin  
Rank-67



Rohit  
Vyas  
Rank-69



Abhishek  
Chourasiya  
Rank-72



Rajarshi  
Shah  
Rank-81



Prateek  
Jain  
Rank-82



Nair Prajit  
Prabhakaran  
Rank-87



Sushil  
Kumar  
Rank-96



Devendra  
Kumar  
Rank-97



Swarn  
Prabhat  
Rank-105



Hirani  
Adityavikram  
Rank-113



Varun  
Singla  
Rank-114



Shaurya  
suman  
Rank-119



Nitish  
Agarwal  
Rank-122



Ann Mary  
George  
Rank-123



Anand  
Shankar  
Rank-127



Rishav  
Kumar Jha  
Rank-128



Prabhat  
Ranjan Pathak  
Rank-137



Akanksha  
Rana  
Rank-163



Padmini  
Solanki  
Rank-170



Amogh  
Gopinath  
Rank-171



Bindu  
Madhav  
Garikapati  
Rank-172



Rahul  
Gupta  
Rank-182



Sagar  
Bagmar  
Rank-186



Abhay  
Soni  
Rank-188



Tare Anuj  
Milind  
Rank-189



Anurag  
Jain  
Rank-198



Arpit  
Vijayvargiya  
Rank-201



Deepak  
Shukla  
Rank-202



Videh  
Khare  
Rank-205



Akhil  
Mahajan  
Rank-213



Nitika  
Pant  
Rank-217



Tuhin  
Sinha  
Rank-219



Keshav  
Kumar  
Rank-222



Keshav  
Kumar  
Rank-230



mohit  
Garg  
Rank-238



Pansuria  
Toral Pravinbhai  
Rank-239



Odke Digvijay  
Govind  
Rank-247



Bogati  
jagadeeswar  
Rank-249



Abhishek  
Surana  
Rank-250



Pushkin  
Jain  
Rank-252



Amit  
Verma  
Rank-253



Shrey Vats  
Rank-260



Suchismita  
Kanungoe  
Rank-261



Sri Hari Prasad  
Gopishetty  
Rank-268



Aditi Mor  
Rank-277



Zade Parikshit  
Sanjayrao  
Rank-280



Prachi  
Ailawadhi  
Rank-290



Guru  
Prasad  
Rank-299



Shashank  
Shekhar Singh  
Rank-306



Aaditya  
Mishra  
Rank-309



Amilineni  
Bhargav Teja  
Rank-314



Aman  
Bishla  
Rank-315



Arihant  
Singhi  
Rank-322



Mitika  
Dahiya  
Rank-325



Ashima  
Mittal  
Rank-328



Aastha  
Suman  
Rank-331



Ankur  
Rank-341



Avneet  
Punia  
Rank-356



S Chitharanjan  
Rank-357



Ranjan  
Rajeev  
Rank-358



Godhani  
Aksharkumar P  
Rank-365



Sumit  
Balecha  
Rank-368



Basuki Nath  
Jha  
Rank-378



Mayank  
Mishra  
Rank-379



Mrinal Prakash  
Mishra  
Rank-380



Kaustuva  
Rank-381



Sambit  
Mishra  
Rank-385



# OUR RESULTS IN THE PAST YEARS

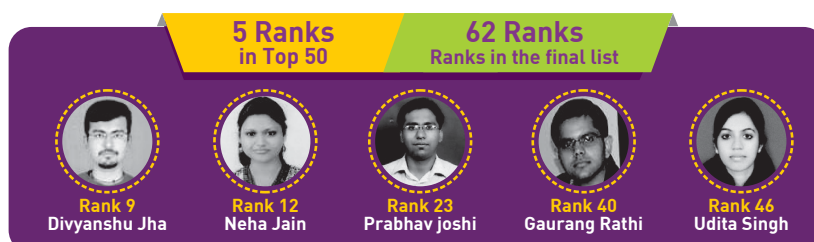
## IAS Result 2015



## IAS Result 2014



## IAS Result 2013



# CONTENT

CHAPTER	TITLE	PAGE
1	<b>Polity</b> <ul style="list-style-type: none"><li>• Citizenship (Amendment) Bill, 2016</li><li>• Lokpal Selection Panel</li><li>• Section 125 A of RPA Act</li><li>• World Press Freedom Index</li><li>• Adult couple can live together, says SC</li><li>• Appointment of chief ministers</li><li>• Do we need the office of the Governor?</li><li>• Model Code of Conduct Violation Reporting App</li><li>• National Anthem</li><li>• Should we do away with the I&amp;B Ministry?</li><li>• National parties under RTI Act: EC clarifies</li><li>• PMO seeks change in UPSC allocation</li><li>• Steering reform in clogged courts</li><li>• The Meghalaya example</li><li>• Dilemmas in civil services selection</li><li>• National Policy for Domestic Workers</li></ul>	8



**2 ECONOMY****18**

- Coir Industry
- Global Wind Summit
- Indian Petroleum & Explosives Safety Service
- Insurance Regulatory and Development Authority of India (IRDAI)
- IP Nani
- MGNREGA Issues
- Micro-Irrigation Fund
- NABH (Nextgen Airports for Bharat) Nirman initiative
- Nokku Kooli or wages for looking
- Permanent Residency Status (PRS) scheme
- Phased Manufacturing Programme (PMP)
- PRAAPTI App and web portal
- Rural crafts from Bengal get GI Tag
- Samarth – Scheme for Capacity Building in Textile Sector
- Tea Development and Promotion Scheme
- Union density
- Madhya Pradesh Gets India's First Smart Cities Control Centre
- Unmanned Rail Crossing
- Why is the rupee in a free fall?
- Hot-money risks seen rising as India courts 'bond tourists'
- UN report for social inclusion
- GST Council approves simple return filing
- RBI allows FPIs to buy T-bills; debt limit stays
- Flipkart Walmart Deal
- Ministry moots special tourism package for NE
- India to counter U.S. complaint on farm subsidies in WTO
- Cabinet approves new biofuels policy
- Infosys sets up blockchain-based trade finance network
- India mulls tariff hike on U.S. products to hit back on steel, aluminium duties
- SEBI proposes stringent norms for debt disclosure
- only little over 40 per cent loans are going to the small farmers: RBI

**3 INTERNATIONAL RELATIONS 29**

- East Asian reset
- Gexe Lharampa-Chinese county bans India-educated monks
- Gilgit-Baltistan
- India-Japan Energy Dialogue
- 'Nakba' day
- Pakal Dul Dam and Hydro Project
- Putin sworn in for fourth term
- Sabang Port Access
- Shanghai Cooperation Organization (SCO)
- Windrush Generation
- India's role in ending the Korean war
- Iran Nuclear Deal
- India, Indonesia elevate ties
- India launches second IT corridor in China
- China wants Pakistan to relocate Hafiz Saeed to a West Asian country
- Ireland overturns abortion ban in landslide vote
- India supports 'united, prosperous and strong' Nepal
- India to help settle Rohingya back in Rakhin
- Supreme Court appoints nodal officers for Rohingya children

**4 SOCIAL ISSUES 41**

- Muthi Hala Bidai ritual
- Real Estate (Regulation and Development) Act, 2016
- Swachh Sarvekshan 2018
- Hague Abduction Convention
- World Urbanization Prospects report
- Domestic Violence Act for divorced women
- Supreme Court wants trials in child sexual abuse cases to be fast-tracked
- Gender bias caused 'excess' deaths of girls under 5: Lancet study

<b>5</b>	<b>SCIENCE AND TECHNOLOGY</b>	<b>46</b>
	<ul style="list-style-type: none"> <li>• Anitha-SAT</li> <li>• APSTAR-6C</li> <li>• Blue Origin</li> <li>• Carbon Monitoring System (CMS)</li> <li>• Insight Mission</li> <li>• When NECTAR turned poison for bamboo</li> <li>• ISRO making green propellant</li> <li>• Chongqing Liangjiang Star</li> <li>• Queqiao satellite/ Magpie Bridge</li> <li>• Ruthenium (Ru)</li> <li>• Lunar rock points to hidden water reserves on Moon</li> <li>• Problems with a DNA registry</li> </ul>	
<b>6</b>	<b>SECURITY AND DEFENSE RELATED</b>	<b>51</b>
	<ul style="list-style-type: none"> <li>• GravityRAT</li> <li>• Maharashtra Control of Organised Crime Act (MCOCA), 1999</li> <li>• Naxalites develop 'Rambo arrows' and poop-laced bombs</li> <li>• Pokhran II</li> <li>• Type 001A- First China-Made Aircraft Carrier</li> <li>• Inner Line Permit</li> <li>• Network For Spectrum (NFS) project</li> <li>• Surrender and Rehabilitation Policy in J&amp;K</li> <li>• Ex-diplomat gets 3 years' jail for leaking info to ISI</li> </ul>	
<b>7</b>	<b>ENVIRONMENT AND ECOLOGY</b>	<b>56</b>
	<ul style="list-style-type: none"> <li>• Arsenic Poisoning</li> <li>• Bamboo lemur/Greater Bamboo Lemur/ Broad-nosed Gentle Lemur</li> <li>• Brown Peach Aphid</li> <li>• Clean Air India Initiative</li> <li>• Endosulfan</li> <li>• Gaj Yatra</li> <li>• Himalayan Trillium</li> <li>• Indian Vulture/ Indian Griffon/Long-billed Griffon</li> <li>• Jim Corbett National Park</li> <li>• Liocichla Bugunorum</li> <li>• Marsupials</li> <li>• Microhyla Kodial</li> <li>• Natural capital in the 21st century</li> <li>• Noctiluca Algae /Sea Tinkle</li> <li>• Rekla Race</li> <li>• South Asian Climate Outlook Forum (SASCOF)</li> <li>• Thoothukudi Violence</li> <li>• Trichlorofluoromethane, or CFC-11</li> <li>• Uropeltis bhupathyi</li> <li>• Supreme Court settles the law that ivory is 'government property'</li> <li>• Animal-free testing for drugs</li> <li>• Clean Ganga Mission funds Underutilized</li> <li>• Dirty socks, algae behind Taj Mahal discolouration</li> <li>• New Technique to reduce Pollution</li> </ul>	



<b>8</b>	<b>HEALTH ISSUES</b>	<b>66</b>
	<ul style="list-style-type: none"><li>• Chikungunya</li><li>• Chordoma</li><li>• Lassa Fever</li><li>• Leptospirosis</li><li>• 'Nidaan' Software</li><li>• 'Nipah' virus (NiV)</li><li>• Nocebo effect</li><li>• Thalassemias</li><li>• Vitamin D /Sunshine Vitamin</li><li>• WHO launches 'REPLACE' to eliminate trans-fat in foods</li><li>• India rejects U.S. request on medical device price caps</li><li>• Eat less saturated, trans fats to curb heart disease: WHO</li></ul>	
<b>9</b>	<b>ART AND CULTURE</b>	<b>70</b>
	<ul style="list-style-type: none"><li>• Aranmula's snakeboats</li><li>• Central Institute of Higher Tibetan Studies (CIHTS)</li><li>• Tholu Bommalata</li><li>• Prehistoric Rock Paintings in Pandavulagutta</li></ul>	
<b>10</b>	<b>MISCELLANEOUS</b>	<b>73</b>
	<ul style="list-style-type: none"><li>• AMU-Jinnah portrait row</li><li>• Mekunu</li><li>• SamagraSiksha</li><li>• AP names new state symbols</li><li>• World's second oldest rock is from Odisha</li><li>• Over 100 killed in dust storm in U.P., Rajasthan</li></ul>	
<b>11</b>	<b>PRACTICE QUESTIONS</b>	<b>76</b>
<b>12</b>	<b>ANSWER KEY</b>	<b>90</b>
<b>13</b>	<b>MAINS PRACTICE QUESTIONS</b>	<b>93</b>

# POLITY

## 1. Citizenship (Amendment) Bill, 2016

- The Citizenship Amendment Bill 2016 seeks to allow illegal migrants from certain minority communities in Afghanistan, Bangladesh and Pakistan eligible for Indian citizenship. In other words, it amends the Citizenship Act of 1955.
  - Bill is in the works to amend the Act and make changes to some provisions in the Foreigners Act, 1946, the Passport (Entry into India) Act, 1920, and the Passport (Entry into India) Rules, 1950.
- The Bill seeks to allow illegal migrants belonging to the Hindu, Sikh, Buddhist, Jain, Parsi or Christian religious communities coming from Afghanistan, Bangladesh or Pakistan to not be imprisoned or deported.
- It also appeals for the minimum years of residency in India to apply for citizenship to be lessened from at least 11 to six years for such migrants.

### Who are the illegal migrants?

- Under the Citizenship Act of 1955,
  - Foreigners who come into India without valid travel documents, or
  - Stay in the country beyond their visa period, are considered illegal migrants.

### Issue Area

- The Bill makes illegal migrants eligible for citizenship on the basis of religion. This may violate Article 14 of the Constitution which guarantees right to equality.
- The Citizenship (Amendment) Bill also fails on the tenets of international refugee law. Although India is not a signatory to the 1951 UN Refugee Convention, granting refuge based on humanitarian considerations is arguably a norm of customary international law.
- The Bill terms minority religious people as migrants, when they are not migrants but refugees.
  - The word migration refers to the voluntary movement of people, primarily for better economic prospects.
  - In contrast, refuge is an involuntary act of forced movement. The concerns of refugees are human rights and safety, not economic advantage.
- Although India does not have a codified refugee policy, the basic tenants of the scheme were listed by Jawaharlal Nehru during the Tibetan refugee crisis.
  - One of the primary conditions given then was that refugees would have to return to their homeland once normalcy prevailed. The proposed law not only provides citizenship rights to such refugees, but greatly relaxes the procedure to avail of them.

- It also does not talk about other minority communities in the three neighboring countries, such as Jews, Bahais etc.
- The External Affairs Ministry has cautioned the Home Ministry that the move could hurt India's relations with its neighbours

### Why are people in Assam not happy about it?

- It would threaten the existence of the indigenous people of Assam.
- The Citizenship Amendment Bill has not been sitting well with the Assamese as it contradicts the Assam Accord of 1985, which clearly states that illegal migrants heading in from Bangladesh after March 25, 1971, would be deported

## 2. Lokpal Selection Panel

### Context

- Senior advocate Mukul Rohatgi has been appointed as an eminent jurist in the selection committee for appointment of anti-graft ombudsman Lokpal

The Lokpal and Lokayuktas Act was passed in 2013 to constitute a statutory body to inquire into allegations of corruption against public functionaries.

### Structure

- A Chairperson, who is or has been a chief justice of India (CJI), or, is or has been a judge of the Supreme Court or an eminent person, who fulfills the eligibility specified;
- Members, not exceeding eight, out of whom 50% were to be judicial members.
  - either a former Judge of the Supreme Court
  - or a former Chief Justice of a High Court
- Also, the Act specified that not less than 50% of the members of the Lokpal shall be from amongst the persons belonging to the scheduled castes, the scheduled tribes, other backward classes, minorities and women.
  - The non-judicial member should be an eminent person with impeccable integrity and outstanding ability, having special knowledge and expertise of minimum 25 years in the matters relating to anti-corruption policy, public administration, vigilance, finance including insurance and banking, law and management

### Selection Panel

- The selection committee will comprise of
  - prime minister,
  - speaker of Lok Sabha,
  - leader of the opposition in the Lok Sabha,

- \* CJI or a sitting Supreme Court judge nominated by CJI, and
- \* an eminent jurist to be nominated by the president of India on the basis of recommendations of the first four members of the selection committee.

#### How would it fight Corruption?

- The Act had sought to bring the prime minister under the purview of the Lokpal.
- The Lokpal was mandated to cover all categories of public servants.
- Section 44 of the Act demanded that every public servant shall furnish to the competent authority, the information relating to:
  - \* The assets of which he, his spouse and his dependent children are, jointly or severally, owners or beneficiaries;
  - \* His liabilities and that of his spouse and his dependent children.
- The Act had also provided for attachment and confiscation of property acquired by corrupt means, even while the prosecution was pending.

#### Background

- Though passed in 2014, the Lokpal and Lokayukta Act of 2013 was not implemented all these years because there was no Leader of the Opposition in the 16th Lok Sabha.
- The 2013 statute includes the Leader of the Opposition as a member of the selection committee.
- For an opposition party to get the Leader of the Opposition post, it should have a strength of at least 10% of the total members in the House and none of the parties managed to cross this mark.
- This unique situation called for an amendment to the existing Lokpal Act to change the Leader of Opposition to Leader of the largest Opposition party.
- While the amendment was moved and the Standing Committee approved it, it is yet to be tabled in the Parliament.
- However, the Supreme Court, in a judgment, clarified that the Lokpal appointment process need not be stalled merely due to the absence of the Leader of the Opposition.

### **3. Section 125 A of RPA Act**

- As per Section 125 A, if any voter spots any discrepancy or falsehood in the details provided by any candidate, he has option to file a complaint or FIR against the candidate concerned before the police.

#### Law Commission Recommendation

- The Law Commission headed by retired Supreme Court judge AP Shah had informed the Supreme Court – after the court had sought its opinion – that the filing of false affidavit was “rampant” and “it can only be curbed if the punishment for the offence is enhanced to two years’ prison term from the present six months and the person disqualified from (future) elections.”

#### EC and SC

The Election Commission and the Income Tax department have taken steps to tackle the menace of unaccounted money influencing the electoral outcome.

- Before the 2010 Bihar assembly elections, the Election Commission wrote to the Central Board of Direct Taxes (CBDT) to match the statements of assets and liabilities filed by all candidates with their income tax returns. Grumbling about the volume of work involved, all that the CBDT came up with was 10 cases of “wrong PAN numbers being used by candidates.”
- In January 2014, the Election Commission had organized another joint meeting with CBDT where it was decided that the EC would sort out the affidavits into different categories and present CBDT with material in a format which would be easy to scrutinize. It is almost four years since the last Lok Sabha elections and whether anything has come out of that exercise is not known.
- The Election Commission had also recommended to the Centre in February 2011 to amend Section 125A of the RPA and enhance punishment for filing false affidavits to two years imprisonment “which is the minimum sentence required for attracting disqualification under Section 8A of the electoral Act.” Both the then UPA and the present NDA governments have remained silent regarding EC’s recommendation.
- The Election Commission reiterated its stand before the court that filing of false affidavits should be made grounds for disqualification.

### **4. World Press Freedom Index**

- Press Freedom Index is an annual ranking of countries compiled and published by Reporters Without Borders based upon the organization’s own assessment of the countries’ press freedom records in the previous year
- It is a snapshot of the media freedom situation based on an evaluation of pluralism, independence of the media, quality of legislative framework and safety of journalists in each country.
- It intends to reflect the degree of freedom that journalists, news organisations, and netizens have in each country, and the efforts made by authorities to respect this freedom.
- Reporters Without Borders is careful to note that the index only deals with press freedom and does not measure the quality of journalism nor does it look at human rights violations in general



**2018****India**

- India, the largest democracy in the world, slipped again this year by two ranks to 138th in World Press Freedom Index
- The report cites “self-censorship in the mainstream media” and “online smear campaigns” against journalists by the “most radical nationalists” as reasons behind its downfall.
- India stood at 136 in 2017, down from 133 in 2016.
- Afghanistan (118th), Bhutan (94th), Nepal (106th), Maldives (120th), and Sri Lanka (131st), all performed better than India with Pakistan (139th) and Bangladesh (146th) performing worse

**Reasons**

- The murder of journalist-turned-activist Gauri Lankesh in Bengaluru and other indicators such as hate speeches, trolling on social media and attacks on journalists
- self-censorship is growing in the mainstream media and journalists are increasingly the targets of online smear campaigns by the most radical nationalists, who vilify them and even threaten physical reprisals
- coverage of regions that the authorities regard as sensitive, such as Kashmir, continues to be very difficult”. It added that foreign reporters are barred from the region and the Internet is often disconnected there”.

**Other countries**

- In the 180-strong list of nations, Norway and North Korea retained their positions as number 1 and number 180 respectively

**Constitutional Aspect**

- The Indian Constitution, while not mentioning the word “press”, provides for “the right to freedom of speech and expression” Article 19(1)(a).
- In Indian Express Newspapers v. Union of India, the Supreme Court emphasized the importance of freedom of press in these words:
  - \* The expression freedom of press has not been used in Article 19 but it is comprehended within Article 19(1)(a).
  - \* The expression means freedom from interference from authority, which would have the effect of interference with the content and circulation of newspapers. There cannot be any interference with that freedom in the name of public interest.
  - \* The purpose of the press is to advance the public interest by publishing facts and opinions without which a democratic electorate cannot make a responsible judgement.

- \* Freedom of the press is the heart of social and political intercourse. It is the primary duty of the courts to uphold the freedom of the press and invalidate all laws or administrative actions, which interfere with it contrary to the constitutional mandate.

**5. Adult couple can live together, says SC**

- An adult couple can be in a live-in relationship even if the man isn't 21 years, the legal age for marriage, the Supreme Court has ruled
- Even if they were not competent to enter into wedlock (which position itself is disputed), they have right to live together even outside wedlock,
- The top court noted that the legislature had also recognised “live-in relationship” which has been covered under the Protection of Women from Domestic Violence Act 2005.

**What was the Issue?**

- In this case, the girl had eloped with a boy who was not of marriageable age (21), though major
- Prohibition of Child Marriage Act states that a girl can't marry before the age of 18, and a boy before 21.

**Definition**

- The Supreme Court in Indra Sarma vs. V.K.V. Sarma defined live-in relationships as- A domestic cohabitation between an adult unmarried male and an adult unmarried female.

**Previous Judgements**

- The Apex Court in so many of its judgments has stated that if a man and a woman “lived like husband and wife” in a long-term relationship and even had children, the judiciary would presume that the two were married and same laws would be applicable.
- In another instance, the Apex court even declared that for a man and a woman in love to live together is part of the right to life and not a “criminal offence”.
- live-in couples are not allowed to adopt kids as per the Guidelines Governing the Adoption of Children as notified by the Central Adoption Resource Authority.

**Background**

- The high court of Kerala had in 2017 annulled a woman's marriage and sent her back to her father on grounds that the man wasn't 21 when they married

**6. Appointment of chief ministers****Current status**

- BJP emerged as the single largest party in the Assembly, secured 104 seats in the 224-member House, just short of majority.
- The Congress, which won 78 seats in the elections, has allied with the JD(S), which has 37 seats, in a bid to keep the BJP out of power. The alliance, which has 115 MLAs in its kitty

- It has to prove its strength on the floor of the House within 15 days.

#### Governor at ease in selection

- If only Party One had just crossed the halfway mark and got a simple majority, his task would have been simple. He would have called its leader to form the government.
- If only Party Two and Party Three had entered the election as a joint team, in what is called a pre-poll alliance, his work would again have been simple.

#### What can be done?

- If he has to remain in power, he cannot simply get defectors from the Congress and the JD (S) to fill in but get them resign or abstain so that his existing number becomes the majority.
- In other words, a number of newly elected MLAs from either the Congress or the JD(S), or both, have to voluntarily lose their seats either by resignation or by abstaining so that the total number comes down, making way for the BJP possessing more than half.
- If they abstain, they will be disqualified and thrown out of the assembly under the Anti-Defection Law.

#### Implications

- The Governor unbolted the doors to allow room for the BJP to try to engineer defections
- Calling it the 'Karnataka effect', the Congress in Goa and Manipur, and the Rashtriya Janata Dal (RJD), its ally in Bihar, have sought appointments from the Governors of these States to stake claim to the government as the single largest party in the Assembly.

#### **Sarkaria Commission Report -1983**

It specifically deals with the situation where no single party obtains absolute majority and provides the order of preference the Governor should follow in selecting a Chief Minister. The order of preference suggested is:

- a pre-poll alliance;
- the single largest party;
- a post-poll alliance that commands the required numbers to run the government smoothly;
- a post-poll alliance in which partners are willing to extend an outside support.

Sarkaria Commission also said that the Chief Minister must seek vote of confidence within the 30 days from the day he assumes the charge. Also, the Governor should not risk determining the issue of majority outside the Assembly. It said that floor of the House is the place where the majority has to be proved.

#### **Rameshwar Prasad case -2006**

- It was finetuned by the SC in the Rameshwar Prasad case in January 2006, when a five-judge bench by three to two majority had said, "There is nothing wrong in post-poll adjustments and when ideological similarity weighs with any political party to support another political party though there was no pre-poll alliance, there is nothing wrong in it.

#### **Punchi Commission-2007**

Among the significant suggestions made by the Commission is, laying down of clear guidelines for the appointment of chief ministers. Upholding the view that a pre-poll alliance should be treated as one political party, it lays down the order of precedence that ought to be followed by the governor in case of a hung house:

- Call the group with the largest pre poll alliance commanding the largest number;
- The single largest party with support of others;
- The post-electoral coalition with all parties joining the government;
- The post electoral alliance with some parties joining the government and remaining including Independents supporting from outside.

#### **Expert opinion**

- According to noted constitutional expert Subhash Kashyap, in such a situation, the Governor has the discretion to invite anyone to form the government and his decision can't be questioned in any court. He said that, in his opinion, the Governor should allow the single largest to prove majority.
- Soli Sorabjee also said that he was in favor of Governor inviting the BJP first. "The single largest party should be invited first and asked to prove the majority on the floor of the House within a short period of a time (7-10 days). If it fails to do so, the next largest party or a coalition should be invited to prove the majority. If that too fails, President's Rule should be impose," Sorabjee said.

#### **7. Do we need the office of the Governor?**

##### Context

- Karnataka elections opened up many questions about the grey area and the discretionary powers of Governor
- One who can be called for forming the govt
  - \* B.S. Yeddyurappa was given 15 days to prove his majority, when the CM designate himself asked for only a week
- Two who can be selected as Pro term speaker
  - \* Bopaiah as Pro Tem Speaker to conduct the floor test, where he was criticized by the Supreme Court in 2011 for biased conduct

##### History of Governor office

- Through the course of the early 20th century, the Indian nationalist movement managed to extract gradual and incremental reforms towards responsible government from the British rulers.
- These reforms culminated in the Government of India Act, 1935 which established provincial legislative assemblies elected from a limited franchise.

- However, in order to ensure that overriding power remained with the British, the Act retained the post of Governor (a holdover from the old, “diarchy” system), and vested him with “special responsibilities” that, in essence, allowed for intervention at will.

#### Why was it retained?

- There was a dearth of competent legislators in the States;
- That a certain amount of centralization of power was necessary in a nascent state such as India
- Driven by concerns about maintaining national integrity and preventing disintegration after the trauma of Partition
- They were committed to federalism — but not too much federalism, for fear of secession

Concerned members of the CA were assured that the Governor would remain only a constitutional post and would have no power to interfere in the day-to-day administration of the State. But the office of the Governor represented a “choke point” in the Constitution (ordinances and emergencies are others), where federalism and the popular will were to be kept in check from above, if the occasion ever arose.

#### Example from the past

- Soon after the first general elections, the State of Madras went to the polls in 1952. In a 375-member Assembly, the
  - \* United Democratic Front (UDF), a coalition of parties, held 166 seats.
  - \* The Congress finished with 152.
- The Governor, Sri Prakasa, ignored the UDF’s claim to form the government, and instead invited the Congress, which did form the government with Rajaji as Chief Minister, after engineering several splits and defections (including through offers of cabinet posts).
- The UDF’s communist orientation rendered it ineligible to govern (no matter how the people voted), and it was incumbent upon the government to ensure an orderly government.

Karnataka has just been the most recent example demonstrating that the Governor has enough discretion to skew the political process in the direction that the Central government desires.

#### Way forward

- The idea of the Governor standing as a bulwark against secessionism or
- Providing legislative expertise to States otherwise starved of it, are no longer valid justifications.
- On the other hand, the Governor’s interference with the democratic process is both real and continuing

So, if the purpose is not being served why not remove the role of the Governor? Instead clearly specify the rules governing government-formation in the Constitution itself, and reduce swearing-in to a purely ceremonial action, to be performed by the Chief Justice of the relevant High Court

### **8. Model Code of Conduct Violation Reporting App**

#### Context

- The Election Commission will launch a multi-lingual mobile application empowering people across the country to share evidence of malpractice by political parties, their candidates and activists ahead of the 2019 Lok Sabha polls, directly with the electoral body.

#### Details

- This was made available for the first time in Bengaluru in the run-up to the recently concluded Karnataka Assembly polls.
- It allows for sharing of photos and short audio and video clips from the spot itself.
- Geo-location of the reported incidents will also get recorded and the officials concerned will immediately receive the alerts. This will ensure an effective response

#### Significance

- Through this mechanism, the EC intends to encourage larger public participation in checking corrupt practices and ensuring a free and fair election process
- The application, part of the steps taken by the Commission to prevent abuse of money and muscle power

#### Issues with Social Media Bots

- The growing abuse of social media bots for influencing public opinion has emerged as another major challenge for the Election Commission and plans are on to devise a counter mechanism.
- These bots are automated accounts often active on popular social media platforms like Twitter and Facebook, which use Artificial Intelligence to trigger and influence political debates with an objective to shape public opinion.
- Experts have found evidence that bots are also programmed for spreading fake news on the Internet.
- Research work in several international institutions over the past two years, including the Oxford University, have recognised the influence of such bots in the Brexit referendum and also in the United States (2014) and the French (2017) presidential elections.

#### Steps taken by EC

- A social media cell is already functional.
- In order to address such challenges in the cyber world, an entire floor at the EC headquarters has been dedicated to the development of an independent and advanced computer operations infrastructure having full access control.



## 9. National Anthem

### Prevention of Insults to National Honour Act, 1971

- As provided in Section 3 of the Act, whoever intentionally prevents the singing of the Jana Gana Mana or causes disturbances to any assembly engaged in such singing shall be punished with imprisonment for a term, which may extend to three years, or with fine, or with both.
- This act is applicable in whole of India (including Jammu & Kashmir) and it prohibits the desecration of or insult to the National Flag, Constitution, National Anthem, India's Map etc.
- The law is silent on 'sitting' or 'standing' while the Anthem is playing.

### Laws

- Article 51A of the Indian Constitution states that it is the duty of every Citizen of India to abide by the Constitution and respect its ideals and institutions, the National Flags and the National Anthem
- Kerala slapped IPC Section 124A (sedition) on seven people, including two women, after they failed to stand when the National Anthem was being played in a Thiruvananthapuram theatre

### Bijoe Emmanuel vs. State of Kerala

- The 1986 Supreme Court judgment which was dealing with the expulsion of three children who belonged to the Jehovah's Witnesses sect, for refusing to sing the national anthem in school
- The court held that forcing the children to sing the anthem violated their fundamental right to religion.
- "Standing up respectfully when the National Anthem is sung but not singing oneself clearly does not either prevent the singing of the National Anthem or cause disturbance to an assembly engaged in such singing so as to constitute the offence mentioned in s. 3 of the Prevention of Insults to National Honour Act..."
- The Fundamental Rights of the appellants under Art. 19(1)(a) and 25(1) have been infringed and they are entitled to be protected.
- "We only wish to add: our tradition teaches tolerance; our philosophy preaches tolerance; our constitution practices tolerance; let us not dilute it."

### Shyam Narayan Chouksey vs Union Of India

- In Shyam Narayan Chouksey case (National Anthem Order), the Supreme Court directed all cinema halls to play national anthem at the start of movies.

### Why such move?

- According to the court, the practice would "instill a feeling within one a sense of committed patriotism and nationalism." Also, the protocol of showing respect and honour to the anthem and flag is rooted in "our national identity, integrity and constitutional patriotism."

- The court observed that it is the duty of every person to show respect when the national anthem is played or recited or sung under the Prevention of Insults to National Honour Act of 1951.

### **Playing of national anthem in cinema halls optional: Supreme Court**

#### Supreme Court orders:

- Current order: the playing of national anthem in cinema halls before screening of movies is optional.

#### Supreme Court's observations:

- People cannot be forced to carry patriotism on their sleeves and it cannot be assumed that if a person does not stand up for the national anthem, he or she is less patriotic.
- The society does not need "moral policing"
- Next time, the government will want people to stop wearing T-shirts and shorts to cinemas saying this would disrespect the national anthem.
- The exemption granted earlier to disabled persons from standing in the cinema halls when the national anthem is being played, shall remain in force till the committee takes a decision.

### **B.R. Sharma Committee**

#### Objective

- The committee would make recommendations on the regulations for playing/singing of the national anthem and suggest changes in the Acts and orders relating to the Prevention of Insults to National Honour Act, 1971

#### Composition

- The committee will have representations from the Ministries of Home Affairs, Defence, External Affairs, Women and Child Development, Human Resource Development, Culture, Parliamentary Affairs, Law, Minority Affairs and Information and Broadcasting, and the Department of Empowerment of Persons with Disabilities.

## 10. Should we do away with the I&B Ministry?

### **Yes**

#### Fact

- Sardar Vallabhbhai Patel briefly handled the Home Ministry as well as Information and Broadcasting (I&B) Ministry.

#### How did the Ministry assist in initial days of Independence?

- He used the I&B portfolio to reach out to the people with urgent messages during the country's formative and most difficult period.
- That time was marked by post-Partition riots, the difficulty of settling millions of migrants from Pakistan, the problem of integrating more than 500 princely states and so on.

- It was also a time when literacy was very low and the circulation of newspapers even lower. Under those circumstances, All India Radio (AIR) was the only institution which could pass on the government's momentous messages to both officials and the people.
- After the Constitution was adopted, AIR rendered a huge service to India's culture not only by collecting all the available information on classical music in the country but also by getting both Carnatic and Hindustani music recorded by ace maestros.
- It also propagated new agricultural methods to reach out to the farmers directly and played a crucial role in bringing about the Green Revolution.

#### Conferring autonomy

- The founders of our Republic were acutely alive to the importance of promoting the autonomy of our democratic institutions
- Jawaharlal Nehru, speaking in the Constituent Assembly in 1948, said that our final goal should be to endow AIR with the same autonomy and strength as what is given to the BBC.
- B.G. Verghese Committee
  - \* For over three decades beginning with Chanda committee report in 1966 and continuing through the reports of the Verghese Committee (Akash Bharti) in 1978 and the Joshi Committee in 1985, recommendations for broadcasting reforms were put forth. This need for autonomy was deeply felt soon after the emergency period.
  - \* The Janta Government had appointed a Working Group on the autonomy of the Akashwani and Doordarshan in August 1977.
  - \* The committee noted that the people want an independent corporation because, the executive, abetted by a captive parliament, shamelessly misused the Broadcasting during emergency and this must be prevented for all times.

#### International experience

- It is important to note that no advanced democracy, be it in Western Europe or in North America, has a Ministry called I&B. Those democracies instead have independent commissions.
- In the U.S., for example, the Federal Communications Commission has been effective in regulating the functions of television companies for more than a half a century.
- The BBC enjoys financial autonomy as the citizens pay fees compulsorily and directly to it. As a consequence of this freedom, the BBC sometimes takes on the British Prime Minister as well, not to speak of the government.
- Prasar Bharati, cannot enjoy true autonomy without financial independence.

#### Conclusion

- Public broadcasting services are autonomous in every democracy, though private channels are as prevalent as they are in our country.
- If a Minister is there for the portfolio, they interfere in the functioning of such institutions by way of self-employment. Hence, the urgency to abolish this portfolio.

#### **No, it needs reformation**

##### What is the Ministry's mandate?

- It administers the print industry, the private broadcast industry, films, and Prasar Bharati.
- It also oversees numerous allegedly autonomous institutions ranging from film institutes to the Registrar of Newspapers for India.
- It is the principal media outreach mechanism of the government of the day. It discharges that responsibility through the Press Information Bureau.

##### Incremental reform

- Reform has to be incremental. Carve out pieces of the Ministry, reform and liberate them one by one.
- The Cinematographic Act can easily be repealed and the Censor Board abolished and replaced with a Programme and Advertising Code as it is for the television industry.
- Similarly, the private television industry and radio would need two sets of regulators —
  - \* A Broadcast Regulatory Authority of India to perform licensing and
  - \* Other techno-commercial functions but with very restricted penal powers, and a self-regulatory framework embedded in statutory regulation to monitor content, much like other professional bodies that have the powers of peer review.

If Prasar Bharati has to truly become a public broadcaster, it has to be liberated from the apron strings of the I&B Ministry. There can be no autonomy if its funding continues to be routed through the Ministry, and the Minister remains accountable to Parliament for both its omissions and commissions

#### **11. National parties under RTI Act: EC clarifies**

##### context

- The Election Commission said national parties are public authorities under the RTI Act as declared by the Central Information Commission

##### CIC order

- The CIC order had said, all the information about the contributions received by these parties as well as their annual audited accounts, as and when submitted to the Commission, are put in public domain.

## 12. PMO seeks change in UPSC allocation

- The Centre is considering a major change in the allocation of services to successful candidates of the civil services examination.
- The Prime Minister's Office (PMO) has asked the department concerned to examine if the services can be allocated after the completion of the foundation course.
- The duration of the foundation course for officers of almost all the services is three months. At present, service allocation to the candidates selected on the basis of the civil services examination, conducted by the Union Public Service Commission (UPSC), is made well before the commencement of the foundation course.
- The PMO has desired to examine if service allocation/cadre allocation to probationers selected can be made after the foundation course, as per the communication sent by the Personnel Ministry to different cadre-controlling authorities.

### Seeks feedback

- The departments have been asked to examine the feasibility of giving due weightage to the performance in the foundation course, and making service allocation as well as cadre allocation to all-India services officers based on the combined score obtained in the exam and the foundation course.
- The Indian Administrative Service (IAS) and Indian Police Service (IPS) are all-India services.
- The departments have been asked to give their feedback on the proposal to allocate other Central services such as the Indian Revenue Service and Indian Telecommunications Services.

## 13. Steering reform in clogged courts

- The spotlight was on the Bombay High Court in early May when one of its judges sat well past midnight hearing cases before the month-long summer break kicked in. While this was a rare occasion in the court's 156-year history, the incident highlights the systemic issues common to courts in India.
- Ad hoc measures such as what the judge did, though laudable and well-meaning, hardly resolve these issues. Instead, they can only be addressed through a transformation of court processes.

### Two areas of concern

- While there is general acceptance that the Indian judicial system suffers from case delay and the use of antiquated methods, the discourse on judicial reform remains focussed on areas such as appointments and vacancies.
- It is time that organisational barriers and court processes that also contribute to case delay are studied. We focus on two areas that greatly affect court efficiency: case listing practices and court infrastructure.

- The need to scientifically determine how many cases should be listed per day cannot be stressed enough. It is not uncommon to see over 100 matters listed before a judge in a day. When a judge is pressed for time, not only does the quality of adjudication suffer but it also means that several cases will inevitably go unheard.
- Matters listed towards the end (usually cases near the final stage of hearing) tend to be left over at disproportionate rates and often end up getting stuck in the system.
- The consequences are manifold, affecting judges, lawyers, registry staff and, ultimately, case disposal. The uncertainty around which cases will come up for hearing means neither judges nor lawyers can plan their preparation.
- This situation compels lawyers to waste time waiting in court and enables them to cite the simultaneous listing of multiple cases as an excuse for adjournments. Registry staff must manage the massive task of re-listing leftover matters in an already bulging docket, instead of streamlining case flow.
- The second issue is infrastructure: from inadequate support staff for judges to the dearth of basic courtroom facilities. Without research and secretarial support, judges are unable to perform their functions in a timely manner.
- For instance, in a private interview, a judge said that even though he managed to hear close to 70 cases in a day, it took two days for the stenographers to finish typing the orders. A 2016 report published by the Supreme Court showed that existing infrastructure could accommodate only 15,540 judicial officers against the all-India sanctioned strength of 20,558. The lack of infrastructure also raises serious concerns about access to justice.
- A recent Vidhi study on district courts in the National Capital Region found that even basic needs such as drinking water, usable washrooms, seating and canteen facilities are often not available in court complexes.
- Solutions for such challenges will require a fundamental shift in how courts are administered.

### Looking at modernization

- Courts must become more open to applying management principles to optimise case movement and judicial time. In this, external support agencies competent in strategic thinking should be allowed to work with judicial officers to understand and help the institution function better.
- This is already a widely-adopted practice in executive departments across the country. Courts have partially realised this need and created dedicated posts for court managers (MBA graduates) to help improve court operations. But more often than not, court managers are not utilised to their full potential, with their duties restricted to organising court events and running errands.



**Way Forward**

- Judicial policymakers will also have to expand their reliance on empirical data and courtroom technology. On the former, there appears to be little quantitative evidence available to back judicial policies, from how long cases at various stages actually stay in the case pipeline to audits of judicial infrastructure.
- Recording and analysing appropriate court-related data is thus the first step in addressing any problem that plagues courts — from arriving at reasonable case listing limits to improving infrastructure.
- Second, court processes must be modernised, and the role of technology is critical. Courts have taken various initiatives over the years to digitise case records and filing; the case information system (CIS) 2.0 is currently being implemented across the country.
- But as a judge rightly pointed out, using technology in courts cannot remain limited to digitising records alone but must affect how cases actually move through the system. Initiatives such as CIS must be supplemented with file-tracking and knowledge management systems, to help courts achieve an optimal level of functioning.
- For courts in India to dispense speedy justice, there must be a change in leadership thought and the willingness to seek help where it is evidently required.

**14. The Meghalaya example**

- As the first State to pass a social audit law, its experience is instructive on how to increase awareness of entitlements
- Nearly 300 people, mostly women, gathered in a community hall in lewshillong village, Meghalaya waiting for the “social audit meeting” to begin.
- They wondered what the ‘social audit’, that had unfolded in their village over the past five days, was going to amount to.

**Social Audit:**

- The Meghalaya exercise demonstrated how social audits can be developed as an ongoing process through which citizens participate in the planning, implementation and monitoring of the programme.
- Meghalaya is a Sixth Schedule Area, so the audits had to be built on traditional tribal institutions, leveraging their inherent strengths and facilitating their engagement with contemporary democratic practices.
- The audits were deliberately positioned to be a platform for sharing information about schemes, and enhancing awareness amongst people about their entitlements;
- Detecting beneficiaries who were eligible, but had been left out;

- Recording people’s testimonies;
- Identifying priorities for inputs for planning; registering of grievances; and
- Pinpointing systemic shortcomings.
- The critical requirement of recording financial and procedural irregularities and deviations between fact and record remained a core part of the exercise.
- The audits helped identify and bring about evidence-based policy changes.
- More than 21 issues were identified based on pilots alone that needed a change in policy, in the interest of the community.
- For instance, several instances of local discretion in drawing up pension beneficiary lists for the National Social Assistance Programme (NSAP) and the Chief Minister Pension Programme were recorded, because the CM pension provided twice as much remuneration as the NSAP.
- At a culmination meeting, the government announced parity between the two schemes, benefiting thousands of pensioners..

**Citizen oversight**

- In India today, there is a growing acknowledgement of social audits as a credible means of institutionalizing citizen oversight.
- There is, therefore, an urgent need to come up with a working protocol for facilitating social audits across a range of interventions.
- The experience of Meghalaya has taught us how social audit is intrinsically related to processes of community participation and grievance redress.
- The Meghalaya pilots have also helped formulate a practical framework through which that can be done. Draft rules were prepared on the basis of consultation.

**Conclusion**

- Bypassing and rolling out a social audit law, Meghalaya has made a breakthrough in the framework of accountability to the people.
- Social audit is much more than just a tool of “good governance”.
- Knowing the reluctance of most government establishments to share power or become accountable, this initiative is unlikely to spread or become robust, unless driven by citizens groups.
- Civil society needs to shape the social audit campaign, be a watchdog, and staunchly protect the independence of the process.
- Social audits must become part of the demand for effective legislation for the whole country.

## 15. Dilemmas in Civil Services Selection

### Esteem of UPSC remains intact

- The entire selection process has till now not been hit by any scandal, something very few other prestigious systems of recruitment in the country can claim.
- Also, the UPSC has had an enviable record of relative freedom from graft and politics, against the sordid image of most of the Public Service Commissions in the States, where jobs have often been sold.

### Inclusiveness in selection Process

- Decades ago the urban elite and middle classes managed to hog the services now we can recognise and respect the diversity that is Bharat.
- This year, many from rural areas; 120-odd were from the minority communities and 240 women were selected

### Issue Areas

- Pushing up of the age limit and the number of times a candidate may take the examination. Recent years have seen older candidates succeed. This has certainly had a negative impact on the utility of training.
  - \* Is there, therefore, not a case for lateral entry through another set of examinations, whereby older individuals with past job experience can still get into the civil services at appropriate levels?
- Public servant corruption is still a harsh reality in urban and rural settings.
- More strident complaint against young recruits is their lack of preparedness to cope with political interference

Until we have an honest and fearless civil service we will not have fulfilled the dream of Sardar Patel, to whom a strong bureaucracy was the sine qua non of democracy.

## 16. National Policy for Domestic Workers

Ministry of Labour & Employment has said the salient features of which are as follows:

- Inclusion of Domestic Workers in the existing legislations
- Registration of Domestic workers.
- Right to form their own associations, trade unions
- Right to have minimum wages, access to social security, protection from abuse, harassment, violence
- Right to enhance their professional skills
- Protection of Domestic Workers from abuse and exploitation
- Domestic Workers to have access to courts, tribunals, etc.
- Establishment of a mechanism for regulation of concerned placement agencies.

### State Laws

- Many of the State Government like Rajasthan, Kerala, Punjab, Tamil Nadu and Tripura have included domestic workers in the schedule of the Minimum Wages Act and they are, therefore, entitled to file cases before the concerned authorities in case of any grievance in this regard.

### Structure

- The ministry plans to set up a central board/trust where employers will register maids, drivers and all other household helps, who will be paid equally on the basis of the work they do.
  - \* The board will not only define part-time, full-time or live-in work, but will also set a wage-slab—slab rates will be fixed as per the quantum and nature of work.
  - \* The policy also talks about facilitating organisation of domestic workers as well as ensuring social security “which may include contribution from the employer/worker”.
  - \* Also, payments to workers will be routed through the board.

### Significance

- This is expected to end the bargaining power of both employers and employees.
- About 5 million domestic workers in the country, including 3 million women, will benefit from the move.

### Issue Area

- It needlessly complicates routing of payment
- it ignores the fact that the wages are determined by many factors—apart from nature and quantum of work, location (wages differ between periurban areas, small cities and metros, and even within a metro or a city, these vary with locality), skills, etc, matter.
  - \* So, the “equal pay for equal work” principle the policy espouses could bring down the chances of employment of a worker in an area where the median wage is low, if the slab rates are fixed towards the higher end of the current wage-range.
- Also, mandatory social security contributions are an unfair imposition at the lower end of the wage spectrum as they drastically cut the “in-hand” income
- And as for allowing unionisation, unions’ harassment, many formal sector companies have moved towards hiring more contract-workers in recent years.

# ECONOMY

## 1. Coir Industry.

- Coir or coconut fibre, is a natural fibre extracted from the husk of coconut and used in products such as floor mats, doormats, brushes and mattresses.
- Coir is the fibrous material found between the hard, internal shell and the outer coat of a coconut.

### Coir Board of India

- It is a statutory body established under the Coir Industry Act 1953 for the promotion and development of the coir (coconut fibre) industry in India.
- It is based in Kochi and Alappuzha.
- The board functions under the Ministry of Micro, Small and Medium Enterprises.

### Types

Coir Industry in India consists of two distinct segments namely —

- White fiber- It is smoother and finer but weaker. It is obtained from immature green coconuts. It is used primarily for rope manufacture.
- Brown Fiber- It is obtained by harvesting fully mature brown coconuts. It is stronger and thus used to make objects like brushes, mats etc.

### Production

- India accounts for more than two-thirds of the world production of coir and coir products.
- Kerala is the home of Indian coir industry, particularly white fibre, accounting for 61 percent of coconut production and over 85 per cent of coir products.

### Significance

- With increasing awareness of environment-friendly products, the demand for coir-based items is on the rise in the international and domestic markets.
- Demand for floor coverings, mats and geotextiles have improved
- Several private companies are selling coir products online.
- The demand for coir geo textiles and rubberised coir sheets used in the mattress sector is high in countries such as the U.S.

### Issue Area

- Indian exporters face competition from countries such as Indonesia, Vietnam and Sri Lanka on the price front and the demand is growing for ready-to-use coir pith products.

## 2. Global Wind Summit

- The first edition of the Global Wind Summit will be held in Hamburg (Germany)
- The conference on wind is the largest and most important meeting of the wind industry worldwide.
- The event will provide a platform for experts from across the globe to discuss innovative and green technologies for harnessing wind energy
- The focus of the conferences would be on three major subjects. Dynamic markets, cost efficiency and smart energy.
- India is fourth largest country -- after China, the US and Germany -- in terms of wind energy installation capacity at around 33 GW

## 3. Indian Petroleum & Explosives Safety Service

### Context

- The Union Cabinet has approved the Cadre review and formation of Group 'A' service of the technical cadre of Petroleum & Safety Organization (PESO) in the name of Indian Petroleum & Explosives Safety Service (IPESS).

### Petroleum & Safety Organization (PESO)

- PESO is a subordinate office under Department of Industrial Policy & Promotion (DIPP).
- The organization is serving the nation since 1898 as a nodal agency for regulating safety of substances such as explosives, compressed gases and petroleum.
- Today, the organization deals with wide range of subjects related to explosives, petroleum, compressed gases, pressure vessels, gas cylinders, cross-country pipelines, Liquefied Natural Gas (LNG), Compressed Natural Gas (CNG), Auto Liquefied Petroleum Gas (Auto LPG) etc.

### Significance

- The measure will enhance the capacity and efficiency of the organization and it will also enhance career progression of its Group 'A' officers.

## 4. Insurance Regulatory and Development Authority of India (IRDAI)

- It was created on the recommendations of the Malhotra Committee report
- It is an autonomous body which regulates and develops the insurance industry in India.
- It was constituted by an act of parliament called Insurance Regulatory and Development Authority Act, 1999.

- The IRDA Act allows private players to enter the insurance sector in India.
- Insurance is a subject listed in the Union list in the Seventh Schedule to the Constitution of India.
- The agency's headquarters is in Hyderabad

#### **Malhotra Committee**

- Private players be included in the insurance sector.
- Foreign companies be allowed to enter the insurance sector, preferably through joint ventures with Indian partners.

#### **5. IP Nani**

- Mascot IP Nani is a tech-savvy grandmother who helps the government and enforcement agencies in combating IP crimes with the help of her grandson "Chhotu" aka Aditya.
- The IP mascot will spread awareness about the importance of Intellectual Property Rights (IPRs) among people, especially children, in an interesting manner.
- This character is also in line with the World Intellectual Property Organization's (WIPO) campaign for the World IP Day which celebrates the brilliance, ingenuity, curiosity and courage of the women who are driving change in our world and shaping our common future.

#### **Details**

- The first and foremost objective of the Policy is "IPR Awareness: Outreach and Promotion". Under this objective, one of the key focus areas is awareness on IPR for school children, as it is essential to nurture creativity and the ability to innovate starting out from a young age.
- Cell for IPR Promotion and Management (CIPAM), a professional body under the Department of Industrial Policy and Promotion (DIPP) collaborated with the European Union Intellectual Property Office (EU-IPO) to produce a series of animated videos on IPRs for children with IP Nani as their central character.

#### **6. MGNREGA Issues**

##### **Progressive Measures**

- The scheme is meant to be demand-driven in the sense that the government is mandated to provide work within 15 days of a worker seeking work. Otherwise the worker is entitled to an unemployment allowance.
- A second key provision of the Act pertains to payment of wages within 15 days of completion of work, failing which a worker is entitled to a delay compensation of 0.05% per day of the wages earned.

##### **Labor Budget (LB)**

- Under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) 2005 refers to advanced labour estimate for execution of a shelf of works for the next financial year.

- The advance assessment of labour demand in a district takes into account seasonality aspects along with the examination of employment and livelihood opportunities in the respective rural areas.
- LB contains the details of anticipated demand from unskilled manual work in the district and the strategy for engagement of workers in the works covered under the programme.
- District Programme Coordinator (DPC) has to ensure a strict adherence to the principle of bottom-up approach from planning to approval of the selected shelf of works by each of the gram sabha in village panchayats of the district.
- On the basis of LB estimates, the Central Government projects its central liability towards the districts.

##### **Issue Area**

- First, budget allocation over the years has been insufficient.
  - \* While there has been an increase in the nominal budget in the last two years, after adjusting for inflation, the budget has actually decreased over the years.
  - \* The real budget of 2018-19 is much lower than that of 2010-11.
- Second, even this low budget allocation has undergone various kinds of curtailment.
  - \* The Centre, on its part, has been using an arbitrary "Approved Labour Budget" to cut down funds requested by States (using the National Electronic Fund Management System, or Ne-FMS), making this a supply-driven programme.
  - \* Ne-FMS guidelines issued in 2016-17 say the Management Information System (MIS) "will not allow" States to "generate more employment above the limits set by Agreed to LB".
  - \* This meant that the work demand of workers was not even getting registered and the MIS was being used as a means to curb work demand. Thus the "approved labour budget" puts a cap on funds.
- The third point is about stagnating MGNREGA wages.
  - \* Delinking of MGNREGA wage rates from the Minimum Wages Act (MWA), 1948 has contributed to this.
  - \* MGNREGA wages are a less lucrative option for the marginalized, being lower than the minimum agricultural wages in most States.
  - \* As primary beneficiaries of the Act, women, Dalits and Adivasis could be the most affected and pushed to choose more vulnerable and hazardous employment opportunities. Such contravention of the MWA is illegal.

MGNREGA now faces a triple but correlated crisis — a lack of sufficient funds, rampant payment delays, and abysmal wage rates.



## 7. **Micro-Irrigation Fund**

### Context

- The Cabinet Committee on Economic Affairs (CCEA) chaired by Prime Minister Narendra Modi has approved an initial Corpus of Rs5,000 crore for setting up of a dedicated 'Micro Irrigation Fund' (MIF) with NABARD under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)
- An allocation of Rs2,000 crore has been made for this fiscal while Rs3,000 crore has been earmarked for the 2019-20 fiscal.
- The fund has been set up under NABARD, which will provide this amount to states on concessional rate of interest to promote micro-irrigation

### Details

- The dedicated fund would supplement the efforts of PMKSY programme and help bring about 10 lakh hectares under micro-irrigation.
- The fund will facilitate States to mobilize resources for their initiatives, including additional (top up subsidy) in implementation of PMKSY-PDMC to achieve the annual target of about 2 million hectares per year during the remaining period of 14th Finance Commission.
- The states might access this fund for innovative integrated projects, including projects in the Public Private Partnership (PPP) mode and also for incentivizing micro irrigation.
- Farmers Producers Organization (FPO)/Cooperatives/ State Level Agencies can also access the funds with state government guarantee or equivalent collateral. Farmers Co-operatives may access this fund for innovative cluster based community irrigation projects.

## 8. **NABH (Nextgen Airports for Bharat) Nirman initiative**

- Revising regulatory framework for airports, strengthening of Airports Authority of India (AAI), forging partnerships with states, having multiple airports in metros and boosting air navigation system to manage crowded airspace would be the key aspects under the initiative

### Three key aspects of NABH Nirman are

- fair and equitable land acquisition,
- long-term master plan for airport and regional development
- Balanced economics for all stakeholders.

## 9. **Nokku Kooli or wages for looking**

### Meaning

- It signifies the obnoxious practice in Kerala of extorting money from hapless employers, shopkeepers or households by loading-and-unloading workers. Though abhorred by every citizen, it has survived for decades with the support of the political class.

- 'Nokku Kooli is a euphemism for extortion by organised labour unions whereby wages are paid to trade union activists to allow common householders, investors, or builders to unload belongings or materials using machines or their own labour. This happens with the tacit support of political parties including those in government.'

### Why was it not stopped?

- Nokku Kooli is a key source of income for low-rung union bosses.

### Issue Area

- Nokku Kooli is often blamed for the industrial backwardness of Kerala.

### Law

- CPI (M)-led Pinarayi Vijayan government has banned the practice, beginning May 1. No legal framework has been put in place, although the government is considering making Nokku Kooli a non-bailable offence.
- The state government said strict warnings had been issued to trade unions against threatening entrepreneurs demanding more money or the right to work.

### Comment

- "You are, say, moving house. The worker comrades demand a prodigious sum to load/unload; so you decide to do it yourself with help from friends. The comrades look on from a distance; when you're done, they ask to be paid the demanded wages. If you don't pay up, there is a bit of violence and you get hurt. The revolution in Kerala says the worker must be paid even if he doesn't work. That is a kind of workers' paradise even Marx did not anticipate"- Writer from Kerala

## 10. **Permanent Residency Status (PRS) scheme**

- Two years after it was launched by the Union government, the Permanent Residency Status (PRS) scheme providing a host of facilities for foreigners who invest at least ₹10 crore under the Foreign Direct Investment (FDI) route is yet to find a single applicant.
- A senior Home Ministry official said no foreigner had applied, but cautioned that the lack of applicants should not be seen as no foreign investment.
- Except Pakistani citizens or third-country nationals of Pakistani origin, the scheme is open for citizens of every country.
- Most European Union countries, the U.S., Canada and others offer permanent residency to foreign investors.
- The U.S. offers the EB-5 visa programme where foreigners could apply for permanent residency if they created employment opportunities for 10 people with a minimum investment of ₹6.5 crore.
- An official said this was not a citizenship that was being offered to foreigners and was subject to review every 10 years.

- The Union Cabinet had cleared the PRS in 2016 to boost its Make in India policy. The scheme is open for foreign investors who invest a minimum of ₹10 crore within 18 months or ₹25 crore in 36 months.
- The foreign investment should result in generating employment to at least 20 resident Indians in every financial year. PRS will be granted for a period of 10 years with multiple entry and can be renewed for another 10 years. There will be no requirement of registration with the Foreigners Regional Registration Office (FRRO).
- The PRS card holders are also eligible to buy residential property in India. Among foreign countries, the maximum investment proposals in critical sectors such as telecom and defence that was cleared by Home Ministry in 2017, were from China, the U.K., the U.S. and Mauritius.

#### Security clearance

- The Ministry gave security clearance to more than 1,071 proposals in 11 critical sectors like defence, telecommunications, information and broadcasting.
- Over 90% of the FDI proposals have come through the automatic route, an official said. Among the foreign countries, the U.S., China (including Hong Kong), Mauritius and the U.K. have received the green signal for the most number of projects at 10 each, followed by Germany at six, Bangladesh at three and Italy, Israel, Netherlands and Switzerland at two each.

#### **11. Phased Manufacturing Programme (PMP)**

- Ministry of Electronics and IT
- It is aimed at increasing use of locally-produced electronic components in mobile phones, to other product segments as well
- It also aims to promote the indigenous manufacturing of populated printed circuit boards, camera modules and connectors in 2018-19, and display assembly, touch panels, vibrator motor and ringer in 2019-20.
- The notified PMP covers mechanics, die cut parts, microphone and receiver, key pad and USB cable in the current financial year.
- The scheme would promote domestic production of mobile phones by providing tax relief and other incentives on components and accessories used for the devices.

#### Current status

- Phased manufacturing programme (PMP) at present is meant to promote use of locally made components in mobile phones.

#### Why?

- The move is in line with the government's target to have net zero import of electronics by 2020 under Digital India programme.

- At present, India imports basic chipset for mobile handsets but there has been a spurt in the production of other mobile components. Over the next 10-12 years, PMP aims to make India a manufacturing hub of mobile components.
- With PMP, the share of locally-procured components in the manufacturing of feature phones will go up from about 15 to 37 per cent and for smart phones from about 10 to 26 per cent, leading to the setting up of a "robust indigenous mobile manufacturing ecosystem in India."

#### **12. PRAAPTI App and web portal**

- PRAAPTI (Payment Ratification And Analysis in Power procurement for bringing Transparency in Invoicing of generators)
- It has been developed to bring transparency in power purchase transactions between Generators and Discoms.
- The App and Web Portal will capture the Invoicing and payment data for various long term PPAs from the Generators.
- This will help the stakeholders in getting month-wise and legacy data on outstanding amounts of Discoms against power purchase.
- PRAAPTI will also enable the consumers to evaluate financial performance of their Discoms in terms of payments being made to the generation companies.
- The Portal would also help DISCOMs and GENCOs to reconcile their outstanding payments.

#### **13. Rural crafts from Bengal get GI Tag**

- The Chau mask of Purulia,
- The wooden mask of Kushmandi,
- The Patachitra,
- The Dokras of Bengal, and
- Madhurkathi (a kind of mat)

They have been presented with the Geographical Indication (GI) tag by the Geographical Indication Registry and Intellectual Property India.

#### **14. Samarth – Scheme for Capacity Building in Textile Sector**

- The broad objective of the new scheme is to skill the youth for gainful and sustainable employment in the textile sector covering the entire value chain of textiles, excluding spinning and weaving.
- The scheme is intended to provide demand driven, placement oriented National Skills Qualifications Framework (NSQF) compliant skilling programmes to incentivize and supplement the efforts of the industry in creating jobs in the textiles sectors.
- The scheme targets to train 10 lakh persons (9 lakh in organised and 1 lakh in traditional sector) over a period of 3 years (2017-20), with an outlay of Rs. 1300 crore.

### 15. Tea Development and Promotion Scheme

- The Scheme is aimed at supporting development of improved varieties and technologies for increasing production, productivity and quality of tea,
- promoting Indian tea in the overseas and domestic markets and encouraging value addition for the purpose of higher unit value realization of tea produced and marketed.
- It has a project outlay of Rs.1425 crore during the five year period of the 12th Plan

#### Significance

- Tea Board provides support for marketing of produce of small and medium plantation holders through auction centers

### 16. Union density

- The union density or union membership rate is the ratio of the number of employees who are members of trade unions to all the employees in a country or population
- Trade unions collectively bargain with employers for improved pay, conditions, and voice at work by means of the increased bargaining power that employees have together compared to what they would have as individuals.

### 17. Madhya Pradesh Gets India's First Smart Cities

#### Control Centre

##### Integrated Control and Command Centre (ICCC)

- The ICCC, installed in a building in Barkheda area of the state capital, would enable the authorities to monitor the status of various smart civic amenities in real-time through the sensors connected to it.
- ICCC is a cloud-based Universal Internet of Things (UIoT) platform developed by Hewlett Packard Enterprise (HPE).
- It can run multiple city command centre operations through its multi-efficiency capabilities.
- The GPS sensors installed in public transport buses, dial 100 vehicles, 108 ambulance services, smart poles, smart lights, traffic management cameras, public bike sharing, solid waste management, meteorological department updates, smart maps etc. would be linked to this centre, enabling the authorities to monitor the status of the civic amenities in real-time.

### 18. Unmanned Rail Crossing

#### Laws and Rules for claiming of damages

- A claim for damages for negligence of the defendant falls in the arena of a civil wrong called a tort action.
  - \* In relation to claims for railway accidents, the Railways Act provides for fixed compensation on predetermined scales.

\* It also provides a forum for passengers to make claims in the form of Railway Claims Tribunals situated in different parts of India. But there is a limitation.

\* Only a passenger on a train can make a claim before the Tribunal.

- Passengers of a bus or motor vehicle who may have been harmed after a collision with a train can only approach the Motor Accidents Claims Tribunal.

\* However, this tribunal can entertain the claim against the Railways also as a joint tortfeasor if the negligence of the Railways is established.

#### Supreme Court judgment (Union of India v. United India Insurance)

- It said that the duty of care for the Railways extends not only to those who use the Railways' services but also to people who are "neighbors" — namely, users of vehicles on roads that intersect with tracks.
- Consequently, there is a common law liability for the railway administration for an accident at an unmanned crossing, even in the absence of specific provisions in the Railways Act, where the Central government can direct the administration to lay manned crossings.
- An action at common law can be filed for nonfeasance because the Railways was involved in what are recognised as dangerous operations and hence is bound to take care of road users.

#### Precedents from England

- It took up the issue of whether there could be any breach or a common law duty on the part of the Railways if it does not take notice of the increase in the volume of rail and motor traffic at the unmanned crossing, and if it does not take adequate steps such as putting up gates with a watchman to prevent accidents at such a point.
- It said that there existed a precedent from England that was examined by the House of Lords — that the Railways should take all precautions that will reduce danger to the minimum.
- It approved the estimate made in Lloyds Bank Ltd. v. Railway Executive (1952) that if 75 to 100 vehicles crossed the level crossing per day, the Railways owed a duty of care at common law to provide for a gate with a watchman.
- non-exercise of the power of the government to direct the Railways to lay gates shall be construed as irrational.

#### Need for continuous audit

- The railway administration should have continuous audit of tracks; when new roads come on either side, traffic must be calibrated, adequate infrastructure built, and safety measures put in place.
- The Railways Act 1989 (through Section 124) provides compensation on strict liability basis.

- \* This means that “when an accident occurs in the course of working a railway” (a collision between trains, or when one is a train carrying passengers, or derailment, or any other accident with a train or any part of a train carrying passengers), then whether or not there has been any wrongful act, neglect or default on the part of the railway administration, an injured passenger or one who has suffered a loss can lawfully maintain an action and recover damages.

#### What should be done?

- Hitherto, responses to claims for compensation arising out of accidents have been on an ad hoc basis but it is time the government amends the Railways Act to provide for compensation on a proactive basis without driving victims or their families to file applications in Tribunals.
- The ex gratia payments will then be substituted by rights-based compensation regimes that will sensitise the Railways to administer their operations with greater focus on public safety.
- It is also essential to include within Section 124 of the Railways Act a provision for a claim from a “neighbour to a passenger” in the manner that the Supreme Court recognises, namely, a road user of a motor vehicle.

### **19. Why is the rupee in a free fall?**

#### Context

- The rupee fell against the U.S. dollar by a little over 2.5% in April, and 4.3% since the beginning of the year, making it the worst-performing Asian currency
- The rupee, however, is not the only currency to face depreciation. Other emerging economies like Indonesia, Argentina, Mexico and Turkey have seen a fall in their currencies. So the rupee's fall is part of a sell-off across emerging markets.

#### Prime reason

- After nearly four years of subdued and benign oil prices and the consequent improvement in the country's terms of trade, India once again faces its age-old vulnerability to high cost of oil import.
- U.S. dollar seems to be on a cyclical recovery path against other major currencies on the relative strength of the U.S. economy.
- Going by its 36-country trade-weighted real exchange rate index, the rupee is currently overvalued by more than 17% relative to 2005.
  - \* This highlights the structurally higher inflation in India not just in relation to the U.S., but vis-a-vis all its major trading partners and competitors as well.

#### Tight foreign policy of U.S. Federal Reserve

The U.S. Federal Reserve is expected to tighten its monetary policy stance in the coming months and years by taking steps towards slowing down the growth in U.S. money supply. This is considered the most likely reason for the sell-off.

- A slowdown in U.S. money supply growth affects the value of other currencies in two ways.
- For one, interest rates in the U.S. will begin to rise as the Fed's demand for various assets begins to drop.
  - \* The yield on 10-year U.S. Treasury Bonds has already risen to 3% from around 2% last year, amid the Fed's increasingly hawkish monetary stance.
  - \* This causes a rush among investors to sell their assets in other parts of the world and invest the money in the U.S., where they could earn higher returns. The consequent flow of capital from the emerging markets to the U.S. increases selling pressure on emerging market currencies and buying pressure on the dollar.
- Secondly, as the Fed begins to tighten money supply, the availability of dollars in the global market is likely to turn scarce, compared to other currencies.
- Both these factors affect the price at which traders, who try to speculate on future retail demand, are willing to buy the dollar using other currencies.

#### Import and export

- While the country's imports relative to its GDP is now much lower than the peak level reached in 2012-13, the performance of exports continues to be lacklustre.
  - \* In the financial year 2013-14, exports were 17.2% of GDP and by the financial year 2016-17, the ratio fell to 12.4% of GDP.
- In the traditional areas of exports, such as garments and textiles, where India was second only to China, the country now occupies third position in textiles and fifth position in garments.
  - \* The case of garments exports is interesting as in 2000 the share of clothing exports as a percentage of total global clothing exports of Bangladesh, Vietnam and India was 2.6%, 0.9% and 3% respectively.
  - \* By 2016, while India's share of global clothing exports has increased marginally to 4%, Bangladesh has improved its share to 6.4% and Vietnam's share is a stellar 5.5%.

This is a pointer to India's inability to gain market share in a global business which is consolidating among the top ten countries.

#### Manufacturing- Comparison with china

- Despite the claims of 'Make in India', India does not yet figure among the top ten exporters of manufactured goods.
- China now exports manufactured goods worth \$2 trillion (almost equal to India's GDP) and its share of global exports of manufactured goods increased from 4.7% in 2000 to 17.9% in 2016.
- The other worrisome trend is the rapid growth in imports of electronic goods, which was \$3.4 billion in 2011-12 and \$42 billion in 2016-17 — a massive 12-fold increase in five years.



- There is a distinct possibility that imports of electronic imports, mostly from China, will surpass oil imports in the near future.

#### Service sector issues

- The silver lining in India's current account in the past has been the export of services export.
- Indian IT services companies, which followed a low-cost global delivery model with success in the past, have not succeeded so far in graduating to the new world of artificial intelligence, machine learning and robotics.
- Growing trade protectionism in the West will certainly slow down the growth of exports of IT and IT-enabled services, unless Indian companies move up the value chain.
- Tourism and transfers from migrant workers in the Gulf have remained robust.

### **20. Hot-money risks seen rising as India courts 'bond tourists'**

#### Context

- A series of measures from the central bank to lure foreign buyers into the country's short-term debt market could easily backfire, investors fear, exposing the economy to volatile "hot money" flows.

#### Restriction removal

- RBI lifted a restriction limiting foreign investors to buying bonds with three years or more to maturity and also gave them access to short-term sovereign treasury bills.
- The RBI's lifting of the maturity restriction came after government bonds tanked when sovereign bond auctions failed to attract many buyers, followed by a spike in yields when surprisingly hawkish minutes of a monetary policy meeting raised fears of the RBI hiking interest rates.

#### Cause of concern

- The new rules have stoked fears of an influx of "bond tourists" and the associated rapid-fire switching in and out of short-term debt by foreign traders.
- It could make India's financial markets more vulnerable at a time when the rupee has been the worst performer in the region, high oil prices are driving up the current account deficit, and interest rates could soon rise on heightened inflation risks
- It encourages more short term inflows and therefore exposes India to more hot money flows and volatility in the long run
- Indian bonds have seen massive swings in the last month and the level of selling has picked up sharply.

#### Way forward

- India needs robust dollar inflows to help bridge its widening current account deficit and support the steep fall in the currency, but the RBI's new rules could make the economy more vulnerable to volatile dollar flows and scare off long-term 'patient' investors.

### **21. UN report for social inclusion**

#### Context

- The UN Economic and Social Survey of Asia and the Pacific 2018, the annual report from the UN Economic and Social Commission for Asia and the Pacific and urged countries to take advantage of high growth rate and share the benefits with the national society.

#### Details

- Governments of countries in the Asia-Pacific region are advised to take advantage of the currently favorable economic conditions in order to address vulnerabilities and enhance the resilience, inclusiveness and sustainability of their economies
- The report described South and Southwest Asia as the fastest growing sub region of the Asia-Pacific region and urged the countries to increase social spending.

### **22. GST Council approves simple return filing**

#### Context

- The GST Council veered around to giving up to Rs 100 incentive for digital payments for purchases by consumers, approved a new model for single monthly return and decided to turn the GSTN into a government-owned entity.

#### Incentivizing Digital Payments

- The meeting referred the issue of incentivising digital payments to a group of state finance ministers after some states wanted a negative list.
- Most member states on the panel were agreeable to the proposal of giving a concession of 2 per cent in GST rate (where the tax rate is 3 per cent or more) on business-to-consumer (B2C) supplies, for which payment is made through cheque or digital mode, subject to a ceiling of Rs 100 per transaction, so as to incentivise promotion of digital payments.

#### GST Network (GSTN)

- 51 per cent equity held by private entities would be taken over by the government and eventually the central government will hold 50 per cent and state governments (together) will hold 50 per cent
- The GSTN currently is 24.5 per cent owned by the central government and a similar percentage is held by state governments collectively. The remaining 51 per cent is with five private financial institutions – HDFC Ltd, HDFC Bank Ltd, ICICI Bank Ltd, NSE Strategic Investment Co and LIC Housing Finance Ltd.



### 23. RBI allows FPIs to buy T-bills; debt limit stays

- The Reserve Bank of India (RBI) has allowed foreign portfolio investors (FPIs) to invest in treasury bills issued by the central government.
- Foreign portfolio investors were also being permitted to invest in corporate bonds with minimum residual maturity of above one year.
- It further said investment in securities of any category [G-secs, State Development Loans or, in terms of this circular, corporate bonds] with residual maturity below one year shall not exceed 20% of total investment by an FPI in that category applies, on a continuous basis
- The circular was issued to bring consistency across debt categories and hence it was stipulated that investments by an FPI in corporate bonds with residual maturity below one year should not exceed 20% of the total investment of that FPI in corporate bonds.

### 24. Flipkart Walmart Deal

- Walmart has wrapped up Flipkart acquisition for \$16 billion
- Walmart will own around 77 per cent of the Bengaluru-based company in what is also being seen as the largest buyout for the US firm.
- The acquisition of Flipkart's majority share will also add group companies such as online fashion retailers Myntra and Jabong, logistics firm Ekart, and digital payments firm PhonePe to Walmart's portfolio.
- Walmart's investment, which primarily comprises purchase of Flipkart stock from existing shareholders that include Japan's Softbank Group, online marketplace eBay, South African technology firm Naspers and Flipkart co-founder Sachin Bansal, will include \$2 billion of new equity funding.

So, this will make India the biggest emerging market with players having majority interest from US-based Amazon, China's Alibaba and Walmart pitted against each other.

#### Why was this move taken?

It represents a huge vote of confidence in the Indian Consumption Story.

- According to national income statistics, private final consumption expenditure in the country for 2017-18 stood at \$ 1.5 trillion.
- Within that, the share of retail e-commerce sales was just over \$ 20 billion or 1.3 per cent.
- While consumer spending will continue growing at 9-10 per cent annually on the back of rising incomes, urbanisation and aspirations, the online retail segment is expected to expand four times as much — thanks to increased internet and smartphone penetration

#### Advantages

- The war between Flipkart and Amazon will not only create a vast infrastructure of supply chain but also a large number of jobs.

- Agriculture and infrastructure sectors will get a big boost due to competition between Flipkart and Amazon.
- Farmers will benefit from increasing demand.
- It can also boost overall consumer demand.
  - \* It will revolutionize Indian retail with low prices and a vast variety of consumer goods. Amazon's fight-back will ensure that prices remain competitive.

#### Issue Area

- Online sellers on Flipkart are jittery because Walmart can wipe them off. Walmart has a reputation of killing small businesses with ultra-low prices. They fear that Walmart might bring in its own private labels via Flipkart to the Indian consumers, adding to competitive pressures
- Fears from some trader and farmer groups, who contend the U.S. company is using the deal as a back-door entry into India's bricks and mortar retail market, and that it could squeeze out small corner shops that dominate Indian retail.
- In a way, the deal is a setback to the spirit of Indian entrepreneurship, with Flipkart succumbing to competition, instead of taking on US multinationals head on

### 25. Ministry moots special tourism package for NE

#### In news

- The Ministry of Development of North Eastern Region has recommended to the Finance Ministry higher allocation of funds and special package for development of tourism in the region

#### Details

- Under the North East Special Infrastructure Scheme (NESIDS), the DoNER Ministry is providing financial assistance for infrastructure projects relating to water supply, power and connectivity for promoting tourism in the region

#### **North East Special Infrastructure Development Scheme (NESIDS)**

- It will provide 100% funding from the Central Government to fill up the gaps in creation of infrastructure in specified sectors till March, 2020.

#### The new scheme will broadly cover creation of infrastructure under following sectors:-

- Physical infrastructure relating to water supply, power, connectivity and specially the projects promoting tourism;
- Infrastructure of social sectors of education and health.

**Benefits of NESIDS:**

- The assets to be created under the new scheme of NESIDS will not only strengthen health care and education facilities in the region but will also encourage tourism thereby the employment opportunities for local youth.
- The scheme will act as a catalyst in overall development of the region in the years to come.

**26. India to counter U.S. complaint on farm subsidies in WTO****Background**

- The U.S. had filed a counter-notification at the WTO Committee on Agriculture, alleging that "based on U.S. calculations, it appears that India has substantially under-reported its Market Price Support (MPS) for wheat and rice"
- The U.S. laid out its calculations of the value of India's MPS programme for the four years between 2010-11 and 2013-14 using publicly available data.
- India's apparent MPS for wheat appears to have been over 60% of the value of production in each of the last four years for which India has notified data
- MPS for rice appears to have been over 70% of the value of production in each of the years.

**India's Response**

- India notified the WTO that its MPS for rice in 2013-14 was just over ₹12,001 crore.
- That amounts to 5.45% of the total value of production, and well within the WTO's permitted cut-off of 10%.

**Conflict in terms**

- The WTO Agreement on Agriculture defines subsidies on the total value of agriculture production while the US has challenged India on the basis of support given to individual products, namely wheat and rice.
- Similarly, the agreement doesn't state the currency in which countries have to report their subsidy dole-out.
- The US wants India to report in rupee terms while India submits dollar-denominated numbers to the WTO.
- The US has identified several areas of potential concern with India's notification

**27. Cabinet approves new biofuels policy****Context**

- The Union Cabinet approved a national policy on biofuels that seeks to not only help farmers dispose of their surplus stock in an economic manner but also reduce India's oil-import dependence.

**Details**

- The policy expands the scope of raw material for ethanol production by allowing use of sugarcane juice, sugar containing materials like sugar beet, sweet sorghum, starch containing materials like corn, cassava, damaged food grains like wheat, broken rice, rotten potatoes [that are] unfit for human consumption for ethanol production
- the policy allows use of surplus food grains for production of ethanol for blending with petrol with the approval of National Biofuel Coordination Committee.
- The policy also provides for a viability gap funding scheme of ₹5,000 crore in six years for second generation (more advanced) ethanol bio-refineries in addition to tax incentives and a higher purchase price as compared to first generation biofuels.
- cassava, damaged food grains like wheat, broken rice, rotten potatoes [that are] unfit for human consumption for ethanol production
- the policy allows use of surplus food grains for production of ethanol for blending with petrol with the approval of National Biofuel Coordination Committee.
- The policy also provides for a viability gap funding scheme of ₹5,000 crore in six years for second generation (more advanced) ethanol bio-refineries in addition to tax incentives and a higher purchase price as compared to first generation biofuels.

**Significance**

- Use of E10 [petrol with 9-10% ethanol blended in it] reduces carbon dioxide emissions by about 20,000 tonnes.
- The ethanol supply year 2017-18 is likely to see a supply of around 150 crore litres of ethanol which will result in savings of over ₹4,000 crore of forex.
- By reducing crop burning and conversion of agricultural residues/wastes to biofuels there will be further reduction in greenhouse gas emissions.

**28. Infosys sets up blockchain-based trade finance network****Context**

- India's Infosys Ltd has formed a blockchain-based trade finance network with seven private-sector banks

**Details**

- Blockchain technology allows all stages of transactions to be securely shared between network members, as opposed to each bank working independently which is more expensive and increases the chance of error.
- This will increase security and efficiency in the banking sector while also broadening its product offering.

- Infosys' network will make transactions transparent for the buyers, the sellers, the buyer's bank, the seller's bank and any regulator who is on this network

## 29. India mulls tariff hike on U.S. products to hit back on steel, aluminium duties

- In a retaliatory move, India has told the WTO that it proposes to raise duties by up to 100% on 20 products such as almonds, apple and specific motorcycles imported from the U.S. from next month if Washington does not roll back high tariffs on certain steel and aluminium items. Additional duty proposed to be hiked on these items ranges from 5% to 100%.
- India hereby notifies the Council for Trade in Goods of its decision to suspend concessions or other obligations that are substantially equivalent to the amount of trade affected by the measures imposed by the United States. It said that the proposed suspension of concessions would be in the form of "an increase in tariffs on selected products originating in the U.S."
- It also said that India reserves its right to further suspend substantially equivalent concessions and other obligations based on the measures of the U.S.

### Plea to U.S.

- India had earlier urged the U.S. to exempt it from the decision to raise import duties on certain steel and aluminium products.
- The country had proposed this move under the WTO's Agreement on Safeguards. On March 9, U.S. President Donald Trump imposed heavy tariffs on imported steel and aluminium items, a move that had sparked fears of a global trade war.
- Trump signed two proclamations that levied a 25% tariff on steel and a 10% tariff on aluminium imported from all countries except Canada and Mexico.

## 30. SEBI proposes stringent norms for debt disclosure

### Context

- SEBI has proposed changes that would make it compulsory for a company to disclose within 24 hours, any default or an expected default or delay in the payment of interest or dividend on debt instruments like Non-Convertible Debt Securities (NCDs) or Non-Convertible Redeemable Preference Shares (NCRPS).

### Details

- Further, if there is any action or proposal that could affect the redemption, conversion, cancellation, retirement in whole or in part of the debt securities then it will also have to be disclosed "as soon as reasonably possible but not later than twenty-four hours from occurrence of event or information"
- With the proposed changes, the regulator aims to move from principal-based to regulation-based disclosure requirements

- The regulator wants listed companies to disclose five days prior to every quarter details related to interest or dividend payable on all NCDs or NCRPS during the quarter. Thereafter, within two working days from the end of the quarter a certificate needs to be provided confirming all such payments.
- Companies will also be required to report any material deviation in the use of proceeds on a quarterly basis instead of the current requirement of providing such information every six months.
- The capital market regulator has also proposed empowering the investors in instances wherein the company plans to change the structure of an NCD or NCRPS.

### Consent

- It is proposed that the listed entity shall not make any material modification without obtaining consent in writing of the holders of not less than three-fourths, by number, of holders of that class of securities for which modification in structure is proposed,
- Further, such consent has to be an affirmative one and a mere non response shall not be treated as deemed consent
- Thereafter, the debenture trustee will have to vet the consent and issue a certificate to the company that will have to disclose the same to the stock exchanges.
- According to the norms currently in force, a company can modify the structure by taking an approval from the board of directors and debenture trustees in the case of NCDs.

### Significance

- It would address certain discrepancies in the manner disclosures are currently done

## 31. only little over 40 per cent loans are going to the small farmers: RBI

### Context

- The small and marginal farmers are missing out on the bulk of agricultural credit, as per information provided by the Reserve Bank of India, which showed they are receiving only 30-40% of loans meant for the sector.

### Stats

- The data also shows a great disparity of performance between states, with some states such as Meghalaya giving 93.6% of its agricultural credit to small and marginal farmers,
- other states like Sikkim have this proportion as low as 1.67%.
- While some of this could be explained by the distribution of farmer types in these states, a large part of the discrepancy could be due to a targeting problem.

**Why is it so?**

- Some farmers, the larger ones and the ones closer to urban areas, are over-represented in terms of access to credit.
- Banks choose to lend to those areas where the cost of lending is lower, such as those close to urban areas, or to those farmers who are more credit-worthy. That is, the medium and large farmers.
- The RBI data backs up this assertion, showing that only 34.5% of agricultural credit outstanding as of 2017 has gone to rural farmers

**Framework given by RBI to banks**

- The RBI's rules are that 18% of a bank's Adjusted Net Bank Credit must go to the agricultural sector and within this, 8% must go to small and marginal farmers.

**PSB vs Private Sector Banks**

- The data also shows that the onus of providing agricultural credit is falling on the public sector banks, with 12 out of 23 of the private sector banks for which data is available having failed to meet the 18% lending target for the agricultural sector in 2017.

**Way forward**

- limit can be reduced, but the rules can be made stricter about to whom the loans are given to.

# INTERNATIONAL RELATIONS

## 1. East Asian reset

### Context

- After close diplomatic reset with India, China is exchanging pleasantries for enhancing its relationship with Japan

### Engagements

- Chinese Premier Li Keqiang was in Japan on a three-day state visit, his first trip to Tokyo since taking office five years ago.
  - \* It was also the first top-level bilateral visit after relations between the two countries plummeted in 2012 over a chain of disputed islands claimed by both sides.
- Prime Minister Shinzo Abe became the first Japanese leader in 15 years to attend the Chinese Embassy's annual National Day celebrations in Tokyo
- Mr. Abe and Mr. Xi have met on the sidelines of an Asia-Pacific Economic Cooperation summit in Vietnam.

### Why the tension?

- Beijing believes Japan is yet to properly compensate for its brutal invasion of China in the run-up to and during the Second World War.
- In the post-War alignment Japan has remained firmly tethered to the U.S., often putting it in an adversarial position vis-à-vis China.
- the most challenging point of contention is the territorial dispute over the Diaoyu/Senkaku islands as they are known in China and Japan, respectively, in the East China Sea.
- China has overtaken Japan as the world's second largest economy and has also eclipsed it as a global geostrategic player. And the two countries continue to vie for influence in the region, with Southeast Asia in particular emerging as a theatre for this competition.

### Japan's Role in China's rise

- Japan was an important player in China's economic rise, which saw the country's transformation from an agrarian backwater to a global manufacturing powerhouse.
- According to the Japan External Trade Organisation, China-Japan trade stands at about \$350 billion (by comparison, India-China trade is \$84.44 billion).

### Why sudden rapprochement of Japan with China?

There is a triumvirate of motivating factors on the Japanese side: an unpredictable U.S., North Korea and business interests.

- U.S. President Donald Trump's America First policy and the tariffs he has slapped on some \$60 billion worth of Chinese products have also impacted Japan, which despite its status as a U.S. ally, failed to get any exemption from new duties on steel and aluminium.
- Mr. Abe is also hoping that China can use its influence with North Korea to highlight Japan's concerns, at a time when Tokyo feels somewhat shut out of the flurry of diplomacy on the Korean peninsula.
- And finally the many Japanese businesses invested in China, that have on occasion suffered punitive measures from Beijing

Japan-backed Asian Development Bank is exploring co-financing projects with the Beijing-led Asian Infrastructure Investment bank, even though Japan has formally steered clear of it.

### How will it help China?

- Conversely for China, the idea of Japan's leader asking for support on North Korea plays well domestically as an example of Beijing's international clout.
- Moreover, given the simmering possibility of a trade war with the U.S., better ties with economic heavyweight Japan are also in China's interests
- China is keen on getting Japan to play ball with its signature Belt and Road Initiative (BRI)
  - \* Although initially reluctant to participate in the BRI, Tokyo has signalled that it is open to the initiative as long as proposed infrastructure projects meet the criteria of being "open, transparent, fair and economically feasible."

### Conclusion

- China-Japan alignment is a tactical and provisional affair, rather than long-term and strategic, born out of the current moment in a fluid geopolitical landscape.
- It is more akin to a pause rather than a resolution of conflict.
- And as with the India-China reset, although it is temporarily beneficial to both sides, the foundation of the bilateral relationship remains troubled and treacherous

## 2. Gexe Lharampa-Chinese county bans India-educated monks

### Context

- A Chinese county has banned Tibetan Monks "wrongly educated" in India from teaching Buddhism, fearing that they may spread "separatist" content

### Gexe Lharampa

- It is the highest academic degree in Tibetan Buddhism studies



- Gexe means knowledgeable and Lharampa is the highest among the four ranks in the Gexe system

#### Details

- Monks wrongly educated in India are banned from teaching Buddhism to residents of Litang county in Southwest China's Sichuan Province
- Those who behaved improperly at the patriotic classes or showed "any signs of separatist intent" are strictly monitored and banned from teaching Buddhism to the public
- The country has its own criteria to award Gexe Lharampa, and candidates have to pass Chinese Buddhist tests and a sutra debate
- China accuses Tibetan spiritual leader the Dalai Lama and his associates of being separatists.

### 3. Gilgit-Baltistan

- Gilgit-Baltistan is situated in the trans-Himalayan region on the northwestern corner of the Kashmir Valley, a part of which has been illegally occupied by Pakistan since it invaded the region after the partition of India.
- Under the Maharaja of Jammu and Kashmir, the princely state consisted of five regions.
  - \* The five regions were: Jammu, Kashmir, Ladakh, Gilgit Wazarat, and Gilgit Agency.

#### How did Pakistan occupy this place?

- Pakistan captured a part of Kashmir by means of invasion and the entire Gilgit region - generally called Gilgit-Baltistan - by the treachery of British military officer of the Maharaja.
- After gaining control of the region, Pakistan renamed the Gilgit Wazarat and Gilgit Agency as The Northern Areas of Pakistan. It is directly administered by the federal government of Pakistan.

#### Laws

- Pakistan has bifurcated occupied Kashmir into two administrative parts - Gilgit-Baltistan and Pakistan-occupied Kashmir (PoK).
- It was treated as a separate geographical entity by Pakistan until now
  - \* Gilgit-Baltistan has an elected Assembly with limited powers to frame laws. The area is governed by a council headed by the Prime Minister of Pakistan.
- Gilgit-Baltistan has been treated as a separate geographical entity by successive Pakistani governments
  - \* Gilgit-Baltistan does not find any mention in Pakistan's Constitution. So, its residents cannot vote in national elections.

#### Issue Area

- People of the Gilgit-Baltistan (PoK) demand a complete removal of Pakistani and Chinese actors who forcefully occupy the land and exploit the region's mineral and water resources
- The people in this region face suppression for demanding basic rights
- the Pakistani military and intelligence agencies have seized thousands of acres of private land in Gilgit-Baltistan for military use
  - \* These practices are a direct violation of the UN Security Council resolutions and have resulted in the displacement of locals
- Pakistan, on the other hand, has been trying to change the demography of Gilgit-Baltistan for decades. In 1970s, former Pakistan Prime Minister Zulfikar Ali Bhutto had abrogated the State Subject Rule to allow Sunni Muslims to settle down in the Shia-dominated Gilgit-Baltistan. This has worked in Pakistan's favour.

#### Details

#### Context

- The Gilgit-Baltistan government has promulgated the Gilgit-Baltistan Order-2018, which replaced the Gilgit-Baltistan Empowerment and Self-Governance Order of 2009

#### What will the new order provide?

- the people of Gilgit-Baltistan will have the same rights as enjoyed by the citizens of the other four provinces after the devolution of powers under a reform package, a move seen as Islamabad's efforts towards incorporating the disputed region as its fifth province.
- all powers exercised by the four provincial assemblies under Schedule IV of the Constitution of Pakistan had been entrusted to the Gilgit-Baltistan Assembly.
- the last empowerment order guaranteed only 17 basic rights and that too were limited only to Gilgit-Baltistan, but now in light of the Gilgit-Baltistan Order-2018, a citizen of the area could demand his or her rights at any corner of Pakistan and had access to all apex courts of the country.
  - \* The chief judge of the Gilgit-Baltistan Supreme Appellate Court would be a retired judge of the Supreme Court of Pakistan and the name of the Gilgit-Baltistan chief court had been changed to the high court and the number of judges had been raised to two on the demand of the lawyers' community

#### CPEC and its influence

- It is believed that China's concerns about the unsettled status of Gilgit-Baltistan prompted Pakistan to change its status

**India's Stand**

- India maintains that any possible attempt by Pakistan to declare the Gilgit-Baltistan region, bordering the disputed Pakistan-occupied Kashmir, as the fifth province is "entirely unacceptable".
- It was clearly conveyed that the entire state of Jammu and Kashmir which also includes the so-called 'Gilgit-Baltistan' areas is an integral part of India by virtue of its accession in 1947. Any action to alter the status of any part of the territory under forcible and illegal occupation of Pakistan has no legal basis whatsoever, and is completely unacceptable

**4. India-Japan Energy Dialogue**

- Both countries agree to work together for energy security, energy access and climate change issues
- They agreed to initiate the discussion on Electric Vehicles (EVs) and commit to work together in promoting well-functioning energy markets
- Both India and Japan with a view to implement Nationally Determined Contributions (NDCs) under the aegis of the United Nations Framework Convention on Climate Change (UNFCCC) recognized the importance of development and deployment of next generation technologies including hydrogen to realize de-carbonization.
- Both India and Japan reiterated the continued importance of coal-based electricity generation in the energy mix in both the countries and also agreed to promote the cooperation on environmental measures for coal-fired power plants.
- Both India and Japan further confirmed their commitment to work together in promoting well-functioning energy markets and affirmed to promote transparent and diversified Liquefied Natural Gas (LNG) market through the relaxation of destination clause.

**5. 'Nakba' day**

- It is generally commemorated on 15 May for Israeli Independence Day
- For the Palestinians it is an annual day of commemoration of the displacement that preceded and followed the Israeli Declaration of Independence in 1948
- The displacement, dispossession and dispersal of the Palestinian people is known to them as an-Nakba, meaning "catastrophe" or "disaster"

**6. Pakal Dul Dam and Hydro Project**

- It is a Project on the Marusadar River, a tributary of the Chenab River, in Kishtwar district of the Indian state of Jammu and Kashmir.
- It is being constructed by the Chenab Valley Power Projects (CVPP), which will be the first-ever power project of the state with a storage capacity in 0.5 million acres of area

- A total of 1,000 MW will be generated by the Pakal Dul project, 624 MW by Kiru hydroelectric project while 540 MW by Kwar hydroelectric project

**Concerns from Pakistan**

- As per the Indus Water treaty, the 'eastern rivers' of Beas, Sutlej and Ravi are under India's control, while Pakistan controls the 'western rivers' of Indus, Chenab and Jhelum. The treaty gives each country the right to use only 20% of the water from the rivers under the two countries' respective control.
- Pakistan has asked India to share details of the designs of the two dams -- the Pakal Dul dam on the Marusadar river in Kishtwar; and the Lower Kalnai dam on another tributary of the river in Doda -- to verify that the 1960 water treaty was not being violated.
- The issue was raised in the Permanent Indus Commission (PIC) meeting
- The treaty mandates the PIC to meet at least once a year alternately in India and Pakistan.

**7. Putin sworn in for fourth term**

- He got more than 76 percent of the vote and now becomes the longest serving Russian leader since Stalin, being at the helm of Russia as either president or prime minister since 1999.
- With the coronation of Xi Jinping as China's de facto president for life and Putin's election in Russia, a new form of authoritarian political order is shaping up, challenging the liberal order like never before.

**Elections**

- For the first time, the authorities changed the system of voting for people who cannot vote in places of their permanent residence --
  - \* The earlier practice of using absentee ballots (special documents that citizens had to receive in advance)
  - \* Changed to simply filing in a request either through a unified document processing center or even via the internet.
- Officials expected the new system to prevent the use of rigging schemes -- known as 'carousels' -- for which they have been previously criticized by the opposition.

**Implications for India**

- First-ever six-nation Speaker's Conference in Islamabad held in December supported the Pakistani line on Kashmir.
  - \* Declaration signed by Afghanistan, China, Iran, Pakistan, Russia, and Turkey
  - \* This was aimed at enabling the participating countries to engage in meaningful discussions to explore common means of combating terrorism, maintaining peace and enhancing connectivity of people and states.

- \* The conference will also involve interaction among peace activists, representatives of business and trade community, professionals, academia and experts from the six countries.
- \* This underscored that “for ensuring global and regional peace and stability, the issue of Jammu and Kashmir needs peaceful resolution by Pakistan and India in accordance with UN Security Council resolutions.”
- \* Pakistan’s Kashmir fixation meant that it forced other interlocutors to bring the Kashmir issue to the declaration.
- During his visit to New Delhi in December, Russian Foreign Minister Sergey Lavrov publicly called on India to join China’s Belt and Road initiative and hoped that New Delhi will find a way out to benefit from the mega connectivity project without sacrificing its position on the issues flagged by it.
- Lavrov also made his displeasure clear over New Delhi’s warming up to the idea of a quadrilateral engagement involving the United States, India, Japan, and Australia in the Indo-Pacific.

#### West vs Russia

- The West views Russia as one of the most disruptive forces in global politics, even more so than China in many ways.
- For Russia, the U.S.-led West presents its biggest challenge and its foreign policy priorities increasingly revolve around pushing back against the West at every level
- Britain and Russia are entangled these days in a dispute pertaining to an attack on a former Russian spy and his daughter on U.K. soil using a deadly nerve agent.
- \* And the West has united behind the U.K. in responding to Russia.

#### Chinese act of dominance

- As a result, while Russia may find cooperation with China as a perfectly legitimate response to its problems with the West, India does not have that luxury.
- New Delhi has to therefore find like-minded countries to build alternative platforms and narratives so as to preclude Chinese hegemony in the wider Indo-Pacific.

#### Way forward

- For a relationship that largely relies on defense and where the economic underpinnings are lagging, the need of the hour should be to have candid conversations about the current state of play in the relationship.
- Just relying on sentimentalism of the past won’t work anymore as new challenges confront India and Russia as the global geostrategic environment undergoes a profound reordering.

### **8. Sabang Port Access**

- Sabang, also known as Weh island, is located 710 km southeast of the Andaman Islands and less than 500 km from the entrance of the Malacca Strait, through which almost 40% of India’s trade passes.
- Indonesia has agreed to give India economic and military access to the strategic island of Sabang
- It would fall in line with the Act East policy of the government

#### What was the necessity?

- India and Indonesia share multiple common concerns, one of which is China’s growing maritime footprint in the eastern Indian Ocean.
- Sabang, with its naval base, naval air station, and maintenance and repair facilities, has the potential to serve as the focal point of a budding strategic partnership between the two countries.
- Both countries value the key sea lines of communication (SLOCs) that connect the Indian Ocean to the Pacific, and therefore the foundation of any strategic partnership will rest on how they both seek to manage the region’s strategically important chokepoints.
- The strategically important Straits of Malacca, Lombok and Sunda fall under the Indian Navy’s primary area of interest, and access to Indonesian naval bases such as Sabang will significantly enhance the Indian Navy’s ability to maintain a forward presence and monitor movements in the Straits of Malacca.
- The territorial dispute between China and Indonesia in the Natuna Sea is an issue that is close to Mr. Jokowi, and a strategic alignment with India will help Jakarta balance some of the security concerns emanating from Beijing’s aggressive stance in the South China Sea.
- Mutual logistical support and reciprocal berthing rights will facilitate a more intimate maritime security partnership. This will allow India to gain access to naval bases in Lampung on the Sunda Strait, and Denpasar and Banyuwangi on the Lombok Strait, augmenting the Indian Navy’s operational breadth in the eastern Indian Ocean.

#### **Natuna Islands**

- Indonesia’s exclusive economic zone (EEZ) off the coast of Natuna slightly overlaps the area within China’s South China Sea claim indicated by the so-called “Nine-Dash Line”.
- China’s so-called nine-dash line encircles almost the entire sea – often encroaching upon the 200 nautical-mile exclusive economic zones (EEZs) of neighboring countries – and it was terribly vague in its southern part

**Why is this region important?**

- Natuna has large reserves of natural gas
- Abundant hydrocarbon and fishing resources.

**Actions taken by Indonesia**

- Indonesia has renamed the northern reaches of its exclusive economic zone in the South China Sea as the North Natuna Sea, the latest act of resistance to China's territorial ambitions in the maritime region.
- The renaming was an important decision and follows examples set in
  - \* Vietnam where the South China Sea is known as the East Sea,
  - \* Philippines where the disputed waterway has been renamed the West Philippine Sea.
- Detaining Chinese fishermen and expanding its military presence in the area

**Areas of engagement**

- Their partnership can involve information sharing on white shipping and enabling India to partner Indonesia in tracking commercial cargo ships at choke points such as Malacca which are getting increasingly congested.
  - \* it establishes an information network protocol that allows the navies of both countries to exchange information about ships in their oceanic territories.
  - \* Ships would be classified into
  - \* The Navy's Information Management and Analysis Centre (IMAC) at Gurgaon would be the nodal centre for WSA.
- In the past, cooperation between India and Indonesia has been limited to anti-piracy patrols, search and rescue exercises and joint hydrographic exploration. It is important for the two countries to move to a more concerted and intensive engagement. India should leverage this opportunity and seek its inclusion in the Malacca Strait Patrols programme.
- India's inclusion in the programme would augment India's existing maritime domain awareness in the region, while the eyes-in-the-sky component will allow India to jointly patrol the region with its maritime surveillance aircraft.
- Access to the Jayapura naval base in West Papua will expand the Indian Navy's operating capacity in the Western Pacific and complement Indian access to French naval bases in French Polynesia and New Caledonia in the Southern Pacific.

**Economic upgradation**

- The development of the port and economic zone in Sabang can serve as blueprint for a connectivity partnership between the two nations, and more importantly, provide an alternative to China's Belt and Road Initiative.

- The proposed cruise tourism circuit between the Andaman and Nicobar Islands and Sabang would further enhance such economic linkages.
- Additionally, a partnership that includes collaboration in defence industries and maritime training and education can ensure a dynamic maritime collaboration.

**Way forward**

- The time has come for India to realise the potential of a strategic alignment with the archipelagic state that is geo-politically positioned at the centre of the Indo-Pacific, and an upgrade in maritime relations is the logical way forward.

**9. Shanghai Cooperation Organization (SCO)**

- It is a Eurasian political, economic, and military Organisation which was founded in Shanghai
  - \* The SCO was founded by leaders of China, Kazakhstan, Kyrgyzstan, Russia and Tajikistan in 2001.
  - \* Uzbekistan joined the group later.
  - \* India and Pakistan signed the memoranda for becoming a permanent member of the SCO in 2016.
  - \* India became a full member of the Shanghai Cooperation Organization (SCO) at the Astana Summit. The SCO's objectives are centered around cooperation between member nations on security-related concerns, military cooperation, intelligence sharing and counter-terrorism.
- The presence of China and India, the world's most populous countries, would make the SCO the Organisation with the largest population coverage.
- Its headquarters in Beijing

**Importance****Trade**

- India's membership in the SCO provides it with select opportunities in the geo-economics and the geostrategic sphere in the Central Asian Region (CAR).
  - \* The CAR supplies around 10 percent of oil and energy to the world. With India being one of the most energy-hungry nations, involvement in the SCO provides it with an opportunity to satisfy its energy requirements through regional diplomacy
- India's pending energy projects like the TAPI (Turkmenistan-Afghanistan-Pakistan-India) pipeline, IPI (Iran-Pakistan-India) pipeline, and CASA (Central Asia-South Asia)-1000 electricity transmission projects — all of which are blocked, due in part to Pakistan's recalcitrant approach — can get a much-needed push through the SCO.



- The SCO can provide a platform for India to improve its bilateral relations with the Central Asian countries. The grouping is planning to initiate negotiations on the SCO FTA by 2020; it would be unwise for India to miss out on this opportunity.

#### Security

- In the sphere of security, the SCO formed Regional Anti-Terrorism Structure (RATS) in 2005 at Tashkent.
  - \* RATS which works on information sharing and joint counterterrorism measures between member states.
  - \* The SCO has successfully nullified 600 would-be attacks and extradited more than 500 terrorist through the RATS mechanism. India's full membership in the SCO will enable it to play an instrumental role in RATS.
  - \* India through RATS can improve its counterterrorism experience, by working toward intelligence sharing, law enforcement, developing best practices and technologies, mutual legal assistance, extradition arrangements and capacity building amongst other measures
- Through the SCO, India can also work on anti-drug trafficking, which is a major concern for Afghanistan.
- The re-emergence of radicalism in Afghanistan, particularly the presence of the Islamic State, will have a major impact on the already tense Kashmir region of India. Thus India, being a major stake holder in Afghanistan, alongside the SCO, will have to help fill the security vacuum left after the NATO withdrawal.

#### Other advantages

- India's presence in SCO would also ensure that China does not dictate terms in Eurasia. This is also the concern of Russia which is in a state of a 'soft competition' with China in Central Asia. This is one of the reasons why Russia always backed India and Iran's admission into SCO whereas China brought in Pakistan to strengthen its own hand
- Central Asian countries provides India with a market for its IT, telecommunications, banking, finance and pharmaceutical industries
- Further, it will help India engage the Central Asian Republics (CARs) on a regular basis every year, something which has proved rather difficult in a bilateral format

#### **Challenges**

- Alongside India, Pakistan was accepted as a full member at the Astana Summit and participated in the 16th Meeting of Council of SCO Heads of Governments. Plus, China is the principal driver of the SCO. The presence of Pakistan and the dominance of China in the SCO limit India to a secondary role in the organization.

- Also, the presence of Pakistan and China in the SCO limits India's ability to push on the issue of terrorism, as Pakistan itself has indulged in a major proxy war with India. China has repeatedly shielded terrorists from Pakistan in the United Nations Security Council with its veto power.
- It will also be interesting to view India's response if Pakistan tries to regionalize the Kashmir issue through the SCO. India will also have to tread carefully should China raise the Tibet issue at the SCO, as India has given shelter to the Dalai Lama for decades.
- Except India, all the other members of SCO have endorsed China's BRI initiative. In this regard, if in future the economic policies of SCO come to be associated with the BRI network of roads and transportation, then India would face a dilemma and even a policy setback.
- Finally, the SCO has traditionally adopted a clear anti-Western posture. It is important for India to identify itself distinctly and avoid such rhetoric, which the SCO promotes.

#### **Way forward**

- India-Russia diplomatic relations will have a major role in promoting India's interests in the SCO, and India's cordial relations with Central Asian countries will determine the fate of India's interests.
- India has to concede the fact that the CAR is China's sphere of influence and India's engagement with the region should proceed with utmost caution. Thus, India's full membership and subsequent involvement in the SCO comes with limited opportunities and many challenges.
- The Modi government will have to walk a thin diplomatic line and adopt a careful approach while engaging in the SCO. It has to take care of its interests and remain neutral on issues which are not directly related to it.

#### **10. Windrush Generation**

- Those arriving in the UK between 1948 and 1971 from Caribbean countries have been labelled the Windrush generation.
- This is a reference to the ship MV Empire Windrush, which arrived at Tilbury Docks, Essex, on 22 June 1948, bringing workers from Jamaica, Trinidad and Tobago and other islands, as a response to post-war labour shortages in the UK.
- Along with others from the Commonwealth, they and their families were encouraged to Britain to help meet acute labour shortages, whether in the National Health Service (NHS) or beyond.

#### 1971 Immigration Act

- The influx ended with the 1971 Immigration Act, when Commonwealth citizens already living in the UK were given indefinite leave to remain.



- After this, a British passport-holder born overseas could only settle in the UK if they firstly had a work permit and, secondly, could prove that a parent or grandparent had been born in the UK.

#### Issues Associated

- Under a toughening immigration regime, and bureaucratic mess-ups that resulted in documentation being lost, many of these men and women have begun to be penalized for failing to have the right documentation and are being treated as illegal immigrants.
- Some have been unable to work, others have been denied health care, while still others have been unable to return to Britain following trips overseas.
- While most of the cases that have come to light apply to Caribbean citizens, there have been warnings that citizens from across the Commonwealth were likely to be impacted.

#### India's Plight

- Indians are among those caught up in the Windrush controversy
- Those from India, Pakistan, West Africa and other parts of the Commonwealth are also facing the same plight as many from the Caribbean
- According to the Oxford Migration Observatory, an estimated 57,000 non-U.K. nationals arrived in Britain before 1971, including 13,000 from India, 15,000 from Jamaica and others. Many may have had documentation to demonstrate their status and therefore not face the difficulties of the Windrush generation.
- Last week it emerged that at least a hundred, and potentially more, Indian doctors who had been recruited by NHS trusts up and down the country to fill sorely needed positions, mostly in emergency medicine, had been unable to take up their positions because of visa issues.
- This is being used to deny IT professionals, doctors and others long resident in the U.K. the indefinite leave to remain because of minor errors in their tax returns. Hundreds are believed to be impacted.

#### Foreign Students Deportation

- For many years the British government has been attempting to deport foreign students (and others) based on allegations that they had committed fraud to obtain the English-language qualifications to stay in the U.K.
  - \* After a 2014 BBC investigation found evidence of fraud at one testing centre, thousands who had gained their qualification via that route at different test centres were accused of fraud
- The chair of the National Indian Students and Alumni Union U.K., which has been campaigning on behalf of students who have faced accusations of fraud believes a "significant population" from India has been impacted.

- \* The burden of proof — and blame — was swiftly placed on the shoulders of the students rather than the Home Office-approved system that had allowed the fraud to happen.

#### Govt's View

- The government while apologising for the treatment of the Windrush generation and promising acting including compensation has attempted to treat it as an aberration that had no link with its wider immigration policies.

### **11. India's role in ending the Korean war**

- British historian, Robert Barnes in The Journal of Korean Studies contends that India played a "much-overlooked but significant role" in bringing the Korean conflict to an end.
- Initially, India's Permanent Representative to the United Nations, B.N. Rau, was very active. India's Ambassador in China, K.M. Panikkar, was the channel through which Chinese Premier Zhou Enlai communicated his views on the Korean conflict to the Americans as well as to the UN, since the People's Republic of China was not a member of that body then.
- V.K. Krishna Menon negotiated and brought the Soviets, Chinese and USA on negotiating table and introduced the Armistice Agreement

#### Follow-up action

- One of the follow-up actions to the Armistice Agreement was the establishment of a Neutral Nations Repatriation Commission (NNRC) which was to decide on the fate of over 20,000 prisoners of war from both sides.
- India was chosen as the Chair of the NNRC, with Poland and Czechoslovakia representing the Communist bloc and Sweden and Switzerland representing the Western world.
- There was to be a UN Command led by an Englishman and a Custodian Force sent by India.
- Nehru selected Lt. General K.S. Thimayya as the Chairman of the NNRC and Major General S.S.P. Thorat as the Commander of the Custodian Force India, as it was called. P.N. Haksar, then Krishna Menon's aide in the High Commission in London, was appointed as one of the two political advisers in Thimayya's team.

#### Conflict in decisions

- Thimayya became a hero at the end of the NNRC's tenure in February 1954. He was feted both at home and abroad for having executed a most thankless task courageously although he and Haksar had developed serious differences.
- Haksar felt that Thimayya was far too concerned with American opinion while Thimayya thought Haksar was too solicitous of the communists.

**Efforts in the direction**

- The Commission's reports were drafted entirely by Haksar and submitted to the UN General Assembly
- At the end of its work, the NNRC was left with over 80 prisoners of war who resisted being handed over and expressed a desire to go to neutral countries.
- On humanitarian considerations, Nehru decided to bring them to India
- Most left immediately for other countries in Central and South America. But a few stayed back and got loans to start poultry businesses.

**12. Iran Nuclear Deal**

- The agreement, signed in 2015 by Iran with the five permanent members of the UN Security Council, Germany and the EU, curtailed its nuclear programme in return for withdrawing economic sanctions.
- It was reached after 18 months of painful negotiations.
- Under the deal, most of Iran's enriched uranium was shipped out of the country, a heavy water facility was rendered inoperable and the operational nuclear facilities were brought under international inspection.
- Three years later, unfortunately, it's the U.S., which had initiated talks with Iran under the previous administration, that has acted in bad faith.

**Why was this decision taken?**

This was done to comfort Washington's closest allies in West Asia — Israel and Saudi Arabia

- This will bring Iran in the global economic mainstream
- They fear that if Iran's economic profile rises, it will embolden it to increase its regional presence, posing a strategic threat to the interests of the U.S.-Saudi-Israel axis

**Concern**

- Now, by pulling out of the deal he has manufactured a crisis in an already tumultuous region.

**What about its future?**

- The U.S. action doesn't necessarily trigger an immediate collapse of the agreement. For now, Europe, Russia and China remain committed to it.
- Iran has responded cautiously, with the Foreign Minister saying he will engage diplomatically with the remaining signatories.
- But the challenges will emerge, not only for Europe but also for other nations with strong trade ties with Iran, including India, once American sanctions are in place. The U.S. stands isolated in its decision.

But the question is whether Europe and other powers will stick together to respect the mandate of an international agreement, or buckle under American pressure. If they do cave in, West Asia will be a lot more dangerous.

**Effect on India after USA withdrawal from Iran Nuclear Deal**

- Oil Prices: The impact on world oil prices will be the immediately visible impact of the U.S. decision. Iran is presently India's third biggest supplier (after Iraq and Saudi Arabia), and any increase in prices will hit both inflation levels as well as the Indian rupee, which breached ₹67 to the U.S. dollar this week
  - \* In the past week alone, crude prices have crossed \$70/bbl (barrel) level, touching a four-year high
- Chabahar: India's moves over the last few years to develop berths at the Shahid Beheshti port in Chabahar was a key part of its plans to circumvent Pakistan's blocks on trade with Afghanistan, and the new U.S. sanctions could slow or even bring those plans to a halt depending on how strictly they are implemented.
  - \* India has already committed about \$85 million to Chabahar development with plans for a total of \$500 million on the port, while a railway line to Afghanistan could cost as much as \$1.6 billion.
  - \* a much tougher line on Iran and any further restrictions they place will make India's Chabahar plans more expensive and even unviable.
- INSTC: Beyond Chabahar, India has been a founder of the International North South Transport Corridor (INSTC) since it was ratified in 2002.
  - \* It starts from Iran and aims to cut right across Central Asia to Russia over a 7,200-km multi-mode network, cutting down transportation and time taken by trade by about 30%.
  - \* Plans for INSTC sped up after the JCPOA was signed in 2015 and sanctions on Iran were lifted.
  - \* New U.S. sanctions will affect these plans immediately, especially if any of the countries along the route or banking and insurance companies dealing with the INSTC plan also decide to adhere to U.S. restrictions on trade with Iran.
- Shanghai Cooperation Organisation: India joined the SCO along with Pakistan last year, and both will be formally admitted in June 2018
  - \* This year, Chinese officials say they will consider inducting Iran into the 8-member Eurasian security organisation.
  - \* If the proposal is accepted by the SCO, which is led by China and Russia, India will become a member of a bloc that will be seen as anti-American and will run counter to some of the government's other initiatives, for eg. the Indo-Pacific quadrilateral with the U.S., Australia and Japan.
  - \* The move may also rile other adversaries of Iran, like Saudi Arabia, UAE and Israel, with whom the Modi government has strengthened ties in an effort to balance its West Asia policy.

- Rules-based order: India has long been a proponent of a “rules-based order” that depends on multilateral consensus and an adherence to commitments made by countries on the international stage.
  - \* By walking out of the JCPOA that was signed by the Obama administration, the U.S. government has overturned the precept that such international agreements are made by “States” not just with prevailing governments or regimes.
  - \* This could also impact all agreements India is negotiating both bilaterally and multilaterally with the U.S., and the government will have to choose its future course factoring in the new U.S. behavior, especially after Mr. Trump withdrew from the U.N. Climate Change treaty (Paris Accord),
  - \* The Trans-Pacific Partnership with East Asian trading partners.
  - \* In the case of the Paris Accord for example, India chose to stick to its commitments on reducing its carbon footprint, despite the fact that the Trump administration had dispensed with the funding commitments that were made by the previous Obama administration in order to convince India to sign on to the climate change agreements ahead of time.
  - \* New Delhi will have to consider a new understanding of its ties with Washington in this context, and some of this understanding may be built during the first “2+2” dialogue between Foreign and Defence Ministers of both countries to be scheduled in the next few weeks in Washington.

### Rules Based Order

- It is an order to coordinate action against the kinds of common enemies (pirates, terrorists, and natural disasters)
- This means a shared commitment by all countries to conduct their activities in accordance with agreed rules that evolve over time, such as international law, regional security arrangements, trade agreements, immigration protocols, and cultural arrangements.

The rules-based order offers both positive and negative rules.

- On the positive side, it establishes the form and content of response (common procedures for dealing with pirates, emergency response measures for natural disasters, and so forth).
- On the negative side, it cautions states against taking advantage of cooperative struggles for individual gain.
  - \* For example, the United States and others have worked very hard to sever the tie between terrorist groups and their state sponsors.
  - \* Similarly, the international community would look very grimly on an effort by Japan to take advantage of an earthquake in China.

### China's Role and its Importance to Iran

#### China needs Iran

Given the overt hostility of the Trump administration towards Iran, it is imperative for Tehran to maintain cordial relationship with a rising power like China.

- China is one of the few countries which never severed its ties with Iran. In fact, it had played a crucial role in bringing Iran to the diplomatic table to negotiate the P5+1 nuclear deal.
- China was also one of the countries that maintained steady trade relations with Iran even during the sanctions era.
- Post-sanctions, Chinese President, Xi Jinping was the first head of state to visit Iran, in January 2016. On the sidelines of his visit, both countries decided to increase their bilateral trade

#### Economic Importance

- A large chunk of China-Iran trade is petroleum-based products. China is the largest importer of Iranian oil.
- China's iron-ore buyers see in Iran an alternative to Australia and Brazil.
- Chinese investments in Iran are part and parcel of its ambitious \$1 trillion Belt and Road Initiative (BRI).
- Iran's premium geographical location (as a bridge between Persian Gulf and Central Asia) along with a relatively stable political architecture makes it a central player for China's BRI. This will give China de-facto control over two of the three major routes to world markets.

#### Defence Deal

- In addition to their economic partnership, China and Iran share substantial defence cooperation with each other.
- After the 1979 revolution, Tehran has been dependent on Beijing for meeting its defence requirements. China has supplied Iran with surface-to-air missiles and has also trained Iranian nuclear scientists.
- The November 2016 agreement signed between defence ministers of both countries entails regular military-to-military exercises. In 2014, both countries held joint naval drill in the Gulf.
- There have been intermittent talks between China and Iran for the sale of J-10 multirole combat aircraft to Tehran.

#### Iran Needs China

- China, being permanent member of the Security Council with veto power, could be of great strategic help for Iran when it comes to vetoing any proposal against Iran in the United Nations. A parallel, China-dominated global order suits Iran more than the U.S.-centric world order.
- Iran, with its massive infrastructural needs, sees China as its most valued partner and Beijing has been investing in Iran in crucial sectors like railways.

- Iran perceives the BRI as a project that would make it an indispensable transit hub for countries like China, India and Russia and an effective antidote to the U.S. sanctions.

#### **India's Role**

- For India, to be an influential player in the region, economics and politics should complement and not substitute each other. India will have to capitalize upon the existing synergies. It is imperative to compliment geopolitical premises with robust commercial exchanges.
- In collaboration with countries like Japan, India should offer favorable terms of trade in the region vis-à-vis China.
- To consolidate its strategic depth in the region, India should focus on initiatives like frequent joint naval exercises in the Persian Gulf.
- Iran, on the other hand, would do well by maintaining a fine balance between the elephant and the dragon. Experiences of countries like Sri Lanka should encourage prudent thinking on the part of Iranian policy-makers.

#### **Way forward**

- New Delhi will have to adopt a nuanced approach towards Chinese investment in Iran, especially now that Tehran's reliance upon Beijing is only likely to grow after Mr. Trump's exit from the nuclear pact.
- Some form of Chinese participation in the Chabahar project would be helpful for the future of the project, especially if the terms and conditions are clearly specified.
- India and China are exploring joint economic projects in Afghanistan; they can surely also extend this engagement to the Chabahar.

### **13. India, Indonesia elevate ties**

- India and Indonesia elevated their bilateral ties to Comprehensive Strategic Partnership.

#### **Details**

- The two countries signed 15 agreements, including one to boost defence cooperation, and called for freedom of navigation in the strategic Indo-Pacific region.
- The two leaders discussed areas of strategic cooperation and ways to ensure better economic ties and closer cultural relations, besides regional and global issues of mutual interest.
- Mr. Modi said India's Act East Policy and the vision of SAGAR (Security and Growth for all in the Region) matched Mr. Widodo's Maritime Fulcrum Vision.

#### **SAGAR (Security and Growth for All in the Region)**

- It is a maritime initiative which gives priority to Indian Ocean region.

- It is to ensure peace, stability and prosperity of India in Indian Ocean region.
- The goal is to seek a climate of trust and transparency; respect for international maritime rules and norms by all countries; sensitivity to each other's interests; peaceful resolution of maritime issues; and increase in maritime cooperation

### **14. India launches second IT corridor in China**

#### **Context**

- The National Association of Software and Services Companies (NASSCOM) has established one more Digital Collaborative Opportunities Plaza (SIDCOP) platform in China in an effort to provide market access to Indian IT firms in the huge Chinese market

#### **Details**

- India's top IT firms have a big presence in China, specially multi-nationals and IT Corridor at Dalian which are expected to provide a gateway for the Indian IT-small and medium-sized enterprises.

#### **Two corridors**

- Dalian corridor's focus was on IOT (Internet of Things),
- Guiyang corridor will focus on Big Data
  - \* The platform in Guiyang intends to create online and offline presence to promote a "co-create culture" between two large neighbours in the Big Data space

### **15. China wants Pakistan to relocate Hafiz Saeed to a West Asian country**

#### **Context**

- China has asked Pakistan to explore ways of relocating Jamaat-ud-Dawa (JuD) chief Hafiz Saeed to a West Asian country in response to mounting international pressure to act against him for his links with terror groups.
- Chinese President Xi Jinping suggested this course of action — allowing Saeed to live a quiet life in a West Asian country — to Pakistan Prime Minister Shahid Khaqan Abbasi on the sidelines of the Boao Forum

#### **Boao Forum for Asia (BFA)**

- China's equivalent of the World Economic Forum.
- It is a non-profit organisation that hosts high-level forums for leaders from government, business and academia in Asia and other continents to share their vision on the most pressing issues in this dynamic region and the world at large.
- The forum, sometimes known as the "Asian Davos", takes its name from the town of Boao, located in China's southern Hainan province, which has been the permanent venue for its annual conference since 2002
- The Forum is committed to promoting regional economic integration and bringing Asian countries even closer to their development goals.



- The theme of this year forum was “An Open and Innovative Asia for a World of Greater Prosperity”

#### JuD

- Saeed has been declared a global terrorist by the United Nations, the U.S. and India, carries a reward of \$5 million on his head for his alleged involvement in the 2008 Mumbai attacks.
- JuD was put on the list of banned organisations just before the Financial Action Task Force (FATF) meeting in Paris

#### Falah-e-Insaniyat Foundation

- It is a Pakistani charity organization which was established by Jamat-ud-Dawa
- It was founded in 1990 by Hafiz Muhammad Saeed and is based in Lahore, Pakistan
- They have a network of over 150 ambulances, six hospitals, 60 schools and scores of madrassas across Punjab and the Pakistan-administered Kashmir and northern areas.

#### Problems in Implementation

- JuD was not put in Schedule 1 of the Anti-Terrorism Act under which the leaders of a banned organisation must be arrested
- the Securities and Exchange Commission of Pakistan issued a circular to all companies barring them from donating money to those entities put on the UNSC sanctioned list. The government also tabled a Bill to formalise the ban on the JuD but it has not been passed so far.

### **16. Ireland overturns abortion ban in landslide vote**

#### Context

- Ireland voted by an overwhelming majority to overturn a constitutional ban on abortion in a historic referendum in this traditionally Catholic country

#### Details

- The pro-choice campaign won referendum with 66% of the 2.1 million votes cast,
- Ireland has voted by a landslide to liberalise some of the world's most restrictive abortion laws.

#### Laws currently

- Under the current law, an unborn child has the same right to life as the mother - and the maximum penalty for accessing an illegal abortion is 14 years in prison.

#### Reformation in the past

The outcome will be the latest milestone on a path of change for a country which only

- legalized divorce by a razor thin majority in 1995
- The first in the world to adopt gay marriage by popular vote three years ago.

#### Background

- Savita Halappanavar, a 31-year-old Indian dentist who had sought abortion and been denied an abortion before she died after a miscarriage in a Galway hospital
- Indian immigrant was refused a termination because doctors were loathe to carry out an abortion when the foetal heartbeat could be heard.

### **17. India supports 'united, prosperous and strong' Nepal**

#### In news

- Prime Minister Narendra Modi said India supports a “united, prosperous and strong” Nepal as he strongly backed his Nepalese counterpart KP Sharma Oli's vision to transform the land-locked Himalayan nation into a land- and water-linked country.

#### Investment in electricity

- Modi jointly with Oli laid the foundation stone of the 900-megawatt Arun III Hydroelectric Power Plant in Tumlingtar area in eastern Nepal through a remote system said it was one of the biggest projects in Nepal and generate jobs.
- Nepal is currently facing shortage of power and the production of hydropower from the project will mainly serve its domestic demands.
- He said India would invest Rs 6,000 crores in the project.

#### Culture as bridge

- Modi and Oli jointly inaugurated a direct bus service between Janakpur and Ayodhya, the birthplaces of Sita and Ram, as part of the 'Ramayana Circuit' to promote religious tourism in Nepal and India.
- Janakpur is known as the birth place of Sita, the wife of Lord Rama. Janaki temple was built in memory of Sita in 1910. The three-storey structure made entirely of stone and marble is 50-metre high and spread over 4,860 sq feet.
- The government has identified 15 destinations in India for development under the Ramayana Circuit theme — Ayodhya, Nandigram, Shringverpur and Chitrakoot (Uttar Pradesh), Sitamarhi, Buxar and Darbhanga (Bihar), Chitrakoot (Madhya Pradesh), Mahendragiri (Odisha), Jagdalpur (Chhattisgarh), Nashik and Nagpur (Maharashtra), Bhadrachalam (Telangana), Hampi (Karnataka) and Rameswaram (Tamil Nadu).

#### Other agreements in Pipeline

- Mr. Modi said India would build a railway link between Raxaul in Bihar and Kathmandu to facilitate people-to-people contact and movement of goods.
- The Prime Minister said the agricultural ministers of the two sides will soon meet and start work on a road map for agricultural development.



## 18. India to help settle Rohingya back in Rakhin

### In news

- India urged Myanmar to ensure the safe return of Rohingya citizens now staying in refugee camps in Bangladesh. External Affairs Minister Sushma Swaraj took up the issue and promised India's help
- The Minister underlined the need for safe, speedy and sustainable return of displaced persons to the Rakhine state

### Details

- The Minister informed Myanmar that India was on track to complete a project to set up prefabricated housing for the Rohingya population returning from their present camps in Bangladesh.
- India was in the process of implementing several projects to help various sections of the population in Rakhine state.
- Bangladesh has repeatedly urged India to intervene and pressure Myanmar to take back its citizens who are living in difficult circumstances on Bangladeshi territory.

### Myanmar's Commitment

- Ms. Swaraj welcomed the Myanmar government's commitment to implementing the Rakhine Advisory Commission's recommendations.

### Agreements and engagements

- India and Myanmar concluded the Agreement on Land Border Crossing, which will allow people from both sides to cross the border with passport and visa for health and educational needs and tourism.
- An agreement on training of Myanmar Foreign Service officers and another on assistance to the Joint Ceasefire Monitoring Committee were signed.
- The committee monitors the ceasefire implementation between the government of Myanmar and ethnic militant organisations that was announced in 2015.
- Reflecting cultural ties between the two sides, Ms. Swaraj sealed a memorandum of understanding on restoration of earthquake-damaged pagodas in the famed Buddhist tourism center of Bagan.

## 19. Supreme Court appoints nodal officers for Rohingya children

- The Supreme Court designated the sub-divisional magistrates of Mewat district in Haryana and areas in Delhi where Rohingya camps are located to act as nodal officers for the welfare of refugee children.
- Rohingya parents or relatives could approach the nodal officers with grievances about the lack of access to health and education of their children.

### Background

- basic amenities were denied to Rohingya living in the camps as they did not have any identification.

- The court said it would examine if amenities such as drinking water were proportional to the population in these camps and whether they were adequate

### Govt report

- The government, countered that Rohingya in the camps were getting the same treatment and facilities as Indian citizens living nearby.
- The government produced a field report.

### Court's concern

- The fundamental right to basic amenities and a dignified life cannot be confined to Rohingyas alone but has to extend to their Indian neighbours living in the same slum.
- The Supreme Court cannot shine the spotlight solely on Rohingya refugee camps without doing anything for the poor living conditions of Indian citizens in slums

# SOCIAL ISSUES

## 1. Muthi Hala Bidai ritual

- This ritual is performed by Tiwa tribesmen prepare in Karbi Anglong district of Assam
- Muthi Hala Bidai ritual is to worship nature by making replicas of wild animals and birds to protect their crops from pests and other natural calamities and for a bountiful harvest

## 2. Real Estate (Regulation and Development) Act, 2016

- It is aimed at protecting home buyers from real estate developers who fail to deliver on time and regulating India's murky real estate sector. RERA seeks to bring clarity and fair practices that would protect the interests of buyers and also impose penalties on errant builders.

### Delay in projects are the biggest issue faced by buyers.

The reason include

- Diversion of funds to other projects,
- Changes in regulations by authorities, the environment ministry, national green tribunal etc and other bodies like those involved in infrastructure development and governing transport.
- In many places, land acquisition becomes an issue.
- Errant builders often sell projects to investors without the approval of plans, unauthorised increase in FAR, bad quality of construction, projects stuck in litigation etc.

### Structure

- According to RERA, each state and Union territory will have its own regulator and set of rules to govern the functioning of the regulator.
  - \* Centre has drafted the rules for Union territories including the national Capital
- Real Estate Regulatory Authorities (RERAs) to regulate transactions related to both residential and commercial projects and ensure their timely completion and handover
- It will be the responsibility of each state regulator to register real estate projects and real estate agents operating in their state under RERA.
- The details of all registered projects will be put up on a website for public access.
- Appellate Tribunals will now be required to adjudicate cases in 60 days as against the earlier provision of 90 days and Regulatory Authorities to dispose of complaints in 60 days

### Key Provisions

- The Act stipulates compulsory registration of all the residential real estate projects with plot size more than 500 sq. meters, with the regulator.

- The promoter of a real estate development firm has to maintain a separate escrow account for each of their projects.
  - \* A minimum 70 per cent of the money from investors and buyers will have to be deposited.
  - \* This money can only be used for the construction of the project and the cost borne towards the land
- RERA requires builders to submit the original approved plans for their ongoing projects and the alterations that they made later.
  - \* They also have to furnish details of revenue collected from allottees, how the funds were utilised, the timeline for construction, completion, and delivery that will need to be certified by an Engineer/Architect/practicing Chartered Accountant.
  - \* To provide clarity to buyers, developers will have to keep them informed of their other ongoing projects.
- RERA talks about the quality of construction in projects.
  - \* The regulator will ensure protection to buyers in this matter for five years from the date of possession.
  - \* If any issue is highlighted by buyers in front of the regulator in this period including in quality of construction and the provision of services, the developer will have to rectify the same in a matter of 30 days.
- Developers can't invite, advertise, sell, offer, market or book any plot, apartment, house, building, investment in projects, without first registering it with the regulatory authority.
- If the promoter defaults on delivery within the agreed deadline, they will be required to return the entire money invested by the buyers along with the pre-agreed interest rate mentioned in the contract based on the model contract given by RERA.
  - \* If the buyer chooses not to take the money back, the builder will have to pay monthly interest on each delay month to the buyer till they get delivery.
- To add further security to buyers, RERA mandates that developers can't ask more than 10 per cent of the property's cost as an advanced payment booking amount before actually signing a registered sale agreement.

**Penalty**

- Incorrect or incomplete disclosure will attract a penalty of 5% of project cost.
- the project may even be cancelled if rules are regularly flouted.
- If a developer leaves a project half-way, for any reason, the association of allottees will have the right to refuse and get their money back with interest.
- They can also demand from the authority to get the project completed by another developer or any other means.
- The regulator will have the power to fine and imprison errant builders based on a case by case basis. The imprisonment can go up to a period of three years for a project.

**Issue Area**

- Only 20 of the 28 States (the Act is not applicable in Jammu and Kashmir) have framed the rules stipulated under RERA to carry out its legal mandate.
- In some States such as Uttar Pradesh, the Act's provisions have been watered down in favour of builders by altering the definition of "on-going projects" which need registration under RERA.
- There is also a dilution on the penalties for non-compliance.
- Similarly, the speedy dispute redress mechanism envisaged by the Act is yet to take shape.
- Apart from Maharashtra, only Punjab and Madhya Pradesh have appointed a permanent regulatory authority (to be established within a period of a year).
- To ease the transition, RERA allows State governments to designate an existing body as the regulatory authority until a permanent one is established. This has resulted in 13 States working with only a designated regulatory authority. West Bengal is yet to even designate a regulatory authority.
- Additionally, only six States have set up the online portal contemplated by the Act. In the Northeastern States, RERA has been challenged on certain constitutional grounds — of land belonging to the community and autonomous councils.

**Maharashtra as example**

- In contrast, Maharashtra, which has established both the regulatory authority (Maharashtra Real Estate Regulatory Authority, or MahaRERA) and the appellate tribunal, has shown that with earnest action, the Act and the establishment of the permanent regulator can have a positive impact in reassuring real estate purchasers.
- MahaRERA's online portal has led to builders registering projects and a high degree of compliance in terms of registration by real estate agents.
- This along with fast track adjudication of consumer complaints has made the MahaRERA an example of how other States need to implement the Act.

**Benefits**

- RERA also provides for the regulation and maintaining of records of real estate projects, the objective being to facilitate the growth and promotion of a "healthy, transparent, efficient and competitive real estate sector". Given that the Central government is keen to curb black money, a large part of which has its origins in or finds its way into real estate, it needs to ensure that States give full effect to RERA.
- The real estate contributes 9% to the national GDP and the Act is seen as crucial to ensuring better regulatory oversight and orderly growth in the industry.
- Single regulator
- Accountability and transparency
- Diversion of funds cannot be done
- Fast tract dispute settlement

**Concerns**

- Definition of promoter is a point of concern
  - \* RERA prescribes a wide definition for "promoter" that includes any person who causes the construction or sells constructed apartments. This has sparked fear.
  - \* Being classified as promoter entails a multitude of obligations under RERA, including making regulatory filings, procuring completion or occupation certificate, insuring the project, etc., and grave penal consequences follow non-fulfilment of such obligations
- Clearances takes time

**3. Swachh Sarvekshan 2018**

- It is a survey aimed at assessing all the municipal cities in the country for their progress on the government's flagship Swachh Bharat Mission

**Ranking**

- For the second consecutive year, Indore has been named India's cleanest city under Swachh Sarvekshan 2018, followed by Bhopal and Chandigarh
- Jharkhand has been adjudged as the 'Best Performing State' in the survey followed by Maharashtra and Chhattisgarh.
- The list of cities also did not mention cities from states like Bihar, Tamil Nadu and Odisha.

**Among other highlights of the Swachh Sarvekshan 2018:**

- Fastest moving big city: Ghaziabad in Uttar Pradesh
- Cleanest Big City: Vijayawada
- Cleanest medium-sized city: Mysuru
- cleanest small city: New Delhi municipal council
- Best city in citizens FB: Kota (Rajasthan)
- Best City in Innovation: Nagpur

India's Cleanest City Zone-Wise -

- North: Bhalso, Punjab
- East: Bundu, Jharkhand
- North-East: Kakching, Manipur
- South: Siddipet, Telangana
- West: Panchgani, Maharashtra

**4. Hague Abduction Convention**Context

- A committee set up by the Centre to prepare a report on the issue of inter-country parental child abduction has questioned one of the basic principles of the Hague Convention by arguing that the return of the child to his or her habitual residence may not necessarily be in the best interest of the child.

Justice Rajesh Bindal Committee

- It was set up in 2017 to suggest a model legislation to safeguard the interest of the child as well those of the parents when an NRI (Non Resident Indian) marriage goes sour and one of the parents flees from one country to another with the child.
- The Committee feels that the concept of habitual residence is not synchronous with the best interest of the child
- Returning a child to the place of habitual residence may result in sending the child to an inharmonious set-up as well as overlook the fact that a mother is the primary caregiver of the child.
- The panel has also emphasized the importance of the "Indian family system" in ensuring the best interest of the child, seemingly to question the logic behind returning the child to a place of habitual residence outside India.
  - \* A child, even if he may have stayed in some other country, would never be completely uprooted from the country of his parents' origin, who have families back home in India

Inter-Country Parental Child Removal Disputes Resolution Authority

- It will be the nodal body to decide on the custody of the child, mediate between the warring parties, as well as order the return of the child to the country of habitual residence.
- Mediation often proves a successful technique to resolve disputes amongst couples at odds. In most of the cases where one of the spouses removes the child from joint custody/custody of other spouse, the root cause is lack of harmony in the spousal relationship.
  - \* Sometimes, if made to sit across the table with a mediator, the likelihood of better sense prevailing upon the couple increases, therefore, the Authority should promote mediation as the first resort.

- \* Even Hague Conference on Private International Law has issued 'Guide to Good Practice on Mediation' in 2012 and is promoting mediation at the very first stage, not only for resolution of disputes pertaining to parties belonging to Contracting States but even non-Contracting States to the Hague Convention.

- It is medically proved that separation of a child from either of the parents, or the child being a witness to domestic violence, has a negative effect on its growth.

- \* Further, to remove any allegation of tutoring of the child by the taking-parent, the left-behind parent should be given immediate access to the child.

- \* This can be either on mutually agreed terms or by an order passed by the proposed Authority or the Court. The proposed Authority should arrange for immediate access and/or visitation rights on an application filed before it.

- The proposed Authority, while dealing with the cases involving inter-country parental child removal, must be mindful of the fact that the child should not be reduced to the status of a commodity in such litigation
- Before allowing the child to be taken to another country, the proposed Authority shall ensure the wellbeing of the child in the other country through diplomatic channels or otherwise

Conditions for refusal

- The important conditions under which a child's return can be refused are — best interest of the child, domestic violence or mental or physical cruelty or harassment against the parent who fled with the child, the parent claiming the return of the child was not exercising the custody rights at the time of removal, and if there is a grave risk that the child would be exposed to physical or psychological harm.

Background

- In 2016, the government had decided not to be a signatory to the treaty on the ground that it can be detrimental to the interest of the women fleeing an abusive marriage.

**5. World Urbanization Prospects report**

- The Population Division of the Department of Economic and Social Affairs of the United Nations has been issuing since 1988 revised estimates and projections of the urban and rural populations of all countries in the world and of their major urban agglomerations.

India

- According to it, India has one of the fastest-growing urban populations in the world.
- India, China and Nigeria will together account for 35% of the projected growth of the world's urban population between 2018 and 2050.

- \* In scale, India will outstrip even China and Nigeria.
- \* The report estimates that by 2050, India will have added 416 million urban dwellers, China 255 million and Nigeria 189 million.
- Already Delhi — or the National Capital Region — is the world's second-most populous urban agglomeration.
  - \* By 2028, in just a decade, Delhi will become the world's most populous city, outstripping Tokyo.
- By 2030, India will have seven cities with populations in excess of 10 million,
  - \* Two cities in the 5-10 million bracket,
  - \* As many as 62 cities in the 1-5 million range, and
  - \* A staggering 70 more with populations between half and 1 million.

### World

- Currently, North America is the most urbanized region, with 82 percent of its population living in urban areas in 2018.
- It is followed by Latin America and the Caribbean (81 percent), Europe (74 percent) and Oceania (68 percent).
- Although Asia and Africa are expected to become highly urbanized over the next three decades, they currently have many people residing in rural areas.

### Issue Area

- India may be ratcheting up the number of mega urban agglomerations, these cities will be megacities only in terms of sprawl and population and will sorely be lacking the kind of urban infrastructure as seen in global megacities like London, Tokyo and New York.
- India is heading towards an urban crisis of apocalyptic proportions.
  - \* India does not have the infrastructure to cater to the needs of so many people.
  - \* It does not have the resources — whether water, transport, housing, education or health care — that will be in demand then.

### Policy Paralysis

- we don't appear to have a plan in place on how we are going to deal with this
- In terms of Smart Cities Less than 7% of the funds allocated for the entire project have been used so far.
  - \* in the three years since the programme was launched, completed projects account for only 1.4% of the total investment envisaged.
  - \* Many cities are still in the planning stage
- complex, overlapping and often conflicting layers of authority in most of our cities
- lack of institutional capacity within civic authorities, particularly when it comes to planning and project execution

### Policy Paralysis

- Water is going to be a critical challenge in virtually every city in India. This needs a holistic approach that integrates national, regional, State and local level initiatives.
- Uncontrolled and unplanned urbanisation and the near absence of reliable public transportation have added another mega problem to the list: pollution.

The point is that as a nation, our people, our political leadership and our policy planners need to act now

### 6. Domestic Violence Act for divorced women

- The Domestic Violence Act — meant to punish men who abuse women in a relationship — extends to all man-woman relationships, and also protects divorced women from their former husbands, the Supreme Court has upheld.
- A three-judge Bench of confirmed a Rajasthan High Court ruling of 2013 that the term 'domestic violence' cannot be restrained to marital relations alone.

### SC Order

- The Supreme Court's recent order found no reason to differ with the High Court's conclusion that 'domestic relationship' includes "consanguinity, marriage, a relationship in the nature of marriage, adoption or as family members living together as a joint family".
- The apex court did not intervene with the interpretation that 'domestic relationship' is not confined to the relationship as husband and wife or a relationship in the nature of marriage, but it includes other relationship as well such as sisters, mother, etc.

### Court's Observations

- Domestic relationship includes any relationship between two persons who either live at the present moment or have at any point of time in the past lived together in a shared household. Absence of subsisting domestic relationship in no manner prevents the court from granting certain reliefs specified under the Act.
- The court held that domestic violence can continue even after divorce and the reach of the Act should not be shackled by confining only for the protection of women living in marriage.
- It illustrated how a divorcee husband could resort to violence by entering the workplace of his former wife to commit an act of violence, or even attempt to communicate with her, or threaten or cause violence to her relatives or dependents or any other person.
- It amounts to domestic violence if the former husband tried to dispossess the woman from a jointly-owned property or refuse to return her 'stridhan' or valuable security or other property. The Act brings all these acts of violence within its ambit.



## 7. Supreme Court wants trials in child sexual abuse cases to be fast-tracked

### Context

- Supreme Court directed High Courts to set up panels of its judges to regulate and monitor trials under the Protection of Children from Sexual Offences (POCSO) Act.

### Cause of concern

- The Supreme Court, which had ordered a review of the backlog under POCSO, found that States such as Uttar Pradesh have over 30,000 cases pending despite the child protection law coming into existence as early as 2012.
- Many States have not yet even set up Special Courts to try POCSO cases as mandated by the law.

### Speedy justice

- Government warrants investigation to be completed in two months and courts to dispose of appeals in six months, ensuring speedy justice to victims

### Measures to be taken

- The State police chiefs should constitute special task forces to investigate cases,
- High Courts should ensure that they are tried and disposed of by the designated Special Courts under the Act;
- POCSO judges will give no adjournments and make every effort to fast-track trial,
- witnesses should be produced in court on the day of the hearing
- High courts should make every effort to provide a child-friendly atmosphere in tune with the spirit of the Act.

## 8. Gender bias caused 'excess' deaths of girls under 5: Lancet study

- There have been 2,39,000 excess deaths per year of girls under the age of five in India, and 29 out of 35 States and Union Territories in the country contributed to this mortality, according to a study in the online, open access, peer-reviewed journal Lancet Global Health.
- That works out to about 2.4 million deaths in a decade. The additional deaths were found in 90% of districts in the country.
- Around 22% of the overall mortality burden of under-five females is therefore due to gender bias. Excess mortality is the difference between observed and expected mortality rates in both genders.
- To arrive at this number for India, the researchers calculated the difference between these two numbers in 46 countries that consistently did not have a problem with gender discrimination. They then used that to define an equation and arrive at the numbers for India.

- Most studies of India's skewed sex ratios have focussed on pre-natal mortality. The National Family Health Survey in 2017 said that India's sex ratio at birth increased to 919 in 2015-16 from 914 in 2004-05.
- This study, however, focuses on mortality after birth and says that the problem is most pronounced in northern India, where the four largest States in the region, Uttar Pradesh, Bihar, Rajasthan, and Madhya Pradesh, accounted for two-thirds of the total excess deaths of females under five. In Uttar Pradesh, excess female mortality was calculated at 30.5. In Bihar, the rate was 28.5, in Rajasthan it was 25.4, and in Madhya Pradesh, it was 22.1.
- The average level of excess mortality in girls aged 0-4 in the study period of 2000-2005 was 18.5 per 1,000 live births, compared to the expected mortality of girl children aged under five in areas of the world without known gender discrimination. This study period was chosen because it had the most consistent district-level data.

### Rural areas

- The worst affected areas were all rural, agricultural areas with lower levels of education, high population densities, low socio-economic development and high levels of fertility. Many deaths of females under five were partly due to unwanted childbearing and subsequent neglect.
- The sustained fertility decline currently observed in north India is likely to lead to a reduction in postnatal discrimination. Unless son preference diminishes, lower fertility, however, might bring about a rise in gender-biased sex selection as was observed 20 years ago in western India.

# SCIENCE AND TECHNOLOGY

## 1. Anitha-SAT

- It is a lightweight satellite developed by a 17-year-old Plus Two pass out student to measure the effects of air pollution and global warming
- The conical-shaped satellite weighs just 500 grams
- It is named after the late Ariyalur student who could not pursue her career in medicine after failing to clear the entrance test.

### How does it work?

- Fitted with global positioning system and a camera, the satellite was pushed into troposphere, to a height of 15 km, in a helium balloon. It has three-hour lifespan
- It will carry sensors to measure various parameters like temperature, pressure, air quality and concentration of gases including carbon monoxide.
- GPS for positioning, gyrometer and accelerometer to measure orientation and angular speed.
- Barometer to measure the height.
- A camera to telecast the mission live.

### How will this data reach the ground?

- When the helium balloon nears the uppermost layer of the earth's atmosphere, it will explode, and the capsule will descend.
- The capsule will also be equipped with a parachute when it reaches around 8,000m from sea level, and once it falls into the sea, the satellite would be recovered.

## 2. APSTAR-6C

- China launched a new communication satellite "APSTAR-6C"
- The satellite was sent into orbit by the Long March-3B carrier rocket.
- Both the satellite and the rocket were developed by the China Aerospace Science and Technology Corporation.
- The satellite will provide TV transmission, communication, Internet and multimedia services to customers across the Asia-Pacific region.

## 3. Blue Origin

- Bezos founded Blue Origin in 2000 to develop private human access to space travel.

### **New Shepard System**

- Jeff Bezos' space company, Blue Origin, successfully launched a recycled rocket carrying a crew capsule
- The reusable rocket, called the RSS H.G. Wells, reached its highest altitude

- The New Shepard space vehicle consists of a reusable rocket and a crew capsule designed for space tourism.
- It will travel at a speed faster than Mach 3 to reach the Karman line, then the rocket will detach from the capsule.
- As the rocket returns to the surface, the capsule will slowly descend to Earth via a parachute allowing passengers to experience a period of weightlessness and see the heavenly view at the edge of space.

### **Suborbital Flight**

- Sub-orbital spaceflight is when a spacecraft goes into space but does not reach the altitude where it can orbit Earth. It goes to the end of the atmosphere, or specifically, 100km (62 miles). Right at this distance above the planet is where people can experience weightlessness.
- It was Theodore von Karman who formulated the idea of a certain altitude where the atmosphere was too thin for regular flight.
- Called the Karman line, 100km is approximately where the thermosphere starts and is considered the "edge of space."
- It's in this part of the Earth's atmosphere where solar radiation gets absorbed and can reach temperatures 360 degrees Fahrenheit on regular days, but can go as high as 900 degrees when there's a lot of solar activity.

## 4. Carbon Monitoring System (CMS)

### In news

- Donald Trump has cancelled NASA's greenhouse gas monitoring system, prompting concern it will hinder efforts to bring down global emissions.

### Details

- The space agency's Carbon Monitoring System (CMS) has used satellite and aircraft instruments to monitor carbon dioxide and methane levels remotely - spending \$10m (£7.35m) each year.
- Existing grants would be allowed to finish but no new research would be supported

## 5. Insight Mission

- InSight, short for Interior Exploration using Seismic Investigations, Geodesy and Heat Transport, is a Mars lander designed to give the Red Planet its first thorough checkup
- It is the first outer space robotic explorer to study in-depth the "inner space" of Mars: its crust, mantle, and core

- Studying Mars' interior structure answers key questions about the early formation of rocky planets in our inner solar system - Mercury, Venus, Earth, and Mars - more than 4 billion years ago, as well as rocky exoplanets. InSight also measures tectonic activity and meteorite impacts on Mars today.
- This mission is part of NASA's Discovery Program for highly focused science missions that ask critical questions in solar system science.
- This is the first launch to another planet from the West Coast

#### Study Quakes

- It will use seismology (the study of quakes) to determine the makeup and structure of the Red Planet's core, mantle, and crust.
- Currently, we know that Mars' crust consists of lighter rocks and minerals, while heavier materials sank down to form its core and mantle.
- To learn more about its internal composition, the lander will use specialized instruments to observe seismic waves during "marsquakes."

#### Instruments

- The key instrument on board is a seismometer, called the Seismic Experiment for Interior Structure, made by the French Space Agency.
- After the lander settles on the Martian surface, a robotic arm is supposed to emerge and place the seismometer directly on the ground.
- The second main instrument is a self-hammering probe that will monitor the flow of heat in the planet's subsurface. Called the Heat Flow and Physical Properties Package, it was made by the German Space Agency with the participation of the Polish Space Agency.

### **6. When NECTAR turned poison for bamboo**

New Delhi's renewed bid to turn bamboo into gold is riding a repackaged failure

- Union Finance Minister Arun Jaitley allocated ₹1,290 crore in Budget 2018 for a restructured National Bamboo Mission (NMB).
- ordinance in November 2017 amending the Indian Forest Act to rid bamboo, botanically a grass, of its tree tag for 90 years and exempting it from requiring permits for felling or transportation.

#### **Longai River**

- The Longai River is a trans-boundary river in India and Bangladesh. It rises in the Jampui Hills of the Indian state of Tripura. It enters Karimganj district of Assam. Later it enters Bangladesh, and drains in Hakaluki Haor

#### **National Mission on Bamboo Application (NMBA)**

- The Department of Science and Technology (DST) had in 2004 launched the National Mission on Bamboo Application (NMBA) with an outlay of ₹200 crore.

#### Issue Area

- In almost a decade since, the NMBA has spent ₹100 crore on building demo bamboo houses that hardly impacted lives across India's bamboo belts.
- An amount of ₹40 crore, refundable in instalments, was also provided to entrepreneurs as technology development assistance for partly procuring machinery and equipment. Contrary to its name, the NMBA neither developed any technology nor facilitated technology transfer for the assisted units.
- NMBA also failed to develop market linkages and virtually went off the radar.
- To add to their misery, the Centre slashed duty on imported bamboo products from 30% to 10%.
  - \* Unable to compete with cheaper bamboo products – allegedly Chinese routed through Southeast Asian countries – in the domestic market, 99.7% of the 385 bamboo units formed with NMBA's assistance shut shop.

New The Centre realized the NMBA was remote-controlling the sector from New Delhi.

- The government first suddenly shut down the Rs 200-crore NMBA in December 2013 without fixing any accountability to its functionaries.
- In 2013, the Union Cabinet approved the creation of an autonomous society registered and headquartered in Shillong with a fund allocation of ₹292 crore.

#### **North East Centre for Technology Application and Research (NECTAR)**

- NECTAR set up in 2012 as an autonomous society under Department of Science and Technology to assist the North-Eastern region of the country is ensuring applications of appropriate technologies for development in the areas of biodiversity, watershed management, telemedicine, horticulture, infrastructure planning and development, planning and monitoring, tele-schooling using cutting edge MESHNET solutions, employment generation, etc. through utilization of local products/resources and resulting in associated skill development.
- NECTAR, though, isn't all about bamboo. It covers "local and natural resources" of the region comprising Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
- Apart from providing technical expertise to market local products, its mission included women empowerment

#### Targets set by NECTAR consist of projects in the following areas:

- Projects that secure safety and security of people
- Projects that contribute to Urban Management and Urban Civic Services (CCTV based surveillance systems/traffic management technology), Radio networks, 3-D terrain models, etc.;
- Projects that enable critical, reliable communication at high bandwidth and employing high speeds

- Tele-medicine and E-education meshnets.
- Projects that enable mapping of scarce and critical natural resources like water, forests, public utilities, etc. using 3-D GIS platform at a very high resolution;
- Wide-ranging training and technology projects in areas of bamboo applications across the entire value chain from bamboo growth, primary processing to modern applications and products;
- Income and livelihood programmes in agriculture, horticulture and agri-processing;
- Training and skills development programmes in rural and backward regions

#### Issue Area

- It has constituted NECTAR with practically the same set of people, which instead of extending support to the 70-odd units, has started lodging cases against the bamboo entrepreneurs for being defaulters of the now non-existent NMBA's funds
- One of the tasks entrusted to NECTAR is to provide wide-ranging training and technology projects in areas of bamboo applications across the entire value chain from bamboo growth, primary processing to modern applications and products. But this appears to be only on paper

### **7. ISRO making green propellant**

#### Context

- Scientists at the Indian Space Research Organisation (ISRO) have reported progress in the development of an environment-friendly propellant to power satellites and spacecraft.

#### What is it?

- The effort is to replace the conventional hydrazine rocket fuel, a highly toxic and carcinogenic chemical, with a greener propellant for future missions.
- Initial tests by a research team at the Liquid Propulsion Systems Centre (LPSC) here have shown promising results in the formulation and associated tests of a propellant blend based on Hydroxyl Ammonium Nitrate (HAN)

- \* It is less toxic than Hydrazine

#### Hydrazine

- Hydrazine has dominated the space industry as the choice of propellant due to its high performance characteristics
- It has environment and health hazards and the challenges faced in its manufacturing, storage, ground handling and transportation.

- \* It is highly corrosive

#### Monopropellant

- A monopropellant is a chemical propulsion fuel which does not require a separate oxidizer.
- It is used extensively in satellite thrusters for orbital correction and orientation control.

### **8. Chongqing Liangjiang Star**

#### Context

- A suborbital rocket was launched into space by a start-up in China's burgeoning commercial aeronautics industry, as private firms snap at the heels of their dominant American rivals.

#### Details

- OneSpace, the Beijing-based start-up behind the launch
- The launch aimed to demonstrate an early working model of the company's OS-X series of rockets, designed to conduct research linked to suborbital flights.
- By the end of the decade One Space expects to build 20 of the OS-X rockets, which would be capable of placing 100-kilogramme (220-pound) payload into an orbit 800 kilometres from the Earth's surface
- The firm is also developing another type of rocket, the M-series, to compete in the growing microsatellite sector.
- These small satellites are typically no larger than a shoebox and are used to monitor crops, weather patterns or disaster sites or used by universities for research purposes

### **9. Queqiao satellite/ Magpie Bridge**

#### Context

- It was named after an ancient Chinese folk tale
- China launched a relay satellite early designed to establish a communication link between earth and a planned lunar probe that will explore the dark side of the moon
  - \* The moon is tidally locked to Earth, meaning it always shows the same face (the near side) to our planet.
  - \* So, a relay link is necessary to communicate with spacecraft on the far side, which would otherwise have to send their signals through the moon's rocky bulk.

#### Details

- It was launched on a Long March-4C rocket
- The launch is a key step for China to realize its goal of being the first country to send a probe to soft-land on and rove the far side of the moon
- Queqiao is also carrying a radio-astronomy package called the Netherlands-China Low-Frequency Explorer (NCLE), which will hunt for radio emissions from the universe's infancy, study space weather, characterize the radio environment of the Earth-moon system and make a range of other measurements.
  - \* NCLE is a pathfinder experiment; its observations should aid in the design and development of a future radio-science instrument that will study the heavens from a perch in space or on the moon



- Queqiao is now its way to the Earth-moon Lagrange point-2, a gravitationally stable spot about 40,000 miles (64,000 kilometers) beyond the lunar far side. The satellite will set up shop there and wait for China's robotic Chang'e 4 lander-rover spacecraft, which is expected to launch in November or December.
- It will settle in an orbit about 455,000 km (282,555 miles) from the Earth and will be the world's first communication satellite operating there
- China aims to catch up with Russia and the United States to become a major space power by 2030. It is planning to launch construction of its own manned space station next year.

#### Chinese Lunar Exploration Program (CLEP)

- It is also known as the Chang'e program after the Chinese moon goddess Chang'e, is an ongoing series of robotic Moon missions by the China National Space Administration (CNSA).
- Chang'e 4 will become the first craft ever to touch down on the moon's far side, which forever faces away from Earth.
- The first two missions, Chang'e 1 and Chang'e 2, launched orbiters to the moon in 2007 and 2010, respectively. Chang'e 3 put a lander and a rover (called Yutu, "Jade Rabbit") on the lunar surface in December 2013.

### 10. Ruthenium (Ru)

#### Context

- Scientists have discovered that the chemical element ruthenium (Ru) is the fourth element to have unique magnetic properties at room temperature.
- The discovery, led by researchers at the University of Minnesota in the US

#### Other elements

- Three elements on the periodic table have been found to be ferromagnetic at room temperature - iron (Fe), cobalt (Co), and nickel (Ni).
- The rare earth element gadolinium (Gd) nearly misses by only 8 degrees Celsius.

#### Significance

- This could be used to improve sensors, devices in the computer memory and logic industry, or other devices using magnetic materials

### 11. Lunar rock points to hidden water reserves on Moon

#### Context

- Scientists have found a mineral in a lunar meteorite that points to the presence of abundant hidden reserves of water ice under the surface of the Moon, which could be potentially useful for future human exploration.
- They found the mineral, called moganite, in a lunar meteorite

#### Moganite

- It is a crystal of silicon dioxide, is known to form on Earth in specific circumstances in sedimentary settings from alkaline fluids.

#### Details

- Researchers believe the mineral formed on the surface of the Moon in the area called Procellarum Terrane, as water originally present in lunar dirt evaporated due to exposure to strong sunlight

#### Evidence of water from Past Missions

- Nasa's Lunar Crater Observation and Sensing Satellite detected a shadowed crater near the Moon's south pole.
- India's probe Chandrayaan-1 recorded evidence of water in the thin atmosphere above the Moon's surface.
- However, there has been no evidence so far of the presence of water in the subsurface at mid and lower latitudes

The researchers estimate that the water content in the lunar soil under the surface could be up to 0.6%. If that is right, future Moon explorer could theoretically extract about 1.6 gallons of water per 36 cubic feet of lunar rock

### 12. Problems with a DNA registry

#### Context

- Despite the spate of violent attacks against women, including rapes, in India, very few of the men implicated have been convicted. The outrage over these attacks has reinforced the belief that India needs a sex offenders' database or a DNA database of those accused and charged with rape.

#### Stats

- According to the National Crime Records Bureau, only about a quarter of rape cases ended in conviction in 2016. These rates are low in other countries too.

#### Issue Area

- DNA identification technologies have advanced so much that even minor genetic differences, such as those among family members, may be used to distinguish individuals and identify a person from his or her unique DNA.
- Still, planting of DNA in a crime scene, misinterpretation of tests, and errors in analyses have all taken place in cases where DNA has been used to implicate a suspect, resulting in the miscarriage of justice.
- Besides, everybody leaves traces of DNA in numerous places, as cells are shed, leading to ridiculous mistakes
- Protecting innocent people's privacy and their civil liberties and rights are the main concerns.
- The police sometimes use DNA dragnets whereby all the people in a community are persuaded to give their saliva or blood in order to identify a possible suspect amongst them.

- \* These methods are simply an expansion of the 'stop and search' approach to target particular groups of people on the basis of race, ethnicity or class, even though most of their members would be innocent.
- \* It was reported that in 2007, close to three-quarters of the young black male population in the U.K. were on the DNA database

#### **Experience from other countries**

- Experience with the U.K. and U.S. databanks has shown that having more innocent people's DNA stored increases the chances of a false positive and has not increased the chances of finding a guilty match.

#### **What should be done?**

- One, it is absolutely essential that the people from whom DNA is taken give their informed consent; taking DNA surreptitiously should be prohibited.
- Two, a court order should be required for obtaining DNA without informed consent and the DNA should only be compared with the crime scene DNA for the suspect.
- Three, those who are cleared for a crime should not have their DNA information stored, and DNA gathered from offenders should be destroyed after identification so that such information is not used for profiling in future.
- Four, a court order should be necessary to access medical records for genetic data.

# SECURITY AND DEFENSE RELATED

## 1. GravityRAT

- It is a malware allegedly designed by Pakistani hackers, which has updated its programming capabilities and is equipped with anti-malware evasion capabilities
- the latest update to the program by its developers is part of GravityRAT's function as an Advanced Persistent Threat (APT), which, once it infiltrates a system, silently evolves and does long-term damage.

### What is it?

- The RAT was first detected by Indian Computer Emergency Response Team, CERT-In, on various computers in 2017. It is designed to infiltrate computers and steal the data of users, and relay the stolen data to Command and Control centres in other countries.
- The 'RAT' in its name stands for Remote Access Trojan, which is a program capable of being controlled remotely and thus difficult to trace.

### How is it different from other Malwares?

- GravityRAT is unlike most malware, which are designed to inflict short term damage. It lies hidden in the system that it takes over and keeps penetrating deeper.
- GravityRAT has now become self aware and is capable of evading several commonly used malware detection techniques,
- One such technique is 'sandboxing', to isolate malware from critical programs on infected devices and provide an extra layer of security.
- Typically, malware activity is detected by the 'noise' it causes inside the Central Processing Unit, but GravityRAT is able to work silently.
- It can also gauge the temperature of the CPU and ascertain if the device is carrying out high intensity activity, like a malware search, and act to evade detection,
- The other concern is that the Command and Control servers are based in several countries. The data is sent in an encrypted format, making it difficult to detect exactly what is leaked.

### How does the Trojan enter the system?

- GravityRAT infiltrates a system in the form of an innocuous looking email attachment, which can be in any format, including MS Word, MS Excel, MS Powerpoint, Adobe Acrobat or even audio and video files.

- The hackers first identify the interests of their targets and then send emails with suitable attachments. Thus a document with 'share prices' in the file is sent to those interested in the stock market. Once it is downloaded, it prompts the user to enter a message in a dialogue box, purportedly to prove that the user is not a bot. While the users take this to be a sign of extra security, the action actually initiates the process for the malware to infiltrate the system, triggering several steps that end with GravityRAT sending data to the Command and Control server regularly

### What should be done?

- People should follow basic cyberhygiene like watching what they download, updating their anti-virus software and conducting cyber security reviews regularly.

## 2. Maharashtra Control of Organised Crime Act (MCOCA), 1999

### What was the need?

- The menace of organised crime, was on the increase and there was no effective law in the Maharashtra State to effectively control the organised crimes. Mumbai being the economic capital of India, it is a targeted centre of criminals who hoard money through illegal means.
- criminal activities like murders of tycoons related to film industry as well by builders, extortion of money from businessmen, abduction etc. show that criminal gangs are active in the state.
- To cope with them- legislation in the lines of the present law was essential. Effective measures against the misuse of law have been provided

### How MCOCA is different from IPC?

- Under MCOCA, police get 180 days to file charge sheet, under IPC, it must be done in 60-90 days
- 30-day police custody instead of max 14 days under IPC
- Essentially, based on the premise the accused is "guilty until proven innocent"
- Punishment ranges from 5 years imprisonment to death
- Confession before senior police official admissible in court
- Extremely difficult to secure bail

### Safeguards

- Under MCOCA and GCTOC, there are several safeguards for the citizen, prime among them being the stipulation that the permission of a Deputy Inspector General of Police (DIG)/Additional Commissioner of Police (ACP) is required for registering a case.

- Also, the investigating officer will have to be of the rank of Deputy Superintendent (DSP).
- The permission of an Additional Director General of Police (ADGP) is required for charge sheeting an accused before a court.
- The Dharmadhikari Committee, which was appointed by the Maharashtra government to go into the working of MCOCA, found no major shortcomings or criticism that would detract from the merits of the Act
- Facts such as there being an average of about 40 cases registered annually and about 6-7 persons arrested in each case, especially in a large State like Maharashtra, are testimony to the fact that the use of MCOCA has been extremely selective and not indiscriminate as was the case with TADA or POTA.

### 3. Naxalites develop 'Rambo arrows' and poop-laced bombs

- Naxalites are using explosive arrow heads to disorient security forces.
- As compared to the "originals" that were made of steel and could down a chopper, the versions used by the Naxalites contain low grade explosives but which generate intense heat and smoke and can distract security personnel.
- The arrow head carries low grade gunpowder or firecracker powder which explodes after hitting the target. It doesn't cause much damage but disorients security personnel. This makes it easy for Naxalites to inflict fatal battle injuries

#### Improvised mortars and rockets

- In the rockets, a conical nose filled with explosives is welded into the tail section which is filled with low explosive propellant fuel and the funnel shaped nozzle on the tail produces thrust and fins loosely screwed to the tail provide stability to the rockets in flight
- Maoists had also devised a smart way of concealing crude bombs in animal excreta to deceive sniffer dogs of security teams from detecting and alerting their masters.

### 4. Pokhran II

- It was series of five nuclear bomb test explosions conducted at the Indian Army's Pokhran Test Range in May 1998.
- Pokhran-II consisted of five detonations, of which the first was a fusion bomb and the remaining four were fission bombs.

#### Trigger

- In the 90's came the (negotiations for) CTBT (Comprehensive Test Ban Treaty). It was a tricky situation. If India signed on to CTBT, it would mean closing our nuclear option for ever.
- If it refused to sign, it would have to explicitly state why we do not want to sign.

- And since the deadline was approaching in May India had to decide.

#### What was the necessity?

- The global nuclear governance set-up after the second world war had the NPT (Nuclear Non-proliferation Treaty) as its basis and it had divided the world into the P-5 and others. India, though fully embedded to the peaceful uses of atomic energy, was not very happy with this discriminatory world.
- Atal Bihari Vajpayee said "I have been deeply concerned at the deteriorating security environment, specially the nuclear environment, faced by India for some years past. We have an overt nuclear weapon state on our borders, a state which committed armed aggression against India in 1962. Although our relations with that country have improved in the last decade or so, an atmosphere of distrust persists mainly due to the unresolved border question."
- Turning to Pakistan, Vajpayee's letter noted that China had helped Pakistan to become a "covert nuclear weapons state," and that "this bitter neighbour" has committed "three aggressions in the last 50 years." Moreover, Pakistan had inflicted "unremitting terrorism and militancy" in several parts of India.

#### Advantages

- Nuclear weaponisation has a security connotation. The country becomes stronger, there is a deterrence, and one can stabilize the security situation.
- Indian diplomacy triumphed in turning a grave crisis into an opportunity by securing legitimacy for its nuclear arsenal and removing obstacles in generating nuclear power.
- India to the nuclear mainstream and opened up the global nuclear market for development of nuclear power without signing the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) or the Comprehensive Nuclear-Test Ban Treaty (CTBT).
- there were also many countries, who were hammering us publicly but passed on congratulatory messages through unofficial channels.

#### Sanctions

The immediate challenge was to mitigate international opposition and eventually bridge the trust gap with the US.

- The tests shocked the world, particularly because they were done with utmost secrecy and the India-U.S. ties hit rock bottom. For nearly two months, the U.S. refused to have any dialogue with India and implemented the Glenn Amendment for the first time. Newer sanctions were imposed, and at one point it looked that relations would never recover.
- Immediately after the tests, the US suspended foreign secretary-level talks; over the following two years, it put more than 200 Indian entities under the sanctions list.



- The list included not only the facilities of the Department of Atomic Energy (DAE) and the Defence Research and Development Organisation (DRDO), and entities of Department of Space, but also a clutch of private sector firms that had worked for them.

#### USA's non-proliferation goals to normalise relations:

- Signing the CTBT,
- Halting production of fissile material,
- Strategic restraint,
- Strengthening export control regimes,
- Normalization of relations with Pakistan.

#### Steps taken by India

These were strongly rejected by India, but the talks proceeded on the assumption that India's security concerns should be fully understood and that India would take certain measures to suit its new status

- India met the U.S. demands more than half way, leading to an understanding, which led to President Bill Clinton's visit to India and Prime Minister Atal Bihari Vajpayee's visit to the U.S. in 2000.
- India refused to sign the CTBT, but declared a moratorium on testing;
- agreed to join the Fissile Material Cut-off Treaty negotiations without halting fissile material production;
- reaffirmed minimum deterrent without giving any number of warheads; and
- agreed to strengthen export controls.
- Additionally, India declared no-first-use and commitment to disarmament.

Though no deal could be struck, the foundation was laid for what became the nuclear deal in 2008. India's sovereign right to test a nuclear device in the future has remained intact.

#### **5. Type 001A- First China-Made Aircraft Carrier**

- The People's Liberation Army Navy's (PLA Navy) first domestically designed and built aircraft carrier, the Type 001A Shandong (CV-17), began its maiden sea trial
- Expected to be commissioned by 2020, the ship will give China a second aircraft carrier to boost its navy as it asserts its claims in the disputed South China Sea and seeks to deter any independence movements in Taiwan.
- China's sole operational aircraft carrier, the Liaoning, is a repurposed Soviet ship bought from Ukraine, which went into service in 2012.
- The possession of a native aircraft carrier places China among the few military powers with such vessels, including the United States, Russia, Britain and India.

#### **6. Inner Line Permit**

- The Inner Line Permit (ILP) is an official travel document issued by the Government of India to grant inward travel of an Indian citizen into a protected area. It is obligatory for Indians residing outside those states to obtain permission prior to entering the protected areas.
- The ILP is valid for a week but can be extended. People who frequent these States for work can opt for a special ILP renewable annually.

#### Rules

- Currently, the Inner Line Permit is operational in Arunachal Pradesh, Mizoram and Nagaland.
- The document has been issued under the Bengal Eastern Frontier Regulation, 1873 and the conditions and restrictions vary from state to state.
- It can be issued for travel purposes solely.
- Visitors are not allowed to purchase property in these regions. However, there might be a different set of rules for long term visitors, though they are not valid for central government employees and security forces.

#### Why?

- creating a demographic imbalance in the region.
- Illegal immigration from Bangladesh, Nepal and Myanmar
- It would be a threat to local culture as they feel outsiders will bring in new culture

#### NRC dilemma

- Those who were identified as foreigners after failing to make it to the list would be barred from all constitutional rights
  - \* Political commentators have said the NRC may leave 5 to 10 lakh people, mostly those with the 'Bangladeshi' tag, stateless. Assam's neighbours fear some of those declared non-citizens may relocate to their territories to cash in on the demand for cheap labour.
- Arunachal Pradesh Chief Minister Pema Khandu ordered the police to strengthen vigil along the border with Assam.
- Former Nagaland Home Minister, Kuzholuzo Nienu, wanted to bring the State's commercial hub Dimapur under the purview of the ILP because "illegal migrants sneak into Nagaland through the city." The ILP is not applicable in Dimapur.

#### Issue Area

- Organisations such as the Naga Students' Federation conduct a 'census' to keep a record on the number of non-Nagas as well as IBIs (Illegal Bangladeshi Immigrant).
  - \* This triggered vigilantism against "demography-changing" migrants.

### 7. Network For Spectrum (NFS) project

- The NFS project will boost the communication capabilities of the Defence forces in a major way leading to enhanced national operational preparedness.
- The project will also have forward linkages to other related industries such as telecom equipment manufacturing and other telecommunication related services
- The project is being implemented by Bharat Sanchar Nigam Ltd (BSNL)

### 8. Surrender and Rehabilitation Policy in J&K

- The policy will provide the youth with economic rehabilitation and suitable training to run their own business, enabling them to return to the mainstream and lead a dignified life
- The scheme is aimed at giving students and youth another chance to rebuild their career without any stress of being labelled as criminals for the rest of their lives
- The police and army are now making a bid seeking more surrenders, aiming to draw local youth away from the clutches of militancy.

#### In the past

- The J&K government had multiple surrender policies, which kept being modified with time.
- There was one in the early nineties, followed by another in 1997.
- Subsequently two more were announced.
  - \* The first in 2004 was for militants belonging to the state,
  - \* The second in 2010 for Kashmiri militants residing in Pak, who wanted to return.
- Ikhwan (Kashmir)
  - \* It is locally known as "naabedh", is a pro-government militia in the Indian state of Jammu and Kashmir, composed of surrendered Kashmiri militants
  - \* They were paid and supported by Indian security agencies. Between 1994-98, pro-government militants became an extremely potent weapon in the counterinsurgency campaign.
  - \* They helped security forces identify wanted militants and even dealt their own brand of justice, resulting in court cases, running even now. Many also contested the 1996 elections.

#### Issue Area

- There were no serious efforts to enforce a policy to handle surrendered militants

\* With their own security remaining questionable, the houses and family members of the Ikhwan were targeted by Pakistan supported militants. It is rumoured that approximately 150 Ikhwan members and police informers were eliminated during the ceasefire and as per police sources, over 500 Ikhwanis or those working with them, rejoined militant ranks.

- Men who were promised decent jobs and security have re-joined militancy because the government failed in delivering its promises.

\* In the early nineties, the surrender policy implied that each militant on surrender was entitled to ₹1.5 lakh in cash and gainful employment

- Militants had to surrender before the police, spend two months in the joint interrogation center and report to the nearest police station once a week. Many were unwilling on these terms, claiming harassment.
- banks were instructed to finance the setting up of micro/small units covering industrial and private sectors to be run by surrendered militants. Banks refused to implement the scheme, fearing losses and it failed, leaving surrendered militants disappointed and angry.
- surrendered militants, who had crossed over from Pakistan, claimed that they were even denied basic documents like ration and identity cards and many returned to join militant ranks.

#### What should be done?

- First, they should be moved out of the district or if possible the region, to reset their lives in a different environment.
- Second, the government must implement its financial package as early as possible, as most have joined militancy for financial gains.
- Third, harassment by security forces by monitoring their activities should be the minimum, as excessive harassment would force them to return to the militants' ranks. Fourth, they could be employed as motivators in the media for others.
- Finally, gainful employment at an early stage would deter them from joining militant ranks and encourage others to surrender.

### 9. Ex-diplomat gets 3 years' jail for leaking info to ISI

- A Delhi court sentenced former diplomat Madhuri Gupta to three years' imprisonment in a case of passing on sensitive official information to Pakistani intelligence officials.

#### Details

- Stating that her actions caused a "severe security threat", she was awarded the maximum sentence for the offences of spying and wrongful communication of information protected under the law, observing that an educated woman like her did not deserve any leniency

- She was held guilty under various provisions of the Official Secrets Act
  - \* The conduct of the accused in passing on sensitive/secret information in light of evidence by the prosecution categorically proves the charge under the second part of Section 3(1)(c) [obtaining, publishing or communicating to any person any secret official information which is useful to an enemy] of the Official Secrets Act, punishable by up to a period of three years in jail, as well as under Section 5 of the Act read with Section 120-B [criminal conspiracy] of the IPC

# ENVIRONMENT AND ECOLOGY

## 1. Arsenic Poisoning

### Arsenic Poisoning

- An estimated 10 million people in nine districts of West Bengal drink arsenic-laden groundwater.

### Stats

- Scientists discovered that the shallow groundwater in these districts had high levels of the mineral: up to 1,000 micrograms (mcg) per litre in places.
- The World Health Organisation's (WHO) prescribed safe level is 10 mcg per litre.

### Mass poisoning

- Today, an estimated 10 million people in nine districts in West Bengal drink arsenic-laden groundwater.
- When West Bengal's problem first attracted international attention in 1995, a researcher from the University of Colorado compared its scale with the Chernobyl disaster.
- But despite the grave warnings from international bodies like the WHO, the West Bengal government has moved excruciatingly slowly to tackle the crisis.
- So even though multiple technologies to filter arsenic from groundwater are there, awareness of arsenic's ill-effects remains low. So, people continue drinking toxic water, even when alternatives exist.

### Problems it could give rise to

When such water is consumed for years, either directly or through the food chain, the mineral damages organs like the skin, kidneys and lungs.

- The most visible symptom in early years is a classic blotchy pattern on the skin, a condition called raindrop pigmentation.
- If people showing such pigmentation don't switch to safer water, they develop hyperkeratosis — dark crusts on their palms and soles, which can get infected and make it painful to work.
- Eventually, the skin can turn cancerous.
- Simultaneously, arsenic can destroy the kidneys and liver tissue, cause conjunctivitis and affect the lungs, just as heavy smoking does. There are few organs that arsenic spares.

### How it effects children?

- The children seem symptom-free. Arsenic is a silent killer; it takes years for keratosis to show in adults and even longer in children.
- Studies also show that arsenic-exposed children have lower IQ compared to control groups.

### How can this be controlled?

- UNICEF consultants were of the opinion that public outreach ought to be the foundation of the government's mitigation strategy.
- This would mean not just painting wells, but also holding door-to-door campaigns, conducting street plays and distributing flyers about the danger of using contaminated tube wells.
- Unless this happened, patients would not go to government-run arsenic clinics or switch to safe tube wells.

### Other Measures

- Alternate arrangement for supply of arsenic free water to the affected populace and providing arsenic removal plants.
- Reverse osmosis and electro dialysis (also called electrodialysis reversal) can remove arsenic
- Technological options to combat arsenic menace, in groundwater, to ensure supply of arsenic free water, in the affected areas can be in-situ remediation of arsenic from aquifer system, ex-situ remediation of arsenic from tapped groundwater by arsenic removal technologies, use of surface water source as an alternative to the contaminated groundwater source, tapping alternate safe aquifers for supply of arsenic free groundwater or combination of above techniques.
- Subterranean Arsenic Removal (SAR) Technology can be used

## 2. Bamboo lemur/Greater Bamboo Lemur/ Broad-nosed Gentle Lemur

- These medium-sized primates live exclusively on Madagascar
- IUCN: Critically Endangered

### Features

- These are dark-furred primate — which has tufted, white-tinged ears
- They are called bamboo lemurs because they almost exclusively eat bamboo. How bamboo lemurs can detoxify the high amounts of cyanide (from bamboo shoots) in their diets is unknown

### Threat

- It is threatened by slash-and-burn agriculture, illegal logging, mining, the cutting of bamboo, and hunting with slingshots and snares, the latter exacerbated by their movements into the rice paddies.
- This is the most commonly hunted lemur species in the south.



**Conservation Efforts**

- From captive breeding to satellite tracking;
- Restoring habitats to removing predators;
- shaming multinationals to nursing baby pandas and orangutans —

in all these ways, scientists and others have given a second chance to creatures under threat.

**3. Brown Peach Aphid****Context**

- First record of invasive aphid in Kashmir Valley

**Details**

- The brown peach aphid – an insect that attacks temperate fruit trees – has been recorded
- The spread of the aphid could affect the local economy which is dependant on fruit trees to a large extent
- In India, the aphid was recorded for the first time in the 1970s from Himachal Pradesh and Punjab.
- The pest could have come with plants imported from other countries

**Issue Area**

- Aphids feed on the saps of plants, attacking plant tissues that transport food to all different plant parts.
- The brown peach aphid *Pterochloroides persicae* is a notorious pest of peach and almond trees in the Mediterranean regions.

**Control Measures**

- Several combinations and concentrations of natural chemicals including neem plant extracts and lavender oil can help control aphid numbers.

**4. Clean Air India Initiative**

- The campaign aims to curb air pollution in Indian cities by promoting partnerships between Indian start-ups and Dutch companies and build a network of entrepreneurs working on business solutions for cleaner air.
- The Clean Air India Initiative is a collaborative project between Get in The Ring, a platform for start-ups, the government of the Netherlands, Start-up India, and INDUS Forum, an online matchmaking platform of Indian and Dutch businesses

**How will it help Dutch firms?**

- A major business opportunity for Dutch firms includes the potential sale of equipment (such as sensors), data, and solutions concerning Air Quality Monitoring (AQM)

experts estimate that 80% of India is not covered by AQM data collecting which is the first step toward monitoring and combating air pollution.

**Stubble burning and control Measures**

- An 'INDUS impact' projects aims to halt the hazardous burning of paddy stubble by promoting business partnerships that "upcycle" it.
- This involves using paddy straw as feedstock to make materials that would find use in construction and packaging

**Other agreements**

- The two countries also agreed on cooperation in areas of agriculture and food processing
- They also signed pacts to deepen cooperation in areas like education, water and waste management, agriculture food processing, information technology and the development of smart cities

**5. Endosulfan**

- It is a widely-banned pesticide with hazardous effects on human genetic and endocrine systems
- Endosulfan pesticide was used widely on crops like cashew, cotton, tea, paddy, fruits and others until 2011, when the Supreme Court banned its production and distribution.

**International**

- THE UN has recommended a ban on endosulfan in 127 countries.
- The Stockholm Convention on Persistent Organic Pollutants in 2011 added it in list of banned substances and phasing it out as an agrochemical.

**Health effects**

- Higher prevalence of cancer in younger ages, neurobehavioral disorders, congenital malformations in female subject and abnormalities related to male reproductive system.
- People, especially newborns, have suffered deformities, health complications and loss of family members due to exposure to the agrochemical.

**Environment**

- In case of environment, open spraying of Endosulfan causes a disaster on the biodiversity of the area. It leads to decline in plant diversity particularly for native species.
- Fishes are worst hit.

**6. Gaj Yatra**

- 'Gaj Yatra', a nationwide campaign to protect elephants, was launched on the occasion of World Elephant Day. The campaign is planned to cover 12 elephant range states.
  - \* Tamil Nadu, Kerala, Karnataka, A.P
  - \* Assam, Arunachal Pradesh, Meghalaya, Nagaland
  - \* West Bengal, Jharkhand, Odisha
  - \* Uttarakhand.

- The 15 months campaign will be led by the Wildlife Trust of India (WTI). The campaign aims to create awareness about elephant corridors to encourage free movement in their habitat

#### **World Elephant Day:**

- World Elephant Day is an annual global event celebrated across the world on August 12, dedicated to the preservation and protection of elephants.
- The goal of World Elephant Day is to create awareness about the plight of elephants and to share knowledge and positive solutions for the better care and management of captive and wild elephants.
- World Elephant Day is celebrated to focus the attention of various stakeholders in supporting various conservation policies to help protect elephants, including improving enforcement policies to prevent illegal poaching and trade in ivory, conserving elephant habitats, providing better treatment for captive elephants and reintroducing captive elephants into sanctuaries.
- African elephants are listed as “vulnerable” and Asian elephants as “endangered” in the IUCN Red List of threatened species. As per the available population estimates, there are about 400,000 African elephants and 40,000 Asian elephants.

#### **7. Himalayan Trillium**

- The Himalayan trillium — found across India, Bhutan, Nepal and China — is a natural source of steroidal saponins which are important components of steroidal drugs.
- This helps the body create steroids to stimulate muscle growth and raise testosterone levels.
- The plant is popular in traditional Chinese medicine.

#### **occurrence and regeneration of the plant**

- trilliums grow mostly in moist hill slopes with dense tree cover.
- The plants germinated from underground tubers immediately after snow melt in April and became dormant in September as winter set in.
- Mature plants (which can live to 30 years or more) usually produce only one flower per year and vegetative reproduction through tubers occurs only in very old plants

#### **Issue Area**

- Increased demands have made its illegal collection from the wild a lucrative business in India
  - \* A kilogram fetch about Rs. 3,000-5,000.
- Traders, who buy the plants in sacks from villagers then moves through a well-established illegal network to Tibet.
- Unregulated harvests combined with such low levels of reproduction and other pressures like grazing could cause local extinction of the plant in many regions.

#### **Way forward:**

- The government of Himachal Pradesh, J&K, are taking crucial steps to stop illegal trade of Trillium and there are also many police cases behind its large collection and transportation from one place to other.

It would be important to include it as a schedule species under the Wildlife Protection Act to ensure more protection

#### **8. Indian Vulture/ Indian Griffon/Long-billed Griffon**

- Gyps indicus breeds in south-east Pakistan and peninsular India south of the Gangetic plain, north to Delhi, east through Madhya Pradesh, south to the Nilgiris, and occasionally further south
- IUCN: critically endangered

#### **Threat**

- The anti-inflammatory drug diclofenac, used to treat domestic livestock, has been identified as the cause of mortality, with renal failure resulting in visceral gout in the vast majority of examined vultures

#### **Conservation**

- SAVE (Saving Asia's Vultures from Extinction) has developed the concept of Vulture Safe Zones; areas (with a minimum of 100 km radius, equating to 30,000 km<sup>2</sup>) around important vulture breeding colonies, where education and advocacy efforts are focused on eliminating the use of diclofenac and other vulture-toxic drugs
- The Indian government has now passed a bill banning the manufacture of the veterinary drug diclofenac that has caused the rapid population decline across the Indian subcontinent
- Captive breeding efforts are ongoing
- There are currently 12 provisional Vulture Safe Zones being established in India, Nepal, Pakistan and Bangladesh
- Satellite tagging has been employed on Asian Gyps vultures to improve understanding of their movements and range use so as to aid the development of conservation strategies for the genus

#### **9. Jim Corbett National Park**

- It is the oldest national park in India and was established in 1936 as Hailey National Park to protect the endangered Bengal tiger.
- It is located in Nainital district of Uttarakhand and was named after Jim Corbett who played a key role in its establishment.
- The park was the first to come under the Project Tiger initiative.
- Geographically it is located between the Shiwalik Himalayas and the terai.
- The most famous of Corbett's wild residents are the Royal Bengal Tiger

### 10. Liocichla Bugunorum

- IUCN: Critically Endangered
- It has extremely small population is inferred to be in decline owing to habitat loss and degradation

#### India Biodiversity Award in the "Conservation of Wildlife Species"

- This award has been given to Bugun tribal community from Singchung village and the local Forest Department for its effort to conserve the critically endangered bird—Bugun liocichla.
- It was conferred by the National Biodiversity Authority (NBA) and presented by the Union Ministry of Environment, Forest & Climate Change in association with the United Nations Development Programme in Hyderabad.

#### Bugun

- Buguns (formerly Khowa) are one of the earliest recognized schedule tribe
- They live in the Singchung Sub-Division of West Kameng District of Arunachal Pradesh.

### 11. Marsupials

- They are mammals in which the female typically has a pouch in which it rears its young through early infancy.
- They differ from placental mammals (Placentalia) in their reproductive traits.
- They are characterized by premature birth and continued development of the newborn while attached to the nipples on the mother's lower belly.
- Early birth places the tiny newborn marsupial at greater risk, but significantly reduces the risks associated with pregnancy, as there is no need to carry a large fetus to full-term in bad seasons.
- Well-known marsupials include kangaroos, wallabies, koalas, possums, opossums, wombats, and Tasmanian devils.

#### Antechinuses

- They are small, carnivorous, shrew-like animals that primarily prey on invertebrates such as spiders, beetles (including larvae), and weevils. Some are strictly terrestrial and hunt only at ground level, while others are arboreal (tree-climbing) in nature. Most species nest communally in tree-hollows. Their primary habitats are: swamps, tropical rainforests, temperate rainforests and woodlands.
- The Brown Antechinus is endemic to eastern Australia, where it ranges from southern Queensland to southern New South Wales
- The tiny blacktailed dusky antechinus and silverheaded antechinus — discovered in 2013 and found in wetter, higher altitude regions of Queensland state — are known for suicidal mating habits that include up to 14-hour sex sessions

- They have so much sex while also trying to hang on to female mates and fighting off rivals that they produce excessive levels of testosterone.
- This stops a stress hormone from switching off, which then destroys their organs and kills them off.

### 12. Microhyla Kodial

#### Context

- The latest addition to India's frog fauna is the Mangaluru narrow-mouthed frog, which has been found in a small industrial region in coastal Karnataka.

#### Details

- It is christened Microhyla kodial after the city of Mangaluru (called kodial in the Konkani language) from where they spotted
- The greyish-brown frog is just 2 cm long.
- The Mangaluru narrow-mouthed frog is the 42nd species belonging to the genus Microhyla recorded from south Asia.
- More than 650 microhylids – or frogs belonging to the family Microhylidae – are found across the world's tropics

### 13. Natural capital in the 21st century

#### The cost of air pollution: strengthening the economic case for action Report

It is a joint study by World Bank and University of Washington

- In terms of welfare losses because of air pollution, India ranks second after China at \$505.1 billion, or 7.69% of its gross domestic product (GDP), in 2013
- India reported the highest loss in labor output in 2013 owing to air pollution globally at \$55.39 billion (2011 PPP-adjusted), or 0.84% of its GDP.
- Adding welfare costs and costs of lost labour due to air pollution puts India's GDP loss at more than 8.5% in 2013.

Air pollution kills more people than tobacco, alcohol or drug use or unsafe sex in most countries. At 10.1% of total deaths globally, air pollution ranked fourth among the leading fatal health risks after metabolic risks, dietary risks and tobacco smoke.

#### Natural capital

- It can cover entire ecosystems such as fisheries and forests, besides other hidden and overlooked services — for example, the regeneration of soil, nitrogen fixation, nutrient recycling, pollination and the overall hydrological cycle.
- Valuing such ecosystems can be challenging, with their market value often termed as zero.
- When pollution happens, it is actually a depletion of our natural capital as, for example,

- \* Acid rain damages forests and
- \* Industrial seepage affects water quality

In a modern economy, the challenge is to estimate such depreciation to natural capital.

#### GDP's exclusion of Natural Capital

- GDP computations indicate the economic activity in a country, with rising GDP growth rate often leading to international prestige.
- However, such estimates often exclude the variations in natural capital by assuming them to be constant and indestructible.
- Such natural capital is often self-generating (water, clean air) but needs to be handled in a sustainable way in order to avoid depletion.
- India having a GDP of \$2.65 trillion in nominal terms has failed to take into account the externalities of such economic growth.

#### Environmental Kuznets Curve

- It is the 'relationship between GDP per capita and the concentration of Sulphur dioxide in the local air' is an inverted U curve.
- Such a relationship leads to the postulation that people from 'developing countries can't place a weight on natural environment' and should consider pollution as an acceptable side-effect of GDP growth.

So Now many economists are pushing for an "environmental Kuznets curve"

#### Issue in its usage

- This inverted U curve is found primarily for local pollutants that lead to short-term damages (sulphur, particulates) and not for pollutants that lead to long term and dispersed costs (carbon dioxide).
- In addition, the inverted U curve hides systemic consequences of emissions.

Hence Natural Capital should be treated as a necessity.

#### Problems it could give rise to

- When economic growth leads to the destruction of forests, wetlands and woodlands for agriculture, mining or even urban expansion, it is typically the poorest of the traditional dwellers who suffer.
- Ecological collapse can soon come, examples being the Darfur region in Sudan and countries in the Horn of Africa. All were subject to rapid socio-economic decline.

#### Attempts in the Past

- In 2009, the Centre announced that it would publish a "green GDP" that would include the environmental costs of degrading and depleting our forests, grasslands and natural stock.
- An expert programme, sponsored by the Ministry of Statistics and Programme Implementation, released a Compendium of Environment Statistics 2013.

- \* The group recommended that India shift to a system of measuring comprehensive national wealth, which includes items such as human capital, capital equipment and natural capital.

- \* However, implementation of such well-founded recommendations has been constrained by the lack of micro-level data on capital formation, particularly in a natural context.

- The 12th Five Year Plan undertook groundwater resource mapping at the national level, a similar focus is essential for data on land usage, forests and mineral wealth

#### Way forward

- India should seek to publish "green GDP" figures that take into account depreciation of natural capital stock due to economic exploitation and environmental degradation.
- It can follow the template provided by the UN's System of Environmental-Economic Accounting.
- Adapting our national accounts in line with this framework will help in incorporating the value of the environment in our growth while helping us to focus on developing a feasible transition path to a green economy.

### **14. Noctiluca Algae /Sea Tinkle**

- The Noctiluca algae, commonly known as sea tinkle, is a parasite and occurs in patches or 'blooms' in the Northern Arabian Sea.
- They glow at night due bioluminescence (It is the production and emission of light by a living organism) and have earned them the nickname 'sea sparkle'.

#### Cause of concern

- These patches are a sign of decline because they compete with fish for food and choke their supply.
- Noctiluca consumes one of the most important planktonic organisms at the base of the fish-food chain, namely diatoms, and also excretes large amounts of ammonia, which is linked with massive fish mortalities.

#### Link to Climate change

- A warming ocean means greater temperature differences among layers of the sea water and this slows the upward transport of nutrients like silicate from the ocean bottom, lowering its concentration at the surface.
- Diatoms growing in surface water need both sunlight and silicate to build their glass skeletons and thus, will fail to thrive when silicate becomes less available.
- On the other hand, Noctiluca remains unaffected by these changes and additionally will prey on the remaining diatoms.
- Intensifying global-warming conditions, thus may be expected to disrupt the fish-food chain and cause a decline of fisheries in the region



### 15. Rekla Race

- Rekla races held on Kaanum Pongal day
- The race involves getting race bulls to lug makeshift carts a certain distance, the winners are given prizes

#### Context

- The People for the Ethical Treatment of Animals (PETA) India released video footage revealing alleged cruelty to bulls at two 'rekla' (bullock cart racing) events

#### Issue Area

- Racers in Tamil Nadu are electrically shocking bullocks,
- Biting their sensitive tails,
- Roughly pulled by their nose ropes
- Beating them mercilessly in order to force them to run at high speeds on hot tar roads

#### Law

- As per Section 26 of Prevention of Cruelty to Animals Act, 1960, the offender can be punished with a fine which may extend to five hundred rupees, or with imprisonment which may extend to three months, or with both

### 16. South Asian Climate Outlook Forum (SASCOF)

- South Asian nations, supported by the World Meteorological Organization (WMO), have been conducting the SASCOF since 2010.
- SASCOFs prepare consensus seasonal climate information on a regional scale that provide a consistent basis for preparing national level outlooks.

#### Details

- The forecast is helpful for India's neighbouring nations, which don't have advanced facilities to issue forecasts and make predictions.
- Countries under SASCOF — Afghanistan, Pakistan, India, Sri Lanka, Nepal, Bhutan, Myanmar and Maldives — share weather services with each other.

### 17. Thoothukudi Violence

#### Context

- The rally in which thousands of local people participated under the banner of 'Anti Sterlite Movement', turned violent with sections of protesters allegedly setting fire to vehicles including those of Police

#### Company and Manufacturing Units

- Sterlite Copper is the Indian copper-producing unit of Vedanta, Ltd., a subsidiary of Vedanta Resources, the UK-based mining and metals conglomerate.
- Vedanta specialises in mining and refining non-ferrous metals – copper, zinc and aluminium.
- It is mainly involved in mining copper in Tuticorin. The city unit includes a smelter, a refinery, a phosphoric acid plant, a copper rod plant and three captive power plants.

- The plant was set up in 1997

#### Trigger

- The protests flared after the company announced plans to expand the plant and increase production of copper from the current 4 lakh tonnes to 8 lakh tonnes annually

#### Environmental Impact

- Copper production, including mining, smelting and refining, is a hazardous industry that produces toxic byproducts like lead, arsenic and sulphur oxides that adversely impact water, soil and air quality
  - \* These effects extend to several tens of kilometres around the source.
- Environmental regulations that aim to reduce emissions require operational changes and make production more expensive and less competitive
  - \* In 2005 the company said that its Tuticorin smelter had one of the lowest costs of production of all copper smelting operations worldwide
- National Environmental Engineering Research Institute (NEERI) and the TNPCB have found evidence that Sterlite contaminated the groundwater, air and soil with its effluents and also violated standards of operation.

#### Violation of Environmental Norms

- The plant has faced legal questions right from its inception when Sterlite Industries sought and received environmental clearance from the Ministry of Environment, Forest and Climate Change for setting up of the plant that was to produce 1200 tonnes of copper every day. No public consultations were conducted despite provisions of the Environmental Impact Assessment Notification, 2006 necessitating public hearings in case of setting up of copper smelters.
- The Sterlite Copper complex within zone of sensitive marine ecosystem. This violates the conditions attached to the 'Consent to Establish' issued by the Tamil Nadu Pollution Control Board (TNPCB).
- The board also reduced the width of the mandatory green belt around Sterlite from 250 metres to 25 at Vendanta's request.
- pollutants from the factory were seeping into the ground water

#### Health Issues

- High prevalence of asthma, pharyngitis, sinusitis and other respiratory tract infections, all proxies for the presence of harmful gases and particulate irritants in the lower atmosphere.
- Headache, coughing and choking due to smoke emanating from the plant.

### 18. Trichlorofluoromethane, or CFC-11

- It is the second-most abundant ozone-depleting gas in the atmosphere and a member of the family of chemicals most responsible for the giant hole in the ozone layer that forms over Antarctica
- CFCs were once widely used in the manufacture of aerosol sprays, as blowing agents for foams and packing materials, as solvents, and as refrigerants.
- It was phased out by the Montreal Protocol in 2010.

#### What is the treaty?

- The ozone layer in the stratosphere, 10 to 40 kilometres above Earth's surface, protects life on the planet from deadly ultraviolet radiation.
- The 1987 Montreal Protocol banned industrial aerosols such as CFC's that were chemically dissolving ozone especially above Antarctica

#### Impact

- The Montreal Protocol has been effective in reducing ozone-depleting gases in the atmosphere because all countries in the world agreed to legally binding controls on the production of most human-produced gases known to destroy ozone.
- Under the treaty's requirements, nations have reported less than 500 tons of new CFC-11 production per year since 2010.
- CFC-11 concentrations have declined by 15 percent from peak levels measured in 1993 as a result.

#### Details

- Measurements from Hawaii indicate the sources of the increasing emissions are likely in eastern Asia
- However, this unexpected increase in emissions of this gas, likely from new, unreported production.

### 19. Uropeltis bhupathyi

- The snake, currently found only in the forests of the Anaikatty hills in Tamil Nadu's Coimbatore district, has been named Uropeltis bhupathyi, after the late herpetologist S. Bhupathy, for his contributions to the field.
- The reptile belongs to a family of snakes found only in peninsular India and Sri Lanka. They are non-venomous, mostly burrowing and earthworm-eating, and are called shieldtails after the large, flat tips of their tails, which make them appear almost sliced off.

### 20. Supreme Court settles the law that ivory is 'government property'

#### Context

- The Supreme Court has ruled that tusks are the property of the government

#### Background

- The court was examining the Kerala Forests Act of 1961 and the Wildlife (Protection) Act of 1972 in a case dealing with the alleged unauthorised collection and storage of elephant tusks, possession of an unlicensed gun and other accessories by an individual in Wayanad

#### Judgment

- The Supreme Court observed that there is a clear "declaration" in the 1972 Act on elephant tusks being government property.
- India prohibits import and export of ivory

#### Exceptions

- The ruling, however, would not affect individuals who have ownership certificates for declared ivory.
- Even in the case of captive elephants, either the government keeps custody of tusks or owners are permitted to retain them if they give an undertaking that they would not be traded.

#### Significance

- Conservationists campaigning to curb ivory-trafficking and poaching got a boost with the order.

### 21. Animal-free testing for drugs

#### Context

- In a step that would spare animals from suffering due to drug experiments, the Indian Pharmacopoeia Commission (IPC) has approved modern, animal-free tests for drug manufacturers

#### Details

- The IPC has replaced the pyrogen test carried out on rabbits and the abnormal toxicity test carried out on guinea pigs and mice with tests that can be done in test tubes.

#### Pyrogen Test and Abnormal Toxicity Test

- The pyrogen test is carried out to check impurity or substance that can cause adverse side-effects.
  - \* For the test, the drug is injected into a rabbit and the animal is closely observed for feverish symptoms.
- The abnormal toxicity test is carried out to check potential hazardous biological contamination in vaccine formulations.
  - \* In this, mice or guinea pigs are injected with the vaccine. The scientists observe if there is death of any animal.
  - \* This batch test is done before the product is approved for marketing

#### New mandate

- With the Indian Pharmacopoeia Commission's new mandate, the pyrogen test will be replaced by a bacterial endotoxin test or a monocyte activation test which can be carried out in test tubes.

- Vaccine manufacturers can apply for waiver for the abnormal toxicity test by getting a compliance certificate from the National Control Laboratory instead.

#### **Indian Pharmacopoeia Commission (IPC)**

- IPC is an Autonomous Institution of the Ministry of Health. IPC is created to set standards of drugs in the country.
- Its basic function is to update regularly the standards of drugs commonly required for treatment of diseases prevailing in this region.
- It publishes official documents for improving Quality of Medicines by way of adding new and updating existing monographs in the form of Indian Pharmacopoeia (IP).
- It further promotes rational use of generic medicines by publishing National Formulary of India.
- Set to become first WHO collaborating center for safety of medicines and vaccines in south east region.

## **22. Clean Ganga Mission funds Underutilized**

### **In news**

- Only about a fifth of ₹20,000 crore allotted for the National Clean Ganga Mission (NCGM) have been utilised till March 2018.
- That is roughly the same proportion of the sanctioned money utilised in 2017.

### **Details**

- About half the money, or ₹2,814 crore, had been spent on establishing sewage infrastructure.
- Only 24 of the 65 'entry-level' projects — meant for cleaning the ghats and establishing new ones and cleaning the river front and the river surface — had been completed.
- About 12,000 MLD of sewage is emptied into the Ganga across 11 States, from Uttarakhand to West Bengal.
- At present, the capacity for sewage treatment is just 4,000 MLD; of this, 1,000 MLD is functional.

### **Facts**

- Coursing 2,500 km, the Ganga is the longest river within India's borders.
- Its basin constitutes 26% of the country's land mass (8,61,404 sq. km.) and supports 43% of its population.
- Even as the basin spreads across 11 States, five States are located along the river's main stem: Uttarakhand, Uttar Pradesh, Jharkhand, Bihar and West Bengal.

### **Issue Area**

- Much of the river's pollution load — chemical effluents, sewage, dead bodies, and excreta — comes from these States.

- Though the industrial pollution, volume-wise, accounts for about 20%, its toxic and non-biodegradable nature has a disproportionate impact.
- The industrial pollutants largely emanate from tanneries in Kanpur and distilleries, paper mills and sugar mills in the Kosi, Ramganga and Kali river catchments.
- The municipal sewage, at a billion litres a day, accounts for 80% of the pollution load.

## **23. Dirty socks, algae behind Taj Mahal discolouration**

### **In news**

- Unwashed socks worn by visitors and rampant algae seem to turn the Taj Mahal from its natural white to yellow, brown and green, the Archaeological Survey of India (ASI) said to Supreme Court
- It was not possible to distribute socks to all visitors. Many went wearing their own socks

### **SC**

- Not convinced with argument it asked the ASI how algae managed to reach the top parts of the mausoleum where patches of discoloration were seen.
- The court said the problem was not with algae but the fact that the ASI was unwilling to accept that they were not doing enough to conserve the monument.

### **Natural Causes**

- The Taj Mahal is, after all, a 360-year-old monument, so some discoloring is to be expected.
- Marble does not exist in a pure form, so the marble in the Taj Mahal is full of minerals which become oxidized over time. Oxidization leads to the browning of these minerals, resulting in brown splotches on the beautiful mausoleum.
- Rain also adversely affects the monument, slowly weathering it down, leading to chipping and cracking.
- Iron dovels were installed to repair the marble slabs on the building. The iron in these dovels naturally became rusted, and a new layer of this rust was then deposited onto the marble of the Taj.

### **Environmental Neglect**

- Trees have been felled left, right and center in and around Agra as the price for 'modern development'.
- Agra lies in a semi-arid zone, and the temperatures can reach 50 degrees Celsius. Without the natural obstruction of trees, the heat waves that regularly plague the plains of North India are free to wreak havoc on whatever stands in their way.
- Burning municipal waste, cow dung and other forms of waste releases particulate matter into the sky. Agra and its neighboring areas have a high rate of particulate matter for this very reason.

**"explosive breeding" of the pests**

- The dumping of waste in the Yamuna led to the stagnation of the river and the consequent "explosive breeding" of the insect, which is a "biological indicator of water quality and localised water pollution."
- An invasion of the insect called Chironomus Calligraphus (Geoldichironomus) is turning the Taj Mahal green
- Yamuna has become so stagnant that fish that earlier kept insect populations in check are dying. This allows pests to proliferate in the river
- The stains the bugs leave on the marble are washable and workers from the Archaeological Survey of India (ASI) have been trying to scrub the walls clean, but frequent scrubbing can take the sheen off the marble.

**24. New Technique to reduce Pollution**

- Scientists have developed a flexible, 3D porous material that mimics the shape of a honeycomb and could help filtering air to remove pollutants or viruses.
- Both the lattice of a honeycomb and the symmetry of a diatom are complex living structures comprising patterns and shapes that have long provided inspiration for scientists.
- One recent application is to develop artificial hierarchical porous materials that are stable, yet have a large surface area and the ability to selectively extract materials.
- It has been difficult however to build these structures at the nano scale due to their complexity and pattern repeatability across scales from the individual compartments to the whole structure.
- A team from King Abdullah University of Science and Technology (KAUST) in Saudi Arabia has proposed a simple method that, in just five minutes, can produce a flexible film with a complex hierarchical structure that has repeating patterns of interconnected, regularly shaped pores.
- By using this method we create an important platform to design artificial porous materials that replicate highly ordered porous and complex systems mimicking nature. These have potential use for separations, such as virus filtration, and for biological scaffolds, such as those used for bone regeneration

**25. NASA Satellites Reveal Major Shifts in Global Freshwater**

- In a first-of-its-kind study, scientists have combined an array of NASA satellite observations of Earth with data on human activities to map locations where freshwater is changing around the globe
- The study finds that Earth's wet land areas are getting wetter and dry areas are getting drier due to a variety of factors, including human water management, climate change and natural cycles.

**India**

- India is among the hotspots where overuse of water resources has caused a sharp decline in the availability of freshwater
- Areas in northern and eastern India, West Asia, California and Australia are among the hotspots where overuse of water resources has caused a serious decline in the availability of freshwater,
- In northern India, groundwater extraction for irrigation of wheat and rice crops has led to depletion, despite rainfall being normal throughout the period studied
- The fact that extractions already exceed recharge during normal precipitation does not bode well for the availability of groundwater during future droughts

The team used 14 years of observations from the Gravity Recovery and Climate Experiment (GRACE) spacecraft mission

**Gravity Recovery and Climate Experiment (GRACE)**

- It was a joint mission of NASA and the German Aerospace Center.
- By measuring gravity anomalies, GRACE showed how mass is distributed around the planet and how it varies over time.
- Data from the GRACE satellites are an important tool for studying Earth's ocean, geology, and climate.

**26. 34 leopards die each year in Rajasthan, says wildlife report****Context**

- There is an alarming average of 34 leopard deaths every year in Rajasthan with as many as 238 big cats have died in the desert state from January 2012 to May 21, 2018.
- According to 2015 wildlife census, there are 434 leopards in the state

**Law**

- Leopard is an endangered animal under schedule one of the Wildlife Protection Act, 1972.
- They are at par with tigers under Schedule 1 of the Wildlife Protection Act (WPA), 1972

**challenges**

- Availability of prey base
  - \* it is the depletion of natural prey base in forest areas that had led to the shifting of wild animals towards killing of livestock.
- Man-animal conflicts
  - \* Around 20 leopards have been killed between 2014 and 2016 in accidents or by humans when they strayed into human habitations or agricultural fields.
- Road/train accidents.



**Project Leopard**

- Project aimed at mitigating human-leopard conflicts and conserving the leopard population.

# HEALTH ISSUES

## 1. Chikungunya

- It is an infectious viral disease which is transmitted to humans by mosquitoes infected with the virus

### Piperazine

- Researchers at the Indian Institute of Technology (IIT) in Roorkee -working to develop a cure for Chikungunya -have discovered the anti-viral properties of the drug piperazine, and determined the mechanism to combat the disease.
- Piperazine is a drug commonly used in deworming treatments against roundworm and pinworm.
- Using X-ray crystallographic technique, in combination with computational biology and fluorescence techniques, the researchers found that piperazine binds itself well with the hydrophobic pocket on the alphavirus capsid protein.
- This pocket is the key to the replication of the virus and its spread inside a host.
- This inhibition of this pocket prevents budding and spread of the virus and can help in treating the virus effectively using existing drugs

## 2. Chordoma

- It is a rare type of cancer that occurs in the bones of the skull base and spine.
- A chordoma tumor usually grows slowly and is often asymptomatic for years.
- Chordoma is extremely rare. It affects only one in one million people each year.

### Trans Oral Robotic Surgery (TORS)

- It is a modern surgical technique used to treat tumors of the mouth and throat via direct access through the mouth using the assistance of a surgical robot

## 3. Lassa Fever

- It is an acute viral haemorrhagic illness caused by Lassa virus, a member of the arenavirus family of viruses.
- The disease is usually initially spread to people via contact with the urine or feces of an infected multimammate rat
- The disease is endemic in the rodent population in parts of West Africa.

### Symptoms

- Starting with fever, general weakness, and malaise. After a few days, headache, sore throat, muscle pain, chest pain, nausea, vomiting, diarrhoea, cough, and abdominal pain may follow.

- In severe cases facial swelling, fluid in the lung cavity, bleeding from the mouth, nose, vagina or gastrointestinal tract and low blood pressure may develop.

### Prevention

- There is no vaccine
- Prevention requires isolating those who are infected and decreasing contact with the rats
- Other efforts to control the spread of disease include having a cat to hunt vermin, and storing food in sealed containers

## 4. Leptospirosis

- Leptospirosis is an infection caused by corkscrew-shaped bacteria called Leptospira.
- symptoms can range from none to mild such as headaches, muscle pains, and fevers; to severe with bleeding from the lungs or meningitis.
- If the infection causes the person to turn yellow, have kidney failure and bleeding, it is then known as Weil's disease
- If it also causes bleeding into the lungs then it is known as severe pulmonary hemorrhage syndrome

## 5. 'Nidaan' Software

### Context

- A new software, 'Nidaan', has been launched in Rajasthan for presumptive diagnosis and monitoring of seasonal and non-communicable diseases as well as the trends of ailments found in specific areas.

### Details

- "Nidaan" will facilitate online entries of as many as 46 diseases and healthcare services available for their treatment in different institutions.
- The availability of quality healthcare services is the primary objective of this exercise

### Significance

- It is expected to help in formulation of specific action plans for control of diseases.
- This would help strengthen tele-medicine services in the government hospitals.

## 6. 'Nipah' virus (NiV)

- Nipah Virus is an emerging infectious disease that broke out in Malaysia and Singapore in 1998 and 1999. It first appeared in domestic pigs and has been found among several species of domestic animals including dogs, cats, goats, horses and sheep. The infection is also known to affect human beings.

- The organism which causes Nipah Virus encephalitis is an RNA or Ribonucleic acid virus of the family Paramyxoviridae, genus Henipavirus, and is closely related to Hendra virus.
- Nipah virus infection gets its name from the village in Malaysia where the person from whom the virus was first isolated succumbed to the disease.
- The virus has been listed in the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code and must be reported to the OIE (OIE Terrestrial Animal Health Code).

#### How does Nipah spread or gets transmitted?

- The disease spreads through fruit bats or 'flying foxes' of the genus Pteropus, who are natural reservoir hosts of the Nipah and Hendra viruses.
- The virus is present in bat urine and potentially, bat faeces, saliva, and birthing fluids. Presumably, the first incidence of Nipah virus infection occurred when pigs in Malaysian farms came in contact with the bats who had lost their habitats due to deforestation.
- Furthermore, transmission between farms may be due to fomites – or carrying the virus on clothing, equipment, boots, vehicles.

#### Symptoms of the Nipah infection

- Typically, the human infection presents as an encephalitic syndrome marked by fever, headache, drowsiness, disorientation, mental confusion, coma, and potentially death.
- During the outbreak in Malaysia, up to 50 per cent of clinically apparent human cases died.
- There is no specific treatment for Nipah Virus. The primary treatment for human cases is intensive supportive care.

#### **Habitat loss may have triggered Nipah outbreak**

- According to a report by the World Health Organization, there is "strong evidence" that the emergence of bat-related viral infections can be attributed to the loss of the animal's natural habitats.
- As the flying fox [fruit bat] habitat is destroyed by human activity, the bats get stressed and hungry, their immune system gets weaker, their virus load goes up and a lot of virus spills out in their urine and saliva

#### Environmental stress

- In the case of the Hendra virus — the Nipah equivalent in Australia — scientists found that when fruit bats are stressed (through habitat fragmentation, habitat reduction and physiological stress), the percentage of bats infected with the virus increases drastically, increasing the likelihood of passing it to humans through horses.
- According to a study in Malaysia, rapid urbanization of bat-rich rainforests contributed to the emergence of Nipah virus there: the regions most adversely affected were those that suffered from maximum deforestation

- Forest fragmentation and hunting bats for food also bring them closer to humans and is often an important cause of disease transmission

#### Can bat culling help?

- Culling bat populations may seem like an easy solution — and has been tried in Australia — but studies warn that instead of reducing the outbreak of such zoonotic diseases, it could cause even more damage, chiefly ecological.
- about a quarter of the more than 1,300 bat species seen worldwide feed on fruit and nectar and are crucial pollinators (of fruit trees, including mango, guava and banana), helping maintain genetic diversity in agricultural systems.
- They are also important seed dispersers; other bat species help bring rodent and insect numbers under control.

#### **7. Nocebo effect**

- This refers to the phenomenon wherein a patient undergoing medical treatment may suffer from negative side effects purely due to her own negative expectations.
- This is in contrast to the placebo effect where a patient enjoys better health due to positive expectations regarding her treatment.
- Negative psychological expectations are believed to cause physiological changes in a patient's body, leading to negative health effects.
- Scientists have found that patients who were warned about negative side effects of a certain medicine actually suffered these side effects even though they were only served harmless fake pills

#### **8. Thalasseмииs**

- Thalassaemia is an inherited blood disorder characterised by less oxygen-carrying protein (haemoglobin) and fewer red blood cells in the body than normal.
- Symptoms include fatigue, weakness, paleness and slow growth.
- Thalasseмииs are genetic disorders inherited from a person's parents

#### India

- India has the highest number of thalassaemia majors and carriers (or those who are asymptomatic).
- It is estimated that there are more than 100,000 thalassaemia majors in the country or an average prevalence rate of 3-4% carriers in the general population.
- Each year, there are 10,000 children born with thalassaemia major.

### The two types of thalassaemia are alpha thalassaemia and beta thalassaemia

- In alpha thalassaemia, having one faulty gene will cause little or no effect to a person.
  - \* Two faulty genes are associated with mild anaemia.
  - \* Three mutated genes result in haemoglobin H disease that needs regular blood transfusions to treat chronic anaemia.
  - \* Unborn babies with four faulty genes are unlikely to survive pregnancy.
- Beta thalassaemia also has different forms: .
  - \* Beta Thalassaemia Major, also called BTM, requires lifelong regular blood transfusions.
  - \* Beta Thalassaemia Intermedia is also known as BTI or non-transfusion dependent thalassaemia or NTD. This is a milder form of the condition and the severity will differ between individuals, from mild anaemia to the need for regular blood transfusions.

### Issues

- patients require lifelong blood transfusion, iron chelation therapies and other treatment
- There is still no cure other than a bone marrow transplant.
- As this has to be done in early childhood, it is not a workable cure as yet for adults.
- Thalassaemia causes a significant economic burden on the country due to rising health care and drug expenses.
- Given the genetic nature of the disease, it is in India's best interests to focus on prevention and a cure.

### Research

- A biotechnology company in the U.S., Bluebird Bio, has been conducting clinical studies to investigate the potential for LentiGlobin gene therapy as a final cure for transfusion-dependent  $\beta$ -thalassaemia (TDT).
- In April 2018, the company announced positive results in clinical studies that used this gene therapy. Here, the 22 study patients did not need blood transfusions.

### Cost is a barrier

- The development has raised the hopes of patients and families, the biggest obstacle is its cost. Most patients in India cannot pay for such expensive treatments in the absence of any government support and the complete lack of medical insurance for genetic disorders.

### Various Initiatives

- The Department of Biotechnology (DBT) has constituted a task force ("Stem Cell Research and Regenerative Medicine") to encourage translational research

- On the regulatory front, there are clear guidelines for "Stem Cell Research and Therapy" that have been formulated jointly by the DBT and the Indian Council of Medical Research.
- The new Drugs and Clinical trials Rules, 2018 encourage and motivate clinical research for orphan diseases

### Way forward

- India has no dearth of talented and ethical medical researchers and doctors who can engage in gene therapy research. So, the government, medical research institutes and hospitals need to start developing low-cost gene therapies for thalassaemia.

## 9. Vitamin D /Sunshine Vitamin

- Vitamin D is formed in our skin under the influence of ultra-violet B (UVB) rays that are found in sunlight.

### Stats

- About 70% of urban Indians are deficient in this vitamin.

### Importance

- Vitamin D controls the absorption of calcium which is essential for the growth and maintenance of bones and muscles.
- Its deficiency affects both children and adults, especially among populations that are starved of sun exposure, causing bone diseases such as rickets in children, and osteomalacia and osteoporosis in adults.
- In addition, low vitamin D has been found to be associated with conditions such as asthma, infections, auto-immune disorders, depression and even cancer.

### Issue Area

- Dietary sources of the vitamin are fatty fish such as salmon and tuna. However, Indians rarely consume these fish
- Indians rarely consume these fish, and typically demonstrate 'sun-fleeing behaviour', especially in the urban areas, in order to avoid the heat and skin darkening
- Atmospheric pollution too makes it difficult for UV rays to reach the earth's surface which further aggravates the problem

### Overcoming vitamin D deficiency

- There is a need for awareness about the need for sunlight exposure between 11 a.m. and 3 p.m. However, it is often impractical to implement this for the typical, office-going urban Indian; atmospheric pollution is also a barrier.
- Food fortification or enrichment is the process of adding micronutrients (essential trace elements and vitamins) to food.
- In the United States, fortification of milk with vitamin D was started as far back as 1933 which reduced the prevalence of several types of bone disease dramatically



**Steps taken by Govt**

- Recognising the benefits of fortification, the Food Safety and Standards Authority of India, in late 2016, set standards and safety guidelines for fortifying milk and edible oil with vitamins D and A.
- States such as Himachal Pradesh, Gujarat, Rajasthan, Madhya Pradesh and parts of Haryana have already introduced fortified edible oil in the public distribution system and mid-day meal programmes
- well-known dairy chains in India have also initiated the fortification of milk.

**Way forward**

- Raising awareness about the benefits of vitamin D fortified food in building better bones is an important component of these efforts.
- India already has an impressive record with iodine-fortified salt, which has virtually eradicated goitre and cretinism. In a similar effort to promote widespread use of vitamin D fortified milk and edible oil can result in a marked reduction in the prevalence of vitamin D deficiency across India.

**10. WHO launches 'REPLACE' to eliminate trans-fat in foods****Context**

- The World Health Organization (WHO) has launched a comprehensive plan to eliminate industrially-produced artificial trans fats from the global food supply by 2023.

**Source**

- Industrially-produced trans fats are contained in hardened vegetable fats such as margarine and ghee, and are often present in snack, baked, and fried foods.
- Manufacturers often use them as they have a longer shelf life than other fats.

**Stats**

- The WHO recommends that every country, including India, eliminate transfat by reducing the allowable level to less than 2% in fats, oils, and all food.
- Cardiovascular disease is the leading cause of deaths globally, accounting for one in every three deaths.
- Artificial trans-fat raises bad cholesterol and lowers good cholesterol and is estimated to kill 540,000 people a year around the world.
- trans fat kills more than 60,000 people a year in India.
- Elimination of trans fats is key to protecting health and saving lives

**REPLACE provides six strategic actions to ensure the prompt, complete, and sustained elimination of industrially-produced trans fats from the food supply**

REPLACE, which is an acronym for Review, Promote, Legislate, Assess, Create and Enforce, is the first global initiative to eliminate a risk factor for cardiovascular disease.

- REview dietary sources of industrially-produced trans fats and the landscape for required policy change.
- Promote the replacement of industrially-produced trans fats with healthier fats and oils.
- Legislate or enact regulatory actions to eliminate industrially-produced trans fats.
- Assess and monitor trans fats content in the food supply and changes in trans-fat consumption in the population.
- Create awareness of the negative health impact of trans fats among policy makers, producers, suppliers, and the public.
- Enforce compliance of policies and regulations.

**International Experience**

- In Denmark, the first country to mandate restrictions on industrially-produced trans fats, the trans-fat content of food products declined dramatically and cardiovascular disease deaths declined more quickly
- New York city eliminated industrially-produced trans-fat a decade ago, following Denmark's lead
- Countries such as Canada and Argentina when they controlled transfat have provided technical assistance and funding to national industries to help them replace transfat with healthier oils.

**11. India rejects U.S. request on medical device price caps****Context**

- India has told the United States it won't abstain from capping prices for more medical devices, regardless of pressure to rethink its stance after price controls on heart stents and knee implants spoiled the market for some US firms,

**Why has it raised the issue?**

- India's \$5 billion medical device market has provided rich fishing grounds for U.S.-based companies like Abbott Laboratories and Boston Scientific Corp, but the prospect of price caps being extended to more products sent shivers
- The medical device manufacturers argue that India's price control mechanism hurts innovation, profits and future investment, and the USTR described India's policy as "very troubling"

**Actions taken by Govt**

- Equating high trade margins on some medical devices with "illegal profiteering", the government last year capped prices of some high-end heart stents - small wire-mesh structures used to treat blocked arteries - at around \$450, compared to \$3,000 charged earlier.
- India's drug pricing authority is also pushing to bring three more devices used while treating heart ailments under the ambit of price controls as they are sometimes more expensive than the stent itself
- National Pharmaceutical Pricing Authority (NPPA) has been pushing for more price controls

- NPPA described the prices charged for these products as “exorbitant”, and said companies involved in bringing them to the market were enjoying high trade margins.

#### Generalized System of Preferences (GSP)

- It is a preferential tariff system extended by developed countries (also known as preference giving countries or donor countries) to developing countries (also known as preference receiving countries or beneficiary countries).
- It involves reduced MFN Tariffs or duty-free entry of eligible products exported by beneficiary countries to the markets of donor countries
- The USTR is currently reviewing India's eligibility under its Generalized System of Preferences (GSP), a programme that allows duty-free imports of certain goods.
- India was the largest GSP beneficiary at \$5.6 billion, the USTR said in April.

#### BENEFITS OF GSP

- This tariff preference helps new exporters to penetrate a market and established exporters to increase their market share and to improve upon the profit margins, in the donor country.

#### Issue Area

- Preference for stenting even in cases when it is not the best treatment.
  - \* With cheaper stents and a fall in procedure costs, many more patients are opting for angioplasty. Several studies across the globe have shown that in patients with multiple blocks in all three vessels, open heart surgery is a better procedure than the use of multiple stents.
- Ultimately, lack of indigenous research and development will make the country dependent on imported stents. But that is not all.
  - \* As future generation stents come into clinical use, multinational companies may choose not to release their latest products in India because of the country's price control regime
- Medical tourism also will be hit as it will become apparent that Indian hospitals do not have the latest generation stents. With time, paradoxically, patients who were the intended benefactors of this price control measure may actually turn out to be losers.

#### Way forward

- The best long-term solution is to encourage and support Indian stent manufacturers and medical device research so that we do not need to depend on imported stents.
- All aspects involving medical device development (clinical research, animal testing, human trials) must be fast-tracked and should be as transparent as possible. There must be a system to make sure that the latest medical devices, including stents, are priced differently.

## 12. Eat less saturated, trans fats to curb heart disease:

### WHO

#### Context

- The World Health Organisation (WHO) has recommended that adults and children should consume a maximum of 10% of their daily calorie intake in the form of saturated fat (found in meat and butter) and 1% in trans fats.
- Dietary saturated fatty acids and trans-fatty acids are of particular concern as high levels of intake are correlated with increased risk of CVDs

#### Saturated fatty acids and Trans-fatty acids

- Saturated fatty acids are found in foods from animal sources such as butter, milk, meat, salmon, and egg yolks, and some plant-derived products such as chocolate and cocoa butter, coconut, palm and palm kernel oils.
- Trans-fatty acids can be industrially produced by the partial hydrogenation of vegetable and fish oils, but they also occur naturally in meat and dairy products from ruminant animals (for example, cattle, sheep, goats and camels).
- Industrially-produced trans-fatty acids can be found in baked and fried foods (doughnuts, cookies, crackers, pies, etc.), pre-packaged snacks and food, and in partially hydrogenated cooking oils and fats that are often used at home, in restaurants, or by the informal sector, such as street vendors of food.

#### Stats

- They are aimed at controlling non-communicable diseases (NCDs), which are responsible for an estimated 39.5 million deaths (72%) of the 54.7 million deaths worldwide in 2016.

# ART AND CULTURE

## 1. Aranmula's snakeboats

- The famous Aranmula snakeboat regatta in Kerala will not be a competitive race in the Pampa river waters at this year's Onam festival, and will instead return to its roots as a spectacle of colour and song.
- Palliyoda Seva Sanghom (PSS), which conducts the show, has decided to do away with the race format during the Uthattadhi Vallamkali in August.

### Aranmula Vallamkali

- The Aranmula Vallamkali has strong moorings in the traditions of the centuries-old Sree Parthasarathy temple at Aranmula, regarded as one of the 101 Vaishnava Tirupatis.
- The Vallamkali marks the anniversary of the idol installation at the Aranmula temple, with the participation of about 50 units called Palliyoda Karayogams in and around Aranmula, which have their own snakeboats (Palliyodams). The oarsmen consider it a holy mission to take part, and the boats are treated as those of the deity.
- The race was not part of Aranmula Vallamkali earlier, and the high-crested boats that take part are distinct from those used in races elsewhere in Kerala.
- They are meant to be paddled, in tune with the rhythmic Vanchippattu, which are verses in praise of Lord Krishna. The dhoti-and-shawl dress code of the oarsmen is also a special feature.

### Issues with Racing

- When racing entered the scene, it was seen as robbing the regatta of its charm. Some of the participants were recruited from Kuttanad, which has a major boat race, and the traditional paddling style was overtaken by sport. Besides putting off those looking for spectacle, it led to disputes among teams.
- The Mannam Trophy will thus go to the snakeboat that is adjudged the best in terms of paddling style, discipline, costume of the oarsmen, and Vanchippattu singing

## 2. Central Institute of Higher Tibetan Studies (CIHTS)

- CIHTS is a centrally funded institute that was started in 1967 following a discussion between Dalai Lama and Prime Minister Jawaharlal Nehru in the early 1960s.
- This was later turned into an autonomous body under the Ministry of Culture.
- Though the Central Tibetan Administration, the authority of the Tibetans in exile has several programmes for cultural preservation, CIHTS is unique as it is a unique institution in India.

### Context

- Prime Minister Narendra Modi honoured institute of Tibetan studies as part of celebrations to mark Buddha Purnima

## 3. Tholu Bommalata

- It is the shadow puppet theatre tradition of the state of Andhra Pradesh
- It literally means "the dance of leather puppets" (tholu – leather and bommalata – puppet dance)
- They perform all night and usually reenact various stories from Hindu epics such as the Ramayana and Mahabharata.
- The musical instruments consists of a harmonium, a portable keyboard organ that sometimes serves only as a drone; a long, two-headed South Indian drum with tapering ends (mrudangam); strings of bells worn on the ankles

### Other states

- Ravanachhaya in Odisha
  - \* Odisha is perhaps the country's only State where four forms of puppetry thrive
- Togalu Gombeyaata in Karnataka

### Puppetry has been successfully

- Used to motivate emotionally and physically handicapped students to develop their mental and physical faculties.
- Awareness programmes about the conservation of the natural and cultural environment have also proved to be useful.
- These programmes aim at sensitizing the students to the beauty in word, sound, form, color and movement and be inquisitive. Promotion through dairy milk silk ad.
- The aesthetic satisfaction derived from making of puppets and communicating through them helps in the all-round development of the personality of the child.

## 4. Prehistoric Rock Paintings in Pandavulagutta

- Pandavulagutta is home to painted rock shelters dating to 10000 BC-8000 BC, an 8th century inscription of the Rashtrakuta period, and painted frescoes from the 12th century Kakatiya empire.
- The pre-historic rock paintings resemble those at Bhimbetka in Madhya Pradesh, with flora, fauna and human figures seen in red ochre.
- These paintings trace the evolution of human knowledge

- They are prey to confessions of undying love and names etched for posterity.

**Issues**

- Increasing defacement
- instances of scraped graffiti and smeared oil paints
- They have been damaged because they are easily accessible to the public
- they have not been protected or preserved since their discovery in 1990.

**What should be done?**

- The State government should install railings to protect and preserve the paintings

# MISCELLANEOUS NEWS

## 1. AMU-Jinnah portrait row.

### Context

- The Jinnah portrait issue was reportedly raked by Member of Parliament (MP) Satish Gautam, in a letter to the Aligarh Muslim University vice-chairman, asked to explain why it displays a portrait of Muhammad Ali Jinnah.

### AMU Students opinion

- The Aligarh Muslim University students were, however, reportedly not in favor of removing Jinnah's portrait saying its part of the university's history as he was given a life membership of the university's union
- It was put up long before Indian and Pakistani histories were bifurcated. To erase this past is regressive.

### Clash of ideologies

- The right-wing organisation Hindu Yuva Vahini (HYV), barged into the varsity, shouting slogans against the hanging of Jinnah's portrait and briefly clashed with Aligarh Muslim University students
- The clashes reportedly injured 41 people, including 28 students and 13 policemen.

### Background

- The Aligarh Muslim University was founded in 1875 by Sir Syed Ahmed Khan as the Mohammedan Anglo-Oriental College.
- Sir Syed Ahmad Khan, was an Indian Muslim pragmatist, Islamic reformist, philosopher of nineteenth century British India and the Father of Two Nation Theory
- Syed Ahmad entered the service of East India Company and went on to become a judge at a Small Causes Court
- Believing that the future of Muslims was threatened by the rigidity of their orthodox outlook, Sir Syed began promoting Western-style scientific education by founding modern schools and journals and organising Muslim entrepreneurs.
- He strongly influenced other Muslim leaders including Allama Iqbal and Jinnah. His advocacy of Islam's rationalist (Mu'tazila) tradition, and at broader, radical reinterpretation of the Quran to make it compatible with science and modernity, continues to influence the global Islamic reformation
- Aligarh Muslim University celebrated his 200th birth centenary with much enthusiasm in 2017.

### Jinnah's role in Partition

- It is true that Jinnah alone was not responsible for Partition.

- The Congress leadership made major mistakes in dealing with Muslim demands, and Hindu nationalists, both within and outside the Congress, exacerbated the Muslim elite's sense of insecurity
- But in the final analysis, Jinnah's and the Muslim League's culpability was greater than that of any other leader or party.

### Distortion of Facts for personal Pride

- In 1940, the Jinnah-led All India Muslim League renounced the primary goal for which it was founded.
- Instead, Jinnah authored the two-nation theory that, contrary to historical evidence, asserted that Hindus and Muslims formed two distinct nations that could never live together.
- The demand for Pakistan was a clear abandonment on the part of the Muslim League of responsibility for the protection of Muslim interests in the minority provinces, which had been its reason of being.
- Jinnah was responsible for this distortion of the party's objective. Jinnah, who prided himself on being the spokesman of all the Muslims of India, advocated the establishment of a separate Muslim state composed of those areas — the Muslim majority provinces — where Muslims did not need protection.
- This was the most illogical strategy if Jinnah and the Muslim League really had the interests of all Indian Muslims at heart.

It is an insult to Indian Muslims that the portrait of a person who sacrificed their interests on the basis of a spurious theory that suited his ambitions should be displayed at a university that prides itself as Indian Muslims' premier educational institution.

## 2. Mekunu

- It has built in southwest Arabian sea.
- Mekunu is a Maldivian name since it is located to the west Lakshadweep Islands and northwest of Maldives.
- This cyclonic storm has moved away from the Indian coast, no adverse weather is expected along and off west coast of India and Lakshadweep
- Weather department has advised fishermen not to venture into westcentral and southwest Arabian Sea

## 3. SamagraShiksha

- 'SamagraShiksha' is the scheme of The Union Ministry for Human Resource Development.
- It is an integrated Scheme for school education extending support to States from pre-school to senior secondary levels for the first time.



- The Scheme is a paradigm shift in the conceptual design of school education by treating 'school' holistically as a continuum from pre-school, primary, upper primary, secondary and senior secondary levels.
- It is a landmark step and completely overhauled the existing Schemes in School Education to treat schooling as a smooth transition from pre-school, primary, upper primary, secondary and senior secondary level.
- It focuses on improving quality of education at all levels by integrating the two T's – Teachers and Technology.
- The budget outlay on the new scheme will be now Rs. 34,000 crore in 2018-19 and to Rs. 41,000 crore in 2019-20 i.e. an increase of 20% which shows Central Government's commitment for Education.

#### 4. **AP names new state symbols**

- Neem, which has medicinal properties besides being considered auspicious, is named after the state tree.
- Blackbuck (Krishna Jinka) is declared as the state animal
- Jasmine is the state flower.
- Rose-ringed parakeet is the state bird.

#### 5. **World's second oldest rock is from Odisha**

##### In news

- A rock sample recovered nearly eight years ago from Champua in Odisha's Kendujhar district has put India at the forefront of geological research in the world

##### Previous Instance

- The only instance of zircon older than this discovery was the one found in Jack Hill, Western Australia, which was 4,400 million years old and is the oldest known rock sample.
- But the zircon in this case was from metamorphosed sedimentary rock, unlike the Singhbhum one, which was formed from magma.

##### Challenges

- The isotopic analysis was a big challenge.
- The machine used is called Sensitive High-Resolution Ion Microprobe (SHRIMP) was not available in India.
- Then China's scientist helped in analysis on a collaboration basis

##### Result

- The analyses confirmed the presence of two zircon grains that were 4,240 million and 4,030 million years old.

##### Significance

- Scientists have found in the rock a grain of magmatic zircon (a mineral that contains traces of radioactive isotopes) that is an estimated 4,240 million years old

- This will help to study the earth's early years.
- Their study will add valuable information about the presence of water in the first few hundred million years of the Earth's history. It will also give us clues to when plate tectonics began

#### 6. **Over 100 killed in dust storm in U.P., Rajasthan**

- Over 100 people were killed and around 180 injured after a high-velocity dust storm followed by thunder showers wreaked havoc in parts of Uttar Pradesh and Rajasthan, leaving behind a trail of destruction.
- Expressing sorrow at the loss of lives, Prime Minister Narendra Modi directed officials to coordinate with the States to ensure speedy relief and rehabilitation of those affected.
- In Uttar Pradesh, at least 70 people were killed and 83 injured, with Agra accounting for the maximum casualties — 43. Three persons each died in Bijnore and Kanpur Dehat, and two each in Saharanpur, Hamirpur, Kanpur Nagar and Mirzapur districts.
- One casualty each was reported from Bareilly, Pilibhit, Chitrakoot, Raebareli, Unnao, Mathura, Amroha, Kannauj, Banda, Kanpur, Sitapur, Sambhal, Etawah, Allahabad and Rampur.
- In Rajasthan, 16 people died in Bharatpur district, 10 in Dholpur and five in Alwar, while over 100 were injured in the storm that hit the region.

##### Another storm likely

- The Meteorological Department has issued warnings that another dust storm may hit parts of Uttar Pradesh and Rajasthan in the next 48 hours due to the cyclonic circulation formation in the region.

##### On high alert

- Uttar Pradesh Chief Minister Yogi Adityanath has issued an advisory ordering all district magistrates to be on high alert. He has asked the district officials to calculate the losses and provide compensation to those affected, a government spokesperson said.

##### Cyclonic circulation in Haryana could have set off dust storms

- A cyclonic circulation over Haryana was the trigger for the deadly dust storm that swept parts of Rajasthan and Uttar Pradesh, weather experts said on Thursday, estimating that the wind speed during the storm might have gone up to 100 kms per hour.
- The winds were so violent that a number of houses collapsed and electricity poles and trees got uprooted, as the severe dust storm swept parts of these states. The phenomenon was restricted to these two states, largely because of external and domestic reasons, experts said.

- There were primarily four reasons that lead to the thunderstorm -- excessive heating, availability of moisture, instability in atmosphere and a trigger for the storm, India Meteorological Department (IMD) Additional Director General Mritunjay Mohapatra said

Dual sources

- The northern plains have been witnessing temperatures of over 40 degree Celsius. There were two sources of moisture — a western disturbance over north Pakistan and adjoining Jammu and Kashmir and easterly winds from the Bay of Bengal. The cold winds from the western disturbance was making atmosphere unstable.
- The trigger was a cyclonic circulation over Haryana. This led to the formation of two cloud patches. One patch moved to north of Delhi, while another patch moved over the Alwar, Agra, and Dholpur belt, which was more deadly.
- Mohapatra said it was difficult to record the wind speed as the phenomenon was restricted to only small patches. In the National Capital Region, where a milder version of the dust storm and thunderstorm struck, the wind speed was recorded as 69 kmph by the IMD.

## PRACTICE QUESTIONS

### 1. Consider the following statements about GOBAR-DHAN Scheme:

1. The Ministry of Drinking Water & Sanitation has launched GOBAR (Galvanizing Organic Bio-Agro Resources) – DHAN scheme at National Dairy Research Institute (NDRI) Karnal.
2. It was launched under Swachh Bharat Mission (Gramin).

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

### 2. Consider the following statements about GOBAR-DHAN Scheme:

1. The scheme focuses on managing and converting cattle dung and solid waste in farms to useful compost, biogas and bio-CNG.
2. The scheme envisages implementation of 700 bio-gas units in different states of the country in 2018-19

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

### 3. Consider the following statements about Neemrana Dialogue:

1. The bilateral dialogue between India-Pakistan gets its name from the Neemrana Fort, where it was first held in 1991-1992.
2. Neemrana is also a non-governmental dialogue.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

### 4. Consider the following statements about Saubhagya Scheme:

1. Pradhan Mantri Sahaj Bijli Har Ghar Yojana –“Saubhagya” is a scheme to ensure electrification of all willing households in the country in rural areas..
2. The beneficiaries for free electricity connections would be identified using Socio Economic and Caste Census (SECC) 2011 data.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

### 5. Consider the following statements about Pravasi Bharatiya Divas:

1. Pravasi Bharatiya Divas is celebrated every year in India on 9 January.
2. The day is celebrated to mark contribution of overseas Indian community to the development of India.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

### 6. Consider the following statements about Medical Council of India (MCI):

1. It is a statutory body.
2. Establishment and maintenance of uniform standards for undergraduate medical education is one of the functions of MCI.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**7. Consider the following statements about Noctiluca algae:**

1. The Noctiluca algae, commonly known as sea tinkle, is a parasite and occurs in patches or 'blooms' in the Northern Arabian Sea.
2. They glow at night due bioluminescence (It is the production and emission of light by a living organism) and have earned them the nickname 'sea sparkle'.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**8. Consider the following statements about Noctiluca:**

1. A warming ocean means greater temperature differences among layers of the sea water and this slows the upward transport of nutrients like silicate from the ocean bottom, lowering its concentration at the surface.
2. Noctiluca consumes one of the most important planktonic organisms at the base of the fish-food chain, namely diatoms, and also excretes large amounts of ammonia, which is linked with massive fish mortalities.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**9. Consider the following statements about Red Sanders:**

1. It is found in southern Eastern Ghats mountain range of South India.
2. This tree is valued for the rich red colour of its wood.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**10. Consider the following statements:**

1. UMANG (Unified Mobile Application for New-age Governance) app aims to build common, unified platform and mobile app to facilitate single point of access for government services (centre, state and utility services) through mobile.
2. It has been developed by Ministry of Electronics and Information Technology (MeitY) and National e-Governance Division (NeGD)..

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**11. Consider the following statements about Dust storms and Thunderstorms:**

1. Thunderstorms occur when atmosphere has moisture and dust storms take place when moisture is not present.
2. Such events take place due to local instability arising out of deviation from normal temperature difference between upper and lower atmosphere..

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**12. Consider the following statements about Advance Pricing Agreement:**

1. APA scheme endeavours to provide certainty to taxpayers in domain of transfer pricing by specifying methods of pricing and setting prices of international transactions in advance.
2. It helps in determining arm's length price of international transactions in advance for max period of 5 future years.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**13. Consider the following statements about Mission for Integrated Development of Horticulture (MIDH):**

1. It aims to promote holistic growth of horticulture sector and also enhance horticulture production, improve nutritional security and income support to farm Households.
2. It also aims to enhance horticulture production, improve nutritional security and income support to farm Households.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**14. Consider the following statements with respect to Website Accessibility Project**

1. Initiative to empower Persons with Disabilities
2. By Ministry of Electronics

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**15. With reference to Awakened Citizen Programme which of the below statements would be incorrect?**

1. It is an initiative of Ministry of Science
2. To impart students on Mathematics
3. Its implementation is voluntary

- A. Only 1 and 2
- B. Only 2 and 3
- C. Only 3 and 1
- D. 1, 2 and 3

**16. Which of these countries is landlocked?**

1. Bolivia
2. Uruguay
3. Paraguay
4. Guyana

Which of the above statements are correct?

- A. All of the above
- B. 2 and 4
- C. 1 and 3
- D. 1, 3 and 4

**17. Consider the following statements:**

1. Saturated Fats are solids at room temperature
2. Unsaturated Fats are liquids at room temperature

Which of the above statements are incorrect?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**18. The Cannes Film festival is held in**

- A. USA
- B. UK
- C. Canada
- D. France

**19. Bringing Green Revolution to eastern India is a sub scheme of**

- A. National Mission on Agriculture Extension and Technology
- B. National Mission for sustainable agriculture
- C. Rashtriya Krishi Vikas Yojana
- D. It is not a subscheme

**20. Consider the following statements related to UMANG:**

1. It is an initiative under Digital India Programme.
2. It is a single point of access to all government services.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**21. Consider the following statements regarding Rashtriya Arogya Nidhi (RAN):**

1. It aims to provide financial assistance to BPL patients, who are suffering from major life-threatening diseases, to receive medical treatment at any of the 13 listed super specialty institutes or government hospitals.
2. The financial assistance to such patients is provided in the form of 'one-time grant'.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2



**22. Consider the following statements about Zero Defect, Zero Effect Scheme:**

1. The Scheme would boost exports of Indian goods.
2. The Scheme also aims to suppress bad effects of products on environment.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**23. Recently PM gave the call for building a New India by 2022, which aims to quit evils like corruption. What can be the possible measures for reducing corruption in the country?**

1. BHIM app
2. Direct Benefit Transfer
3. Demonetisation
4. Aadhar Act

Which of the above statements are correct?

- A. 1 and 3 only
- B. 2 and 4 only
- C. 1 and 2 only
- D. All of the above

**24. Consider the following statements:**

1. National Investigation Agency (NIA) is a central agency established by the Indian Government to combat terror in India.
2. The agency is empowered to deal with terror related crimes across states without special permission from the states.
3. A State Government may request the Central Government to hand over the investigation of a case to the NIA.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. All of the above

**25. Consider the following statements:**

1. Hot money is the flow of funds (or capital) from one country to another in order to earn a short-term profit.
2. These speculative capital flows are called 'Hot money' because they can move very quickly in and out of markets.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**26. Consider the following statements about Indian Ocean Rim Countries Cooperation:**

1. The Indian Ocean Rim Association (IORA) was established in March 1997 with a mandate to promote sustainable growth and balanced development in the region.
2. Historically, IORA focused on issues of maritime security, trade, cultural promotion, tourism and fisheries.
3. In recent years, new and emerging issues for the better management and governance of Indian Ocean resources have begun taking shape. Such issues include blue economy development and sectoral integration.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. All of the above

**27. Consider the following statements about Project Mausam:**

1. Transnational initiative meant to revive its ancient maritime routes and cultural linkages with countries in the region.
2. Project focuses on the natural wind phenomenon, especially monsoon winds used by Indian sailors in ancient times for maritime trade, that has shaped interactions between countries and communities connected by the Indian Ocean.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. 1 and 2 only
- D. None of the above.

**28. Consider the following statements about National Nutrition Mission (NNM):**

1. It will comprise mapping of various Schemes contributing towards addressing malnutrition.
2. NNM targets to reduce stunting, under-nutrition, anemia (among young children, women and adolescent girls) and reduce low birth weight by 2%, 2%, 3% and 2% per annum respectively..

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. 1 and 2 only
- D. None of the above

29. It aims at mainstreaming tribal community by promoting primary level value addition to Non

1. Timber Minor Forest Produce (MFP) at grassroots level.
2. It will be implemented through Ministry of Tribal Affairs at Central Level and TRIFED as nodal agency at National Level..

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. 1 and 2 only
- D. None of the above

30. Consider the following statements about POSHAN Abhiyaan:

1. It targets to reduce level of under-nutrition and other related problems by ensuring convergence of various nutrition-related schemes.
2. It also targets stunting, under-nutrition, anaemia (among young children, women and adolescent girls) and low birth rate.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

31. Consider the following statements:

1. The NITI Aayog has signed Statement of Intent (Sol) with search engine giant Google to work together to foster growth for India's nascent artificial intelligence (AI) and machine learning (ML) ecosystem.
2. Under the aegis of this program, Google will train and incubate Indian AI startups in accelerator program..

Which of the above statement(s) is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

32. Consider the following statements:

1. DTAA is a tax treaty signed between countries (or any two/multiple countries) so that taxpayers do not pay double taxes on their income earned from source country as well as their residence country.
2. The need for DTAA arises out of imbalance in tax collection on global income of individuals.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

33. Which Union Ministry is planning to expand Van Dhan Vikas Kendras in Tribal Districts across India?

- A. Union Ministry of Tribal Affairs
- B. Union Ministry of Social Justice & Empowerment
- C. Union Ministry of Science and Technology
- D. Union Ministry of Commerce and Industry

34. Consider the following statements about Flood Plains:

1. A floodplain or flood plain is an area of land adjacent to a stream or river which stretches from the banks of its channel to the base of the enclosing valley walls.
2. When inundated with water, floodplains act as natural filters, removing excess sediment and nutrients, which can degrade water quality and increase treatment costs..

Which of the statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

35. Match the following indices with their publishers:

Index

- i. WPI
- ii. CPI combined
- iii. GDP Deflator
- iv. CPI-Industrial Workers

Published by

1. Labour Bureau
2. Office of Economic Advisor
3. CSO

Select the correct answer using the code given below:

- A. (i)-2, (ii)- 3, (iii)-3, (iv)-1
- B. (i)-1, (ii)- 1, (iii)-2, (iv) -1
- C. (i)-1, (ii)-3, (iii)-3, (iv)-2
- D. (i)-1, (ii)-2, (iii)-3, (iv)-3

36. "Demonetization" of Rs. 500 and Rs. 1000 currency notes has resulted in which of the following?

- A. Decrease in liquidity in the economy
- B. Reduction in money supply
- C. Decrease in market interest rates
- D. All of the above

**37. Consider the following statements about unemployment:**

1. Cyclical unemployment occurs when there is not enough aggregate demand in the economy to provide jobs for everyone who wants to work.
2. Frictional unemployment occurs when people change from one to another and remain unemployed during this interval period.

Which of the above statements is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**38. Consider the following statements about North East Special Infrastructure Development Scheme (NESIDS):**

1. It will provide 100% funding from the Central Government to fill up the gaps in creation of infrastructure in specified sectors till 2020.
2. The new scheme will broadly cover creation of infrastructure.

Which of the above are statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**39. Consider the following statements about Ease of Doing Business Index:**

1. Ease of Doing Business is an index of World Bank which inter alia refers to the dispute resolution environment in a country which facilitates the investors in deciding for setting up of and operation of a business.
2. India reached 100th ranked country in terms of 'Ease of Doing Business' amongst 190 countries.

Which of the above are statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**40. Consider the following statements about Malabar Exercise:**

1. The annual Malabar exercise started in 1992 as a bilateral event between the navies of India and the United States.
2. India is holding the exercise in the Bay of Bengal and alternatively in the Sea of Japan.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**41. Consider the following statements:**

1. The pyrogen test is carried out to check impurity or substance that can cause adverse side-effects.
2. The abnormal toxicity test is carried out to check potential hazardous biological contamination in vaccine formulations.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**42. Which of the following countries is part of Andean Community?**

1. Brazil
2. Argentina
3. Peru
4. Ecuador

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. All of the above

**43. Consider the following statements:**

1. River Plate empties into south Pacific Ocean.
2. Lake Maracaibo flows in Venezuela.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**44. Tropic of Capricorn passes through**

1. Brazil
  2. Paraguay
  3. Chile
  4. Ecuador
  5. Uruguay
- A. 1, 2 and 3  
B. 2, 3 and 4  
C. 3, 4 and 5  
D. 1, 2, 4 and 5

**45. Consider the following matches:**

1. Quebracho- Axe breaker
2. Balsa- Lightest wood
3. Carnauba- Brazil Wax

Which of the above are matched incorrectly?

- A. 1 Only  
B. 3 Only  
C. All of them  
D. None of them

**46. Consider the following statements with reference to racial groups:**

1. Mestizos- Mixed European and Indian blood Race
2. Mullattos – Mixed European and Black blood race
3. Zambo- Mixed black and Indian Race

Which of the above are matches are correct?

- A. 1 and 2 Only  
B. 2 and 3 Only  
C. 1 and 3 only  
D. All of the above

**47. Consider the following statements about Panmunjom Declaration:**

1. North Korea and South Korea signed the Panmunjom Declaration for Peace, Prosperity and Unification of the Korean Peninsula.
2. They pledged to work for the 'complete denuclearisation of the Korean Peninsula'.

Select the correct answer using the codes given:

- A. 1 only  
B. 2 only  
C. Both 1 and 2  
D. None of the above

**48. Consider the following statements about N Korea and S Korea:**

1. North and South Korea were one unified country until 1910.
2. The boundary between their zones of control was called the 38th parallel.

Select the incorrect answer using the codes given:

- A. 1 only  
B. 2 only  
C. Both 1 and 2  
D. None of the above

**49. Consider the following statements about Biosignature:**

1. A biosignature is sometimes called chemical fossil or molecular fossil.
2. It is any substance – such as an element, isotope, molecule, or phenomenon – that provides scientific evidence of past or present life.

Select the correct answer using the codes given:

- A. 1 only  
B. 2 only  
C. Both 1 and 2  
D. None of the above

**50. Consider the following statements about Megadiverse countries:**

1. The megadiverse countries are a group of nations that contains more than 70% of the earth's biodiversity.
2. These 17 nations are mostly located in the tropical or subtropical region.

Select the correct answer using the codes given:

- A. 1 only  
B. 2 only  
C. Both 1 and 2  
D. None of the above

**51. Consider the following statements about Article 35 A:**

1. Article 35A is a provision incorporated in the Constitution giving the Jammu and Kashmir Legislature a carte blanche to decide who all are 'permanent residents' of the State.

2. The provision mandates that no act of the legislature coming under it can be challenged for violating the Constitution or any other law of the land.

Select the correct answer using the codes given:

- A. 1 only  
B. 2 only  
C. Both 1 and 2  
D. None of the above

**52. Consider the following statements about Capital Adequacy Ratio (CAR):**

1. Capital Adequacy Ratio (CAR) is the ratio of a bank's capital in relation to its risk-weighted assets and current liabilities.
2. The risk-weighted assets take into account credit risk only.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**53. Consider the following statements Basel III norms:**

1. The Basel III norms stipulated a capital to risk-weighted assets of 8%.
2. Indian scheduled commercial banks are required to maintain a CAR of 9% while Indian public sector banks are emphasized to maintain a CAR of 12%.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**54. Consider the following statements about Insolvency and Bankruptcy Code 2016:**

1. The Code highlights insolvency processes for individuals, companies and partnership firms.
2. Under IBC debtor and creditor both can start 'recovery' proceedings against each other.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**55. Consider the following statements about Lokpal:**

1. Lokpal's jurisdiction will cover all categories of public servants.
2. Lokpal will consist of a chairperson and a maximum of eight members.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**56. Consider the following statements about Trade facilitation agreement in services (TFS):**

1. The TFS proposal aims at liberalising rules for movement of professionals and other steps to reduce transaction costs with a view to boost growth of the services sector.
2. It will focus on issues like liberalised visa regime, long-term visas for business community.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**57. Consider the following statements about Tea Development and Promotion Scheme:**

1. The Scheme is aimed at supporting development of improved varieties and technologies for increasing production, productivity and quality of tea.
2. It includes promoting Indian tea in the overseas and domestic markets.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**58. Consider the following statements about Nakba' Day:**

1. It is generally commemorated on 15 May for Israeli Independence Day.
2. For the Palestinians, it is an annual day of commemoration of the displacement.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**59. Consider the following statements about Equity Markets:**

1. An equity market is different from a share market.
2. Equity market is the aggregation of buyers and sellers of stocks.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above



**60. Consider the following statements about Shell Companies:**

1. They can be set up by business people for legitimate purposes only.
2. Shell companies are companies without active business operations or significant assets.

Select the incorrect answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**61. Consider the following statements about Biofuels:**

1. Biofuels are combustible fuels created from biomass from recently living plant matter.
2. Biodiesel can be combusted in diesel engines.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**62. Consider the following statements about Categories of Biofuels:**

1. First generation biofuels are produced from food crops.
2. Second generation biofuels are produced from cellulosic material such as wood, grasses, and inedible parts of plants.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**63. Consider the following statements:**

1. Swachh Survekshan is a ranking exercise taken up by the Government of India to assess rural and urban areas for their levels of cleanliness.
2. The Quality Council of India (QCI) has been commissioned the responsibility of carrying out the assessment.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**64. Consider the following statements about Prompt Corrective Action, or PCA:**

1. It is meant to assess, monitor, control and take corrective actions on banks which are weak and troubled.

2. The process or mechanism under which such actions are taken is known as Prompt Corrective Action, or PCA.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**65. Consider the following statements about The Countering America's Adversaries Through Sanctions Act:**

1. It is a United States federal law.
2. It imposed sanctions on Russia only.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**66. Consider the following statements when PCA is triggered:**

1. RBI has set trigger points on the basis of CRAR (a metric to measure balance sheet strength), NPA and ROA.

2. Under PCA, Banks will also have to launch a special drive to reduce the stock of NPAs and contain generation of fresh NPAs.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**67. Consider the following statements about Directorate General of Foreign Trade (DGFT):**

1. The Directorate General of Foreign Trade (DGFT) is the agency of the Ministry of Commerce and Industry of the Government of India.

2. DGFT can prohibit, restrict and regulate exports and imports.

Which of the above statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**68. Consider the following statements about Commodity market:**

1. It is the market where a wide range of products are traded.
2. This would help investors hedge their commodity risk.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**69. Consider the following statements:**

1. A commodity derivatives market or exchange is a public marketplace where commodities are contracted for purchase or sale at an agreed price.
2. These purchases and sales are made under the terms and conditions of a standardized futures contract.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**70. Consider the following statements:**

1. World Economic Situation and Prospects (WESP) has ranked India as the fastest growing economy.
2. The Report is published by the agencies of UN.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**71. Consider the following statements about Pakal Dul Dam and Hydro Project:**

1. It is a Project on the Marusadar River, a tributary of the Chenab River, in Kishtwar district of the Indian state of Jammu and Kashmir.
2. It will be the first-ever power project of the state with a storage capacity in 0.5 million acres of area.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**72. Consider the following statements about South Africa**

1. Orange and Vaal flow from Drakensburg to Southern Ocean
2. Veld is a flat area covered in grass or low scrub

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**73. Khamsin in Geography refers to**

- A. Showers that help crops grow during spring
- B. Grasslands in Mid Africa
- C. Hot dusty wind in North Africa
- D. A rift valley lake

**74. Look at the following statements about Nigeria**

1. It is named after river Niger which drains into Gulf of Guinea
2. Kainji Dam is constructed on River Niger
3. Marked dry season in summer with hot and dust laden winds called Harmattan.

Which of the above statements are correct?

- A. 1 and 3 only
- B. 3 only
- C. 2 only
- D. None of the above

**75. Tropic of Capricorn passes through:**

1. Mozambique
2. South Africa
3. Zambia
4. Namibia
5. Botswana

Which of the above statements are correct?

- A. 2, 3, 4 and 5 only
- B. All of them
- C. 1, 2, 3 and 4 only
- D. 1, 2, 4 and 5 only

**76. Consider the following statements about Deendayal Upadhyaya Gram Jyoti Yojana (DUGJY):**

1. It focuses on feeder separation for rural households and agricultural purpose.
2. It also seeks to strengthen Micro grid and off grid distribution network of rural electrification.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**77. Consider the following statements:**

1. Permanent residency refers to a person's visa status, i.e. the person is allowed to reside indefinitely within a country of which he or she is not a citizen.
2. To avail PRS in India, the foreign investor will have to invest a minimum of Rs.10 crore to be brought within 18 months or Rs.25 crore to be brought within 36 months.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**78. Consider the following statements about Agreement on Safeguards:**

1. Safeguard measures are defined as "emergency" actions with respect to increased imports of particular products, where such imports have caused or threaten to cause serious injury to the importing Member's domestic industry.
2. Such measures, which in broad terms take the form of suspension of concessions or obligations, can consist of quantitative import restrictions or of duty increases to higher than bound rates.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**79. Consider the following statements about Pakal Dul Dam and Hydro Project:**

1. Regional Comprehensive Economic Partnership (RCEP) is a proposed free trade agreement (FTA) between the ten member states of the Association of Southeast Asian Nations (ASEAN) and the six states with which include India, China, Australia, Japan, South Korea and New Zealand.
2. RCEP would create the world's largest trading bloc.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**80. Consider the following statements about Navika Sagar Parikrama:**

1. This is the first-ever Indian circumnavigation of the globe by an all-women crew.
2. The crew is collating and updating meteorological, ocean and wave data on regular basis for accurate weather forecast by India Meteorological Department (IMD), as also monitoring marine pollution on high seas.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**81. Consider the following statements:**

1. Nipah Virus is an emerging infectious disease that broke out in Malaysia and Singapore.
2. The disease spreads through fruit bats or 'flying foxes' of the genus Pteropus, who are natural reservoir hosts of the Nipah and Hendra viruses.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**82. Consider the following statements:**

1. Debentures are long-term financial instruments which acknowledge a debt obligation towards the issuer.
2. The debentures which can't be converted into shares or equities are called non-convertible debentures (or NCDs).

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**83. Consider the following statements:**

1. Non-convertible debentures are used as tools to raise long-term funds by companies through a public issue.
2. To compensate for this drawback of non-convertibility, lenders are usually given a higher rate of return compared to convertible debentures.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**84. Consider the following statements:**

1. The Regional Anti-Terrorist Structure (RATS) is a permanent organ of the SCO.
2. The Shanghai Cooperation Organisation (SCO) is a Eurasian political, economic, and security organisation.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**85. Consider the following statements:**

1. The overall objective of priority sector lending programme is to ensure that adequate institutional credit flows into some of the vulnerable sectors of the economy.
2. There are eight broad categories of the Priority Sector Lending Agriculture; Micro, Small and Medium Enterprises; Export Credit; Education ; Housing ; Social Infrastructure ; Renewable Energy ; Others.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**86. Consider the following statements:**

1. Armed Unmanned Aerial Vehicles (UAVs) are not fully autonomous.
2. Unmanned Aerial Vehicles are regulated by specific international treaties that relate to their use, production, or trade.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**87. Consider the following statements:**

1. Gekko gekko, a lizard species with orange-spotted blue-grey skin, is protected under the Schedule III of the Indian Wildlife Protection Act.

2. Schedule III and Schedule IV are protected with high penalties for violation.

Which of the following statements are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**88. Consider the following statements about Boao Forum for Asia (BFA):**

1. It is regarded as China's equivalent of the World Economic Forum.

2. The Forum is committed to promoting regional economic integration and bringing Asian countries even closer to their development goals.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**89. Consider the following statements about Natural Capital:**

1. It can cover entire ecosystems such as fisheries and forests, besides other hidden and overlooked services such as regeneration of soil, nitrogen fixation, nutrient recycling, pollination and the overall hydrological cycle.

2. GDP estimates often exclude the variations in natural capital by assuming them to be constant and indestructible.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**90. Consider the following statements about Universal Service Obligation Fund:**

1. USO is to provide universal access to telecom services, i.e., focus on providing telecom services to rural and remote areas at affordable and reasonable prices.
2. All credits to the fund require parliamentary approval and it has a statutory support under Indian Telegraph (amendment) act 2003.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**91. Consider the following statements about Muthi Hala Bidai ritual:**

1. This ritual is performed by Tiwa tribesmen prepare in Karbi Anglong district of Assam.
2. Muthi Hala Bidai ritual is to worship nature by making replicas of wild animals and birds.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**92. Consider the following statements about Clean Air India Initiative:**

1. The campaign aims to curb air pollution in Indian cities by promoting partnerships between Indian start-ups and French companies.
2. An 'INDUS impact' projects aims to halt the hazardous burning of paddy stubble by promoting business partnerships that "upcycle" it.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**93. Consider the following statements about Nocebo effect:**

1. The phenomenon wherein a patient undergoing medical treatment may suffer from negative side effects purely due to her own negative expectations.
2. This is in contrast to the placebo effect where a patient enjoys better health due to positive expectations regarding her treatment.

Select the incorrect answer using the codes given:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. None of the above

**94. Consider the following statements about Windfall Tax:**

1. A tax levied by governments against certain industries when economic conditions allow those industries to experience above-average profits.
2. Windfall taxes are primarily levied on the companies in the targeted industry that have benefited the most from the economic windfall, most often commodity-based businesses.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**95. Consider the following statements:**

1. A captive power plant also called autoproducer or embedded generation is a power generation facility used and managed by an industrial or commercial energy user for their own energy consumption.
2. An independent power producer (IPP) or non-utility generator (NUG) is an entity, which is not a public utility, but which owns facilities to generate electric power for sale to utilities and end users.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

**96. Consider the following statements regarding the Insolvency and Bankruptcy Code, 2016.**

- i. The Code outlines separate insolvency resolution processes for individuals, companies and partnership firms.
- ii. The process has to be initiated by the debtor only.
- iii. Insolvency and Bankruptcy Board of India was established to oversee the insolvency proceedings in the country and regulate the entities registered under it.

Which of the above statement/s is/are correct?

- A. i) and ii) only
- B. ii) and iii) only
- C. i) and iii) only
- D. i), ii) and iii)



97. Which of the following is/are members of the Organization of the Petroleum Exporting Countries (OPEC)?

- i. Algeria
- ii. Nigeria
- iii. Gabon
- iv. Ecuador
- v. Iran

Choose the correct option:

- A. i), ii) and v)
- B. i), ii), iii) and v)
- C. ii), iv) and v)
- D. All of the above

98. Which of the following is incorrectly matched?

- A. Sarat Chandra Chattopadhyay – Valmiki Pratibha
- B. Bankim Chandra Chattopadhyay – Anand Math
- C. Rabindranath Tagore – Ghare Baire
- D. Dinabandhu Mitra – Neel Darpan

99. Which of the following statement with respect to National Green Tribunal is incorrect?

- A. NGT has been established under National Green Tribunal Act, 2011.
- B. It consists of a full-time chairperson, judicial members and expert members.
- C. The Tribunal has Original Jurisdiction on matters of substantial question relating to environment.
- D. None of the above

100. Consider the following statements with respect to Inner Line Permit (ILP).

- i. Inner Line Permit is operational in Arunachal Pradesh, Mizoram and Nagaland.
- ii. It can be used for travel purposes only.
- iii. Visitors are not allowed to purchase property in these regions.

Which of the above statement/s is/are incorrect?

- A. i) only
- B. ii) only
- C. iii) only
- D. None of the above

101. Which of the following statements regarding Land Boundary Agreement adopted by India and Bangladesh is incorrect?

- A. It was the first ever Land boundary agreement between India and Bangladesh.
- B. India transferred 111 border enclaves to Bangladesh in exchange for 51 enclaves.
- C. Constitutional amendment had to be made to operationalise the agreement.
- D. None of the above

102. Which of the following statements regarding enzymes is incorrect?

- A. Enzymes are biological catalysts which accelerate reactions.
- B. The study of enzymes is called enzymology.
- C. Pepsin is one of the main digestive enzymes in the digestive systems of humans.
- D. None of the above

103. Consider the following statements about UNEP:

- 1. UN Environment (or UNEP) is leading global environmental authority that sets global environmental agenda.
- 2. It is headquartered in Nairobi, Kenya.

Select the correct answer using the codes given:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

# ANSWER KEYS

Question No	Answer Keys
1.	C
2.	C
3.	C
4.	B
5.	C
6.	C
7.	D
8.	C
9.	C
10.	C
11.	C
12.	D
13.	C
14.	A
15.	A
16.	C
17.	C
18.	D
19.	C
20.	C
21.	C
22.	C
23.	D
24.	D
25.	C

Question No	Answer Keys
26.	D
27.	C
28.	C
29.	C
30.	C
31.	C
32.	C
33.	A
34.	C
35.	A
36.	D
37.	C
38.	C
39.	C
40.	D
41.	C
42.	C
43.	B
44.	A
45.	D
46.	D
47.	C
48.	C
49.	C
50.	C

Question No	Answer Keys
51.	C
52.	A
53.	C
54.	C
55.	C
56.	C
57.	C
58.	C
59.	B
60.	A
61.	A
62.	C
63.	C
64.	C
65.	A
66.	C
67.	C
68.	C
69.	A
70.	C
71.	C
72.	B
73.	C
74.	D
75.	D

Question No	Answer Keys
76.	C
77.	C
78.	C
79.	C
80.	C
81.	A
82.	C
83.	C
84.	C
85.	C
86.	A
87.	A
88.	C
89.	C
90.	C
91.	C
92.	B
93.	D
94.	C
95.	C
96.	C
97.	D
98.	A
99.	A
100.	D

Question No	Answer Keys
101.	A
102.	D
103.	A

# MAINS PRACTICE QUESTIONS

## **Paper- 1**

1. What are heat waves? What are the various initiatives taken by the Govt to address the issues associated with it?
2. Our people, our political leadership, and our policy planners need to act now to prevent urban migration. What are the various issues this could give rise to and how can it be addressed?
3. In India, rapid growth of population, poverty, urbanization, industrialization and several related factors are responsible for the rapid degradation of the environment. Discuss
4. Hindi played a unifying role during the freedom struggle in India. Discuss



**Paper- 2**

1. India's ranking in Press freedom is dropping year after year. What are the possible reasons and what should Govt do to overcome this issue?
2. India has made determined efforts to restore peace in Korean Peninsula. Explain
3. Draft National Policy for Domestic Workers complicates the laws instead of addressing the concerns of Domestic workers. Critically comment
4. The National Medical Commission is an eyewash by the Govt. to mend regulatory framework but fails to address the root cause. Critically Examine.
5. The Modi Xi Summit was not only a move to establish lost bonhomie but an informal move to Prevent the drift of India towards USA and Japan. Analyze
6. Various sections of RPA act have to be suitably amended with changing times to prevent Corruption. In the light of this statement discuss about various initiatives taken by SC and EC to bring in accountability by representatives
7. The immigration policy of UK has to be inclusive and should remove ambiguities to prevent Windrush type of controversies from surfacing. Discuss its implications on Indians
8. Why does India not produce many Nobel Prize winners? How much of it can be attributed to state of science education in India? Examine
9. The coronation of Xi Jinping as China's de facto president for life and Putin's election in Russia brings a new form of authoritarian political order. Discuss the implications for India.
10. The Citizenship (Amendment) Bill, 2016 does not solve the problems of Citizenship but instead raises new concerns. Critically Analyze.
11. What is Hague Convention and why is India not willing to join? Comment in reference to Rajesh Bindal Committee report
12. India has the responsibility in terms of regional stability and should play a major role in settling the unrest. Explain how can India bring multiple stakeholders to provide a safe habitat for Rohingyas.
13. China's relationship with Latin America has grown enormously in recent years and India needs to reinvent its diplomacy by more engagement and action and less lip service. Analyze
14. Explain how the tight monetary policy of US federal Reserve impacts India and other emerging economies.
15. North and South Korean leaders have signed grand documents before. Critically Analyse
16. Critically examine the Constitutional validity of article 35A
17. MGNREGA has a Nobel objective of providing employment by demand-driven approach but has various challenges. What are various challenges faced and how can we overcome them?
18. Explain about the structure and various Provisions of Lokpal Act. Why is there a delay in implementation
19. What is the SCO? What is India's role in the SCO?
20. Explain the constitutional and situational discretionarily powers of the governor. Also, comment on the recommendation of Sarkaria and Punchi Commission in the appointment of CM when no party holds a majority
21. The realignment of ties between India and China, Japan and China is a tactical and provisional affair, rather than long-term and strategic. Explain the causes for rapprochement
22. Surrender and Rehabilitation Policy in J&K should provide a healing touch and provide an alternative path of peace and prosperity to Kashmiri youth. What are the possible issues that need to be addressed to make it fruitful?

23. The threat to groundwater in India is not only from over-exploitation but also from arsenic contamination. Discuss
24. Should we do away with the I&B Ministry? Critically Analyze
25. The REPLACE initiative of WHO helps in solving the issue of Trans fat. Explain
26. Discuss the concerns of India in the wake of geo-political and economic growth of China
27. Critically analyze the systemic issues faced by the Judiciary across India
28. In the context of India-China relationship, matters of regional trade and connectivity can play a major role in diffusing the border conflicts. Critically Analyse
29. The outbreak of the deadly Nipah virus is a test of India's capacity to respond to public health emergencies. Comment
30. The present Maldivian government is inclined towards China. Discuss the challenges faced by India in dealing with Maldivian crisis
31. Governor has enough discretion to skew the political process in the direction that the Central government desires. Critically Examine
32. The National Human Rights Commission (NHRC) has been often described as a paper tiger. The Protection of Human Rights (Amendments) Bill 2018 intends to give the NHRC teeth as well as claws to act against human rights violations. Comment
33. Analyse Indo-Bangladesh relations in the light of their shared cultural heritage
34. Real Estate Regulation Act can change the real estate landscape in our country. Discuss
35. The practice of science, since independence, has transformed India well. Comment
36. To what extent can the Ayushman Bharath Programme enhance the health of the population and at the same time reduce the out of pocket expenditure for the common man? Critically analyses
37. Development and environment are two sides of the same coin. Discuss

**Paper- 3**

1. Capping of Prices on medical stents is a important social welfare move but has its set of negative implications. Discuss.
2. With increase in cyber security threats emanating from neighboring countries, how should the Govt, the private sector and Civil Society Prepare. Also comment on various initiatives taken by Govt
3. Demographic dividend may become liability without skill development. Discuss the importance of Skill India initiative.
4. The depreciation in value of rupee against the dollar is due to mix of domestic and international policies. Elaborate
5. Pokran II was a compulsion not just a Nuclear test for India. Discuss the implications
6. The Walmart Flipkart business deal stamps the growth of Indian Entrepreneurship and leads to control of Indian market by foreign companies. Critically Analyze
7. Discuss the concerns raised about Customer rights in the Insolvency and Bankruptcy Code
8. GM food Crops have to undergo complete scrutiny before being introduced in India. Discuss with respect to the introduction of GM Mustard
9. Explain in detail about National Policy on Bio-fuels. Also, comment on advantages of biofuels
10. Discuss the challenges faced in the implementation of Insolvency and Bankruptcy Code (IBC)
11. The Priority Sector Lending norms have not helped the agriculture sector in giving access to credit to the deserving sections of farmers. Discuss
12. The issue of rising fuel prices is a concern for the Government. What are the causes for the rise in prices and also suggest some measures in this regard?
13. Discuss the recent shift in focus of the Indian government towards revamping the governance structure, in the light of Infrastructure boom
14. The monsoon in India being highly variable, there is a need for urgent water management reforms that have to be undertaken to help citizens and avoid losses to the economy. Discuss
15. How can India strike a balance between tradition and modernization? Discuss in the light of recent Rekla race and Jallikattu issue in Tamil Nadu

# Why Choose BYJU'S CLASSES?

## Our USPs



Committed to providing the best faculty in the field coupled with services of eminent guest speakers/experts on relevant topics and interaction with renowned personalities and toppers.



Providing the best ever conducive atmosphere for overall growth of knowledge, skill and aptitude through classroom sessions, group study, discussion, deliberations and question sessions



Infusing the right skills in developing the analytical ability and aptitude required for giving their best.



Providing revised syllabi and latest study materials prepared after thoughtful research by distinguished analysts on the panel.



Organizing interactive sessions on previous year's question papers, modular full length test in the circumstances similar to the Civil Services Exam.



Organising Mock Interviews by panels of eminent and experienced IAS and IPS Officers.



Organizing All India Mock Tests catering to the maximum number of students Nation wide.



Interactions of enrolled aspirants with the Rankers of Civil Services Examination.

## Our Advisory Board

**S N Jha**

(IAS Retd, Former  
Chief Secretary, Bihar)

**K J Alphons**

(IAS Resigned)

**C N S Nair**

(IAS Retd, Former  
Secretary to Govt of India)

**SN Mukherjee**

(Air Vice Marshal Retd.)

**A K Puri**

(IPS Retd, Former DGP,  
Himachal Pradesh)

**Arun Kumar Mago**

(IAS Rtd, Former  
Chief Secretary, Maharashtra)

**B L Vohra**

(IPS Retd, Former DGP,  
Tripura)

**B S Lamba Prasad**

(IAS Retd, Former  
Indian Envoy to UNO)

**A K Rastogi**

(IAS Retd, Former  
Secretary to Govt Of India)

**Vineet Ohri**

(IRS Retd, Former Chief  
Commissioner, Customs & Excise)

## OFFICES

Bangalore
 Delhi-NCR
 Hyderabad
 Chennai
 Pune
 Kolkata
 Mysore
 Manipal  
 Ahmedabad
 Chandigarh
 Kerala
 Mumbai

# ABOUT BYJU'S

We are the largest Education Technology (Learning) company in India that is re-inventing the learning system for students with its cutting-edge "Learning App".

BYJU'S Learning App was launched last year and has witnessed extraordinary and impressive feat in revolutionizing the way we learn and today we have over 8 million students on its platform across the world. The Learning App is one of a kind that is designed using interactive simulations, watch-and-learn videos, rich animations, and enriched with content that gives conceptual clarity making learning contextual and visual, not just theoretical.



TAB



Classes



Prelims  
Test Series



Mains  
Test Series



Interview  
Preparation



Dedicated  
Mains Batch

## Want to know more?

Call or WhatsApp

**09980837187**

## Visit:

[www.byjus.com](http://www.byjus.com)

[www.byjus.com/free-ias-prep](http://www.byjus.com/free-ias-prep)

[www.facebook.com/byjusclasses](https://www.facebook.com/byjusclasses)

## AWARDS



ET 40 Under Forty  
India's Hottest Business  
Leaders Award (2016)



Education Company Of  
The Year 2016



Winner of  
SuperBrands  
SuperStartUps 2017

**Deloitte.**

Winner of Deloitte Technology Fast 50 India  
and Top 500 Asia Award (2012, 2013, 2014,  
2015, 2016 & 2017)



Reimagine Education Award 2016  
Overall Ed Tech winner Gold Award for Best  
Educational App



Winner of  
Established Education App  
of the Year (2017)



Winner of Google Play's  
"Best Self Improvement"  
app in India 2016



Winner of ASSOCHAM  
SMEs Excellence Award  
for Start-up of the Year 2016



Winner of CNBC TV18  
Young Turks of the year award



GMA Summit  
Award 2016



ET Now Education Excellence  
Award (2013)