

G.S. Paper -2

Topic: Polity

1. 'South Asian citizens see larger role for religious leaders'

<http://www.thehindu.com/news/national/south-asian-citizens-see-larger-role-for-religious-leaders/article17664715.ece>

What's in news?

- 'State of Democracy in South Asia'-Report highlights- Survey has been brought out under the aegis of the **Global Barometer Survey**
- A expansive number of individuals in South Asian nations support a part for religious pioneers as against legislators in real basic leadership in their nation all nations in the district have justly chosen governments.
- In Pakistan the greater part the respondents supported the contribution of religious pioneers set up of legislators in essential basic leadership, more than 33% stood firm in Sri Lanka, and around one-fourth embraced this position in Nepal, Bangladesh and India.
- The bolster for a part for religious pioneers is most noteworthy among the Muslims crosswise over nations of the locale
- Rising polarization: The report stated, "Support for religious pioneers reflects is less a vote of trust in their certifications however an unmistakable dissatisfaction with the political class. The expanded religious polarization that social orders in nations of South Asia were seeing in the current past might have likewise added to this oblivious affirmation of confidence in the limits of religious pioneers."
- In India, the Army kept on being the most put stock in organization (57% of respondents), trailed by legal (36%). In India, Bangladesh and Pakistan, more individuals tended to doubt the police. In India, 23% of respondents have low trust while 20% of them have no trust. A higher level of trust in Army and legal could owe to the protected path in which they work. Subjects watch their working from a separation, frequently the 'non-straightforward' nature of their working.
- The emergency of believability of political gatherings in South Asia proceeds with More than half of the respondents in the area had no trust or low trust in political gatherings and this saw an expansion since the first round of the review in 2005 (SDSA Report I). In India just 10 % of respondents have high trust in political gatherings, 27% have medium trust, 26% have low trust, 24% of respondents have no trust and 13% have no supposition at all.
While 28% of respondents have no trust in Nepal, 26% in Sri Lanka, 18% in Bangladesh, 17% in Pakistan.
In three nations of the locale — Pakistan, Bangladesh and India — religious minorities had a tendency to have more prominent confidence in the legal when contrasted with the religious larger part group.

Topic: Environment Science and Ecology

1. Egyptian vulture finds its nest back in Delhi

<http://www.thehindu.com/news/cities/Delhi/egyptian-vulture-finds-its-nest-back-in-delhi/article7705141.ece>

What's in news?

- Reappearance of the Egyptian vulture – which had vanished from the city.
- The vulture is a valuable scrounger and assumes a key part in the earth as biological community specialist organization as it encourages on carcass (rotting tissue of dead creatures) and keeps the common habitat clean and controls spreading viral infections from rotting remains.
- Overall vulture populace has quickly declined amid the most recent three decades since mid-nineties and fast populace decrease recorded in India in the vicinity of 2000 and 2007.
- Egyptian Vulture (*Neophron percnopterus*), one among nine vulture animal varieties accessible in Indian sub-landmass is a vast range circulated animal types in Europe, Africa and Asia .
- Egyptian Vulture populace has been quickly declined in India because of confronting a few noteworthy dangers as unsettling influence, harming, electric shock, shortage of nourishment, natural surroundings misfortune yet to a great extent because of lethal impact of veterinary medication i.e. Diclofenac through domesticated animals corpses.
- Due to greatly quick populace decrease in India this species has been enrolled as **Endangered (EN) vulture species in the IUCN Red- IUCN Red-list of Threatened Species in 2012.**
- **Steps taken to enhance Vultures populace:**
 - a) Continuous mindfulness and exertion by BNHS for vulture preservation, Drug Controller General (India), Ministry of Health and Family Welfare and Dept of Animal Husbandry, Ministry of Agriculture.
 - b) Govt of India has prohibited Diclofenac on veterinary use in the year 2006 and additionally Gazette Notification of Ministry of Health and Family Welfare, Govt of India restricted the offer of **Diclofenac** in multi-measurements vials in 2015.

Topic: Science

1. Oldest fossils hold clue to origin of life

<http://www.thehindu.com/sci-tech/science/oldest-fossils-hold-clue-to-origin-of-life/article17663916.ece>

- A new review in Nature finds the starting point of life no less than 3,770 million and perhaps 4,290 million years prior in ferruginous (containing iron oxides or rust) sedimentary rocks, translated as ocean bottom aqueous vent-related encourages from the Nuvvuagittuq supracrustal belt of Eastern Canada.
- Study uncovered - Life on Earth may have begun sooner than thought and could have done as such in aqueous vents on the sea floor.
- Epifluorescence imaging of present day vent tests has demonstrated that round and hollow throws made out of iron oxyhydroxide are framed by bacterial cells and are evidently of organic source (biogenic) - shows that life started in aqueous vents surprisingly on this planet.

2. A brewing debate on evolution theory picks up in India

<http://www.thehindu.com/sci-tech/science/a-brewing-debate-on-evolution-theory-picks-up-in-india/article17663944.ece>

▪ What Classical theorist thought of?

The phenomenon of **niche construction** in evolutionary biology has been mooted to be highly important but neglected in evolutionary biology theory. Not just that, it has been termed a concept at par with natural selection.

▪ Guiding light:

- ✓ Five Indian evolutionary biologists connected to Evolutionary & Organismal Biology Unit of JNCASR, Bengaluru, have set out to show that this is not so.
- ✓ Apart from citing instances of the concept's use in earlier papers, they also argue that incorporating the phenomenon does not involve a major reworking of Standard Evolutionary Theory (SET).

- **The Debate:** Over the last two decades, niche construction – the phenomenon by which evolving organisms modify their environment, which in turn increases or decreases their own survival rate – has become much talked about in the literature. Proponents of this theory have argued that it has been neglected in the Standard Evolutionary Theory, which therefore needs a major overhauling. This has been debunked in the paper by the authors.

▪ A new Domain

- ✓ The foundational debates within evolutionary biology for the past 15 years have been dominated by scientists from North America and Western Europe.
- ✓ One of the contentions of the authors is that contrary to the claims that Niche Construction has been neglected in the Standard Evolutionary Theory, they show in the paper that it has been considered by many authors to explain phenomena, even before the term “niche construction” was coined.

Examples:

- a) Experimental study done by Borash and others in 1998: The experiment involved breeding larvae of fruit fly, *Drosophila melanogaster*, in an environment where food was reduced and presence of nitrogenous waste was increased. It was observed that even within one generation the larvae that formed early became heavy feeders and the late developers grew to become waste tolerant. Thus, within one generation, they were able to observe the effect of environment that was altered by the organism (the heavy feeders depleting the environment of food for the late developers). They found that it introduced the above polymorphism – separation into heavy feeders and waste tolerant types.
- b) Proponents of niche construction use the following examples often: The use of lactose to feed adult humans – which is believed to have evolved along with cattle husbandry – and the high incidence of sickle cell anaemia in populations where there is a prevalence of malaria, due to yam cultivation
- The writers expose the cases by referring to references of the above cases as of now having been utilized inside the traditional hypothesis itself.

3 Indians find a new bacterial target for drug development

<http://www.thehindu.com/sci-tech/science/indians-find-a-new-bacterial-target-for-drug-development/article17663936.ece>

What's in news?

- Indian researchers have found a new target that can potentially be used for developing new antibiotics that will be effective against many bacteria.
- The new target is made of two proteins(GroEL-PrkC complex), which form a complex that is responsible for the formation of **biofilm**, that perform

very important functions and are critical for bacterial ability to successfully infect humans.

- Till now, all attention has been on developing antibiotics that target disease-causing bacteria and not the biofilm itself.

▪

What is a Biofilm?

- Biofilm as a biological shield: Bacteria form biofilms, a kind of matrix, during infection in plants and animals. The biofilm shields the bacteria from antibiotics and helps bacteria survive harsh conditions such as extreme temperature or stress.

How bacterial infection can be prevented?

- Target molecular signaling event that leads to synthesis of biofilms in bacteria.

How biofilms are formed?

- Bacteria have sensors on the surface which senses some signal and helps in biofilm formation.
- PrkC a protein senses some signal and transmits it from outside to inside the cell. This signal goes to other proteins like GroEL. PrkC adds phosphate group (phosphorylate) to different proteins. The mystery to biofilm formation lies with one chaperone protein called GroEL. The addition of phosphate to this tiny machine initiates a course of events within bacterial cells leading to complex biofilm formation. (Not required to read-just understand the basic concept)
- When PrkC protein is deleted, Bacillus bacteria are unable to form biofilm
- GroEL-PrkC complex could be a target for developing new antibiotic that will be effective against many bacterial pathogens such as the ones that cause MRSA, TB and pneumonia. One strategy to tackle drug resistant bacteria will be to develop multi-drug regimen that combines traditional antibiotics with candidate drugs that can block bacterial signalling and prevent biofilm formation.

Practice Questions:

- **Choose the correct statement with reference to Biofilms.**
 1. Biofilms are protective layer synthesized by virus
 2. Biofilms are protective layer synthesized by fungi
 3. Biofilms are protective layer synthesized by Bacteria
 4. Biofilms are film reels made using plant biomass.

Correct Answer: 3

Type: Current Affair

Level: Moderate

Explanation: Bacteria form biofilms, a kind of matrix, during infection in plants and animals. The biofilm shields the bacteria from antibiotics and helps bacteria survive harsh conditions such as extreme temperature or stress.

• **Consider the following statement**

1. Niche construction is the phenomenon by which evolving organisms modify their environment, which in turn increases or decreases their own survival rate.
2. High incidence of sickle cell anaemia in populations where there is a prevalence of malaria, due to yam cultivation depicts niche construction phenomenon.

Choose the correct answer

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

Correct Answer: C

Type: Current Affair

Level: Moderate

Explanation: niche construction – the phenomenon by which evolving organisms modify their environment, which in turn increases or decreases their own survival rate – has become much talked about in the literature. Proponents of this theory have argued that it has been neglected in the Standard Evolutionary Theory, which therefore needs a major overhauling. This has been debunked in the paper by the authors.

Proponents of niche construction use the following examples often: The use of lactose to feed adult humans – which is believed to have evolved along with cattle husbandry – and the high incidence of sickle cell anaemia in populations where there is a prevalence of malaria, due to yam cultivation

GS Paper 2

Topic : International Relations

Indo-U.S. civil nuclear pact likely to miss June deadline

<http://www.thehindu.com/news/national/indo-us-civil-nuclear-pact-likely-to-miss-june-deadline/article17668572.ece>

Key Points :

- Chapter 11 of reactor creator Westinghouse mists operationalisation of the arrangement
- Over two years after India and the U.S. declared that the common atomic arrangement was "done," its real operationalisation is in uncertainty over various improvements that extend from a "school embarrassment" in the Japanese parliament in Tokyo to the Cranberry, Pennsylvania base camp of Westinghouse Electric, which is required to petition for chapter 11 this week.
- As indicated by the understanding over risk issues and the arrangements that took after previous U.S. President Barack Obama's visit to India in January 2015 and Prime Minister Narendra Modi's visit to Washington in June 2016, the two sides had consented to "work toward finishing the legally binding game plans by June 2017" for six reactors to be implicit Andhra Pradesh by Toshiba-possessed Westinghouse and the Nuclear Power Corporation of India Ltd (NPCIL).
- Whenever finished, this was to be the primary operationalisation of the Indo-U.S. common atomic arrangement, which was reported in 2008, and evidence that both sides have successfully dealt with every one of their issues, including over the obligation that providers must acknowledge in case of a mischance.
- The explanation behind the worry is that the Indo-U.S. atomic game plan relied on two central point — the consummation of the India-Japan Nuclear Cooperation Agreement (NCA), as Toshiba and different providers for reactor parts are bound by Japanese laws and by the genuine contract to be consulted by the U.S.- based Westinghouse.
- While the NCA was marked in Tokyo in November 2016, it is yet to be endorsed by the Japanese Diet (Parliament). Japanese authorities disclosed to The Hindu that the NCA was relied upon to have been approved toward the beginning of March amid the present session, however has been wrecked by a debate over allegations that Prime Minister Shinzo Abe, his better half and the Defense Minister Tomomi Inada favored an asserted "sweetheart arrangement" for a school in Osaka.

GS Paper 3

Topic : Disaster Management

Sharp rise in forest fires as summer advances in Odisha

<http://www.thehindu.com/todays-paper/tp-national/sharp-rise-in-forest-fires-as-summer-advances-in-odisha/article17669767.ece>

Key Points :

- Satellite pictures have recorded more than 1,600 woodland fires in the State in March alone.
- Regardless of the Odisha government having a standard working method to avoid woods fires that cause monstrous biological and monetary misfortunes, there has been no easing up in such episodes in the State.
- Satellite pictures have recorded 1,607 woods fires in various wildernesses of Odisha amid March. The quantity of backwoods flames has surged 57% contrasted and 1,018 saw amid the comparing time frame a year ago.

Topic : Environment

Uttarakhand govt to ensure safety of Corbett park wildlife

<http://www.thehindu.com/news/national/other-states/kandi-road-project-ukhand-to-ensure-safety-of-corbett-park-wildlife/article17667148.ece>

Key Points :

- Worries over Kandi extend that is set to go through stop
- The Uttarakhand government has said that it will guarantee that natural life at the Corbett National Park is not hurt with the development of the Kandi street which goes through it.
- The Kandi street extend which will go through the national stop will decrease the separation amongst Garhwal and Kumaon by around 70 km.

Individuals' accommodation

- "The administration is attempting to discover an answer for the Kandi street extend issue by which the security of untamed life is guaranteed while remembering the accommodation of individuals," Uttarakhand Forest Minister Harak Singh Rawat said.
- In the wake of untamed life activists presenting an appeal to the State government to stop the street extend, he said the venture will be finished remembering all angles.
- With the development of the Kandi street, the course from Kotdwar in Pauri Garhwal to Ramnagar in Kumaon will be abbreviated from the present 162 km to around 90 km.
- The Supreme Court had requested the Public Works Department of the Uttarakhand government to set up another arrangement of the venture.
- "We will show the new proposition in the court soon," he included.

Topic : Economy

A timely step

<http://www.thehindu.com/opinion/editorial/a-timely-step-stateowned-banks-should-strive-to-address-their-npas/article17668164.ece>

Key Points :

- State-possessed banks, advised to submit turnaround arrangements, ought to endeavor to address their NPAs.
- The Finance Ministry's unequivocal message to 10 state-claimed loan specialists to submit time-bound turnaround arrangements, or neglect any further capital imbuement from the legislature, is a little yet convenient stride in the correct heading.
- As the Reserve Bank of India had hailed in its last Financial Stability Report, dangers to the keeping money division remain worryingly "high".
- The nonstop decay in resource quality, particularly at people in general segment banks (PSBs), has prompted low benefit and considerable esteem disintegration to the central shareholder — the administration.
- As the RBI's report called attention to, PSBs saw the extent of their gross non-performing advantages for aggregate advances twofold in the 12 months through September 2016 to 11.8%.
- That the Center has incorporated the workers' unions in the proposed MoUs it means to go into with the loan specialists is additionally characteristic of the earnestness with which it is moving toward the determination this time around.
- Staff, who have been a key component in the development and advancement of the division, have a personal stake in the strength of PSBs; the danger of proceeded with disappointment is conclusion and employment misfortunes.
- Undoubtedly, the Center needs to work at the same time in close show with the managing an account controller and the loan specialists themselves to structure proper systems to empower the execution of the turnaround arrangements, including determination of the focused on resources.
- The stipulation of a three-year time constrain for the execution of the turnaround is likewise huge as Indian loan specialists need to meet Basel III capital controls by March 31, 2019.
- There is subsequently little time to lose, and the legislature and the banks have their work slice out if India is to keep away from the ghost of powerless banks having minimal motivator to loan, and monetary action influenced for need of credit.

Topic : Indigenization of Technology

India eyes Dhruv's foreign market

<http://www.thehindu.com/news/national/india-eyes-dhruvs-foreign-market/article17668821.ece>

Key Points :

- In chats with Sri Lanka and Southeast Asian countries; accentuation on support.
- As a feature of endeavors to upgrade resistance participation and lift sends out with inviting nations, India is in examinations with Sri Lanka and a few Southeast Asian countries for the supply of Dhruv, the indigenously created propelled light helicopter (ALH).
- This time, India is putting particular accentuation on support and preparing in perspective of its experience of Dhruv deals to Ecuador, which got involved in legitimate issues.

Accessibility of extras

- Dhruv, planned and created by the HAL, is controlled by the Shakti motor mutually created by it and Turbomeca of France. More than 200 helicopters are in administration with the Indian military.
- The three Services have continually griped about absence of extras and support for the armada. The circumstance has marginally enhanced as of late.

Topic : Environment

Biodiesel body calls for lower state taxes

<http://www.thehindu.com/business/biodiesel-body-calls-for-lower-state-taxes/article17668118.ece>

Key Points :

- Industry is not pushing ahead because of the obstacle brought about by skewed expense rates, it says.
- High state charges on biodiesel are viably rendering the green fuel fundamentally more costly than standard diesel, as indicated by the Biodiesel Association of India, which additionally approached the focal government to proceed with the extract obligation exceptions for the part.
- The duties by the state government are high. When biodiesel is mixed with diesel, the assessments can go as high as 20-30% relying upon the state government. The biodiesel itself moves toward becoming ₹ 7-8 more costly than diesel in light of the duty component.
- Utilizing biodiesel can decrease hydrocarbon utilization by just about 80%, and particulate matter outflows can be lessened by 38-40%, and there is no sulfur emanations.

Topic : Science and Technology

Google to bring artificial intelligence into daily life

<http://www.thehindu.com/business/Industry/google-to-bring-artificial-intelligence-into-daily-life/article17668274.ece>

Key Points :

- Tech to help video seek, recognition of illness
- Manmade brainpower has been the mystery sauce for a portion of the greatest innovation organizations.
- Be that as it may, innovation mammoth Alphabet Inc's. Google is wagering enthusiastic about "democratizing" computerized reasoning and machine learning and making them accessible to everybody — clients, engineers and endeavors.
- From distinguishing and overseeing fatal illnesses, lessening mischance dangers to finding budgetary extortion, Google said that it planned to enhance the personal satisfaction by bringing passage hindrances down to utilizing these advances.
- These innovations would likewise increase the value of self-driving autos, Google Photos' hunt capacities and even Snapchat channels that change over the pictures of clients into vivified pictures.

No programming

- AI expects to assemble machines that can recreate human insight forms, while Stanford University depicts machine learning as "the art of inspiring PCs to act without being unequivocally modified."
- Google is additionally meaning to utilize AI and machine figuring out how to convey social insurance to the underserved populace. It utilizes the force of PC based knowledge to distinguish bosom disease. It does this by instructing the calculation to scan for cell designs in the tissue slides, a similar way specialists audit slides.
- The Google Research Blog said this technique had achieved 89% precision, surpassing the 73% score for a pathologist with no time imperative.
- Google Research said that pathologists are in charge of looking into all the natural tissues obvious on a slide. In any case, there can be many slides per persistent. What's more, each slide comprises more than 10 gigapixels when digitized at 40 times amplification.
- Google nourishes a lot of data to its framework and after that shows it to look for examples utilizing 'profound taking in', a strategy to actualize machine learning.
- The group had before connected profound figuring out how to translate indications of diabetic retinopathy in retinal photos. The condition is the quickest developing reason for visual impairment, with near 415 million diabetic patients at hazard around the world.

Topic : Infrastructure

Power losses: technology to the rescue

<http://www.thehindu.com/todays-paper/tp-business/power-losses-technology-to-the-rescue/article17669369.ece>

Key Points :

- Specialist organizations are helping dissemination firms identify robbery and meter altering continuously.
- The high rates of transmission and appropriation misfortunes in India, up to 60% in a few states, have prompted a bounty of innovations developing to in any event address the non-specialized misfortunes happening because of influence burglary and meter altering.
- Organizations, for example, Omron, Sensus and even telephone handset creator Nokia have started operations in this segment — controlling conveyance organizations distinguish and address control robbery and meter altering progressively. Others have started work to lessen costs by empowering remote perusing of meters, getting rid of the requirement for a physical check at each meter area.
- Omron, for instance, has been building up a sensor that can be incorporated with meters, permitting the discovery of any kind of altering, be it physical (when the purchaser jars it with the expectation that the meter perusing will delay) or electromagnetic (where the buyer applies a charge in the region of the meter, which renders it briefly broken).
- A key purpose for the non-specialized misfortunes in power circulation is because of "snaring" or burglary utilizing a snare on the link and the subsequent redirection of power.
- Brilliant meters impart meter readings straightforwardly to power merchants, taking out the requirement for somebody to turn out and read meters – whether that is required for each bill, to change power retailers or to reconnect control when clients move house.
- "Smart meters can't be circumvent, and can be perused with the assistance of a remote gadget," he included. "Soon, we will have a correspondence link that can be controlled and worked through a focal office."

Practice Questions:

1. Corbett National Park is in which of the following states ?
 - a) Madhya Pradesh
 - b) Himachal Pradesh
 - c) Uttarakhand
 - d) Odisha

Answer : C

Topic : Environment

Type : Factual

Level : Easy

Explanation :

Jim Corbett National Park 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.

2. Consider the statements Dhruv helicopter:

1. Dhruv is a utility helicopter developed and manufactured by India's Hindustan Aeronautics Limited (HAL).
2. It is designed to meet the requirement of both military and civil operators.

Which of the above statements is/are correct ?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None

Answer : C

Topic : Defence

Type : Factual

Level : Medium

Explanation :

The HAL Dhruv is a utility helicopter developed and manufactured by India's Hindustan Aeronautics Limited (HAL). The development of the Dhruv was first announced in November 1984, and it was subsequently designed with assistance from MBB in Germany. The helicopter first flew in 1992; however, its development was prolonged due to multiple factors including the Indian Army's requirement for design changes, budget restrictions, and sanctions placed on India following the 1998 Pokhran-II nuclear tests.

The Dhruv entered service in 2002. It is designed to meet the requirement of both military and civil operators, with military variants of the helicopter being developed for the Indian Armed Forces, while a variant for civilian/commercial use has also been developed.

3. Who is the Chairman of Financial Stability and Development Council ?

- a) Governor of RBI
- b) Finance Minister

c) Prime Minister

d) Secretary to the Ministry of Finance

Answer : B

Topic : Economy

Type : Factual

Level : Easy

Explanation :

In pursuance of the announcement made in the Union Budget 2010–11 and with a view to strengthen and institutionalize the mechanism for maintaining financial stability and enhancing inter-regulatory coordination, Indian Government has setup an apex-level Financial Stability and Development Council (FSDC), vide its notification dated 30th December, 2010. The first meeting of the Council was held on 31st December, 2010.

The Chairman of the FSDC is the Finance Minister of India and its members include the heads of the financial sector regulatory authorities (i.e, SEBI, IRDA, RBI, PFRDA and FMC) , Finance Secretary and/or Secretary, Department of Economic Affairs (Ministry of Finance), Secretary, (Department of Financial Services, Ministry of Finance) and the Chief Economic Adviser.

4. Consider the statements about National Policy on Biofuels.

1. Bio-diesel production will be taken up from non-edible oil seeds in waste /degraded / marginal lands.

2. Minimum Support Price (MSP) for non-edible oil seeds would be announced with periodic revision to provide fair price to the growers.

Which of the above statements is/are incorrect ?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None

Answer : D

Topic : Environment

Type : Conceptual

Level : Medium

Explanations :

Both the statements are correct.

Bio-fuels provide a strategic advantage to promote sustainable development and to supplement conventional energy sources in meeting the rapidly increasing requirements for transportation fuels associated with high economic growth, as well as in meeting the energy needs of India's vast rural population. Bio-fuels can increasingly satisfy these energy needs in an environmentally benign and cost-effective manner while reducing dependence on import of fossil fuels and thereby providing a higher degree of National Energy Security. The Indian approach to bio-fuels is based solely on non-food feedstocks to be raised on degraded or wastelands that are not suited to agriculture, thus avoiding a possible conflict of fuel vs. food security.

The salient features of the National Policy on Bio-fuels are:-

- Bio-diesel production will be taken up from non-edible oil seeds in waste /degraded / marginal lands.
- An indicative target of 20% blending of bio-fuels, both for bio-diesel and bio-ethanol, by 2017 has been proposed.
- Minimum Support Price (MSP) for non-edible oil seeds would be announced with periodic revision to provide fair price to the growers.
- Minimum Purchase Price (MPP) for purchase of bio-ethanol and bio-diesel would be announced with periodic revision.
- Major thrust will be given to research, development and demonstration with focus on plantations, processing and production of bio-fuels, including Second Generation Bio-fuels.
- Financial incentives, including subsidies and grants, may be considered for second generation bio-fuels. If it becomes necessary, a National Bio-fuel Fund could be considered.
- A National Biofuel Coordination Committee, headed by the Prime Minister, will be set up to provide policy guidance and coordination.
- A Biofuel Steering Committee, chaired by Cabinet Secretary, will be set up to oversee implementation of the Policy.

5. UDAY scheme is often in news. This is with reference to which of the following ?

- a) Employment scheme for women
- b) Skill development scheme for North East students
- c) Power sector reforms
- d) None

Answer : C

Topic : Infrastructure

Type : Factual

Level : Medium

Explanation :

Ujwal DISCOM Assurance Yojana (UDAY) is the financial turnaround and revival package for electricity distribution companies of India (DISCOMs) initiated by the Government of India with the intent to find a permanent solution to the financial mess that the power distribution is in. It allows state governments, which own the discoms, to take over 75 percent of their debt as of September 30, 2015, and pay back lenders by selling bonds. Discoms are expected to issue bonds for the remaining 25 percent of their debt.

GS Paper 1

Topic : Social Issues

Suicide no more a crime

<http://www.thehindu.com/todays-paper/suicide-no-more-a-crime/article17692228.ece>

Key Points :

- The Mental Healthcare Bill, which decriminalizes suicide and ensures the privilege to better human services for individuals with dysfunctional behavior, was consistently passed in the Lok Sabha on Monday.
- The Bill orders that a man endeavoring suicide might be dared to experience the ill effects of "extreme anxiety" and, along these lines, should not be attempted or rebuffed by law. Encourage, the new Bill commands that people with self-destructive propensities be given assistance and restored.
- The Bill additionally guarantees free treatment for such people in the event that they are destitute or fall underneath the neediness line, regardless of the possibility that they don't have a BPL card. The Bill unmistakably characterizes dysfunctional behavior including that the prior definition, under Mental Helath Act 1987 was unclear.

GS Paper 2

Topic :Polity

SC counters push for Aadhaar

<http://www.thehindu.com/todays-paper/sc-counters-push-for-aadhaar/article17692217.ece>

Key Points :

- Countering the administration push to make Aadhaar obligatory for access to social welfare plots, the Supreme Court on Tuesday said acquiring the 12-digit Unique Identification number, which requires the holder to part with his own profile metric information, and utilizing it to profit himself of government appropriation was an intentional exercise.
- The court's perceptions takes after a progression of late government brochures making Aadhaar obligatory to get to welfare plans like Mahatma Gandhi National Rural Employment Guarantee Scheme and Employees Pension Scheme. The legislature has made Aadhaar obligatory for recipients, numerous from the poorest of poor people, in spite of a Constitution Bench of the court coordinating the administration in October 2015 that a subject can't be constrained to have Aadhaar as a pre-condition to get to Centrally supported welfare plans.

- To put it plainly, the court had made it clear that the legislature was not allowed to separate between a man who has the Aadhaar card and one who does not.
- In any case, a Bench drove by Chief Justice of India J.S. Khehar on Tuesday found no blame with the administration's decision to make Aadhaar compulsory for "non-welfare" exercises like opening a financial balance or recording Income Tax returns or applying for a portable association.

Topic :Polity

Find alternatives to pellet guns: SC Bench reminds govt. that it is a 'welfare state' meant to protect all without causing harm to none

<http://www.thehindu.com/todays-paper/tp-national/find-alternatives-to-pellet-guns-sc/article17692104.ece>

Key Points :

- Reminds govt. that a 'welfare state' is meant to protect all with harm to none.
- Reminding the government that it is a 'welfare state' meant to protect all without causing harm to none, the Supreme Court on Monday asked the Centre to come up with alternatives to pellet guns used by security forces against agitators and stone-pelting mobs on the streets of Jammu and Kashmir.

Topic : International Relations

India disproportionately benefits from H-1B scheme

<http://www.thehindu.com/news/international/india-disproportionately-benefits-from-h-1b-scheme/article17688961.ece>

Key Points :

- Indian organizations and specialists are excessively picking up from the present technique for distribution of H-1B visas and this is a twisting of the program, said a U.S administrator at the cutting edge of a continuous battle against charged manhandle of the visa program.
- The present arrangement of choosing H-1B visa beneficiaries is neither reasonable nor effective, and it must be supplanted, said Congressman Darrell Issa, who has as of late acquainted a Bill that proposes with raise the base compensation of H-1B representatives to \$1,00,000 every year from the present level of \$60,000.

GS Paper 3

Topic : Economy

Nod for 101 cold chain projects Leveraging Rs 3,100 crore investment will boost food processing sector

<http://www.thehindu.com/business/Industry/nod-for-101-cold-chain-projects/article17684361.ece>

Key Points :

- The Center has endorsed 101 new incorporated icy chain extends that will use an aggregate speculation of Rs. 3,100 crore for formation of present day foundation for the sustenance preparing segment.
- The ventures, which will be produced by organizations including Balmer Lawrie, Sterling Agro and Haldiram Snacks, are gone for multiplying ranchers' wage, diminishing wastage in the agri-store network and making immense work openings.
- The plan of cold chain and esteem expansion framework gives monetary help of up to RS10 crore for business people. Ms. Badal said in regards to 2.6 lakh agriculturists would profit by these tasks including they will likewise give work to 60,000 individuals.

Cold chain network

- India is one of the biggest sustenance makers on the planet and the second biggest maker of products of the soil yet just 2.2% of our leafy foods are handled, as per an announcement from the legislature.
- Existing frosty stockpiles are gathered in a couple States and approximately 80% to 90% are utilized for potatoes, the announcement said.

‘Digital platform to help railways save RS60,000 crore’

<http://www.thehindu.com/business/Industry/digital-platform-to-help-railways-save-60000-crore/article17684468.ece>

Key Points :

- Whole operations can be observed on a solitary stage.
- Indian Railways will put about Rs 12,000 crore in building up a typical computerized stage for incorporating data from every one of its areas of expertise prompting investment funds of about Rs. 60,000 crore.

- In the last Rail Budget, Railway serve had declared an Enterprise Resource Planning framework that will be an IT-based stage for framework wide incorporation and arranging.
- 'One ICT' will cover every one of the parts of the Indian Railways, including cost examination, participation, bookkeeping, resource administration, therapeutic administration and land administration.
- Better limit and resource use would help the railroads run more prepares, convey more cargo, give better and solid administrations to travelers, increment its incomes and make its operations more protected.

Working to bring petroleum under GST, says Petroleum Minister

<http://www.thehindu.com/business/ministry-working-to-bring-petroleum-under-gst-pradhan/article17684473.ece>

Key Points :

- Petroleum Minister Dharmendra Pradhan on Monday said his Ministry was working towards bringing petroleum under the Goods and Services Tax (GST) as it would profit the states.
- "This (the consideration of petroleum in GST) will profit the states likewise," Mr. Pradhan said amid an occasion to check the marking of the agreements granted to the fruitful bidders amid the first round of offering for the found little oil and gas fields.
- The Minister said he anticipated that oil costs would stay in the \$55–\$60 territory in the close term.

Online portal

- The Petroleum Minister additionally initiated a two-way online entry by the Directorate General of Hydrocarbons created to encourage contract administration and the redressal of inquiries.
- "The gateway will get rid of the requirement for thumping on the entryways of government authorities to discover the advance of different tasks," Mr. Pradhan said. "That is the dedication of the entry."

MCQs:

1. Consider the statements :
 - 1 GST bill is constitutional bill requiring assent of more than half of the states.
 - 2 It covers indirect taxes only and not direct taxes.

Which of the above statements is/are correct ?

- a) 1 only

- b) 2 only
- c) Both 1 and 2
- d) None

Answer : C

Topic : Economy

Type : Conceptual

Level : Medium

Explanation :

Goods and Services Tax (GST) is a proposed system of indirect taxation in India merging most of the existing taxes into single system of taxation. It was introduced as The Constitution (One Hundred and First Amendment) Act 2016.

GST bill is constitutional bill requiring assent of more than half of the states.

2. Digi Dhan Abhiyan is launched by which of the following ministry ?

- a) The Ministry of Electronics and IT
- b) The Ministry of Finance
- c) The Ministry of Corporate Affairs
- d) None

Answer : A

Topic : Economy

Type : Factual

Level : Medium

Explanation :

The Union IT Minister Ravishankar Prasad has recently launched “Digidhan Abhiyan” to enable every citizen, small traders and merchants to adopt digital payments in their everyday financial transactions. During the campaign, citizens will be informed about various modes of digital payments by educating them to download, install and transact digital payments.

3. Recently H1-B scheme is in news. Which country has brought this bill ?

- a) Canada
- b) Australia
- c) The U.K.
- d) The U.S.A.

Answer: D

Topic : International Relations

Type : Factual

Level : Easy

Explanation :

The H-1B is a non-immigrant visa in the United States under the Immigration and Nationality Act, section 101(a)(17)(H). It allows U.S. employers to temporarily employ foreign workers in specialty occupations. If a foreign worker in H-1B status quits or is dismissed from the sponsoring employer, the worker must either apply for and be granted a change of status to another non-immigrant status, find another employer (subject to application for adjustment of status and/or change of visa), or leave the U.S. Effective January 17, 2017, USCIS modified the rules to allow a grace period of up to 60 days.

4. Consider the statements about the Mental Healthcare Bill 2016.
 1. The bill ensures every person shall have a right to access mental health care and treatment from mental health services run or funded by the appropriate government.
 2. One of the clauses in the bill decriminalises suicide, stating that a person who attempts suicide should be presumed to have severe stress, and shall not be punished.

Which of the above statements is/are correct ?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None

Answer : C

Topic : Social Issues

Type : Conceptual

Level : Medium

Explanation :

The Mental Healthcare Bill 2016 provides for mental healthcare and services for persons with mental illness, and also decriminalises suicide.

The bill ensures every person shall have a right to access mental health care and treatment from mental health services run or funded by the appropriate government. It also assures free treatment for such persons if they are homeless or poor, even if they do not possess a Below Poverty Line card.

One of the clauses in the bill decriminalises suicide, stating that a person who attempts suicide should be presumed to have severe stress, and shall not be punished.

G.S. Paper -2

Topic: Polity and Federalism

1. GST: Pooling sovereignty, promoting federalism

<http://www.livemint.com/Opinion/sEpW2DhMzw2SOguwLmUrKM/GST-Pooling-sovereignty-promoting-federalism.html>

Impact of GST law:

- The GST administration has made an institutional and Constitutional system for helpful federalism in the field of aberrant tax assessment.
- Limited the energy of Lok Sabha, in light of a legitimate concern for federalism, and approved a pooling of sway in tax collection matters with 32 state and Union domain lawmaking bodies.
- Neither the Parliament all alone nor the state lawmaking bodies exclusively or together can supersede the aggregate suggestions of the GST Council.
- In the GST administration, the Union and the states will be vested with simultaneous forces to require GST on intra-state supply of products and ventures and the union will be vested with the restrictive energy to collect GST on the supply of merchandise and enterprises throughout between state exchange or business which incorporates supply over the span of imports into the region of India.
- There will be a State GST (SGST) and a Central GST (CGST) for intra-state supplies and an Integrated GST (IGST) for between state supplies. There will be separate laws for forcing these duties. SGST Act must be ordered by each state and CGST Act and IGST Act must be established by the Parliament.
- Taxes on oil(petroleum) based goods and liquor have been kept out of the GST net.

Path forward:

- Create and expand a comparable system in different fields of financial federalism.
- Rejuvenating the Inter State Council, which is a Constitutional body set up on the premise of arrangements in Article 263 of the Constitution. The body was framed by a Presidential Order on suggestion of the Sarkaria Commission. It is the Council's mandate to discuss all manner of policies, and subjects of common interest.

Topic: Effect of policies and politics of developed and developing countries on India's interests

2. China to fund local elections in Nepal

<http://www.thehindu.com/todays-paper/tp-international/china-to-fund-local-elections-in-nepal/article17741168.ece>

What's in news?

- China has extended financial support to Nepal for holding local-level elections.
- First time Nepal will hold local polls since the return of democracy a decade ago.
- This move is opposed by Madhesi people.

Topic: Issues related to health.

3. The modern way

<http://www.thehindu.com/todays-paper/tp-opinion/the-modern-way/article17741148.ece>

- Recently Lok Sabha passed Mental Health Care Bill, within it involves series of provisions to cater to the needs of mentally imbalanced individuals.
- **Areas to be focused upon-**
 - ✓ India is having inadequate base of professionals to the tune of 0.3 psychiatrists for 100,000 people (China – 1.7) to handle mentally unsound people.
 - ✓ Trained clinical psychologist and psychiatric social workers availability is minimal.
 - ✓ Funding of National Mental Health Programme under health budget.
 - ✓ Raising effective primary and district level coverage of mental health services, without requiring people to travel long distances to see a specialist and get medicines.
 - ✓ Primary health care physicians to be trained to handle cases of mild and severe forms- anxiety disorders , depression, alcohol and substance abuse.
- **Important noteworthy provisions:**
 - ✓ Recognising the right to medical treatment, decriminalisation of attempted suicide, explicit acceptance of agency of people with mental illness and their freedom to choose treatments, prohibition of discrimination and regulation of establishments working in the field.
 - ✓ Prohibiting seclusion of patients and prohibiting general use of electro-convulsive therapy.
 - ✓ Treatment approach to rely more on family and community support.

G.S. Paper -3

Topic: Environmental Science and Ecology

1. Supreme Court bans sale of BS-III vehicles from April 1

<http://www.thehindu.com/news/national/sc-orders-freeze-on-sale-registration-of-bs-iii-vehicles-from-april-1/article17728104.ece>

What's in news?

- SC orders -solidify on the enrollment and offer of BS-III fuel protestation vehicles by any producer or merchants from April 2017.
- BS-III complaint poses serious health hazards.
- From April 1, 2017 onwards BS-IV norms kicks in.

2. Early shift to renewables needed to save climate: IRENA

<http://www.thehindu.com/todays-paper/tp-national/tp-andhrapradesh/early-shift-to-renewables-needed-to-save-climate-irena/article17741223.ece>

What's in news?

- International Renewable Energy Agency (IRENA)- new discoveries - Countries over the world should concentrate on quickened arrangement of sustainable power source and vitality proficiency measures to accomplish decrease in carbon emanations basic to keeping worldwide temperature ascend to close to two degree Celsius and staying away from the most extreme effects of environmental change
- IRENA gauges that worldwide carbon emanations can be lessened by 70% by 2050 and totally eliminated by 2060.
- The report additionally stresses the significance of considering the requirements of those without vitality get to.
- The contemplate stresses the requirement for fast development in sunlight based and wind control era, in blend with empowering networks, and new working practices.
- It additionally underlines the need to advance electric vehicles and fluid biofuel creation and to prepare an aggregate of 2 billion structures over the world with vitality proficiency measures.

Key Fact:

- India races to meet its objective of 175 GW of energy from inexhaustible by 2020.
- Renewable vitality now represents 24% of worldwide power era and 16% of essential vitality supply.

Decarbonization:

- The concentrate must be on decarbonisation of the worldwide vitality framework as it records for just about 66% of ozone harming substance discharges

- To accomplish decarbonization, by 2050, renewable ought to be 80% of energy era and 65% of aggregate essential vitality supply.

Basic Information:

- International Renewable Energy Agency (IRENA): The International Renewable Energy Agency (IRENA) is an intergovernmental association to advance reception and practical utilization of sustainable power source. The organization is headquartered in Abu Dhabi.
- **Aim:** Acting as the worldwide voice for sustainable power sources, IRENA will give handy guidance and support to both industrialized and creating nations, help them enhance their administrative systems and manufacture limit. The organization will encourage access to all important data including dependable information on the capability of sustainable power source, best practices, successful budgetary

Terms in news:

- **Bambi bucket:** A bambi bucket is a specialised bucket suspended on a cable carried by a helicopter to deliver water for aerial firefighting. Each bucket has a release valve on the bottom which is controlled by the helicopter crew. When the helicopter is in position, the crew releases the water to extinguish or suppress the fire below. Each release of the water is referred to as a drop.

Miscellaneous:

1. Jugglery of numbers over defence purchases?

<http://www.thehindu.com/todays-paper/tp-national/data-jugglery-over-arms-purchases/article17741215.ece>

The Stockholm International Peace Research Institute –Report

- ✓ India is the biggest merchant of military hardware in the world, representing 13% of the aggregate worldwide arms imports in the vicinity of 2012 and 2016. More than both China and Pakistan's.
- ✓ The report calls attention to that India expanded its arms imports by 43% between 2007-11 and 2012-16.

Articles in news:

Article 263:Provisions with respect to an inter State Council : If any any time it appears to the President that the public interests would be served by the establishment of a Council charged with the duty of

- (a) inquiring into and advising upon disputes which may have arisen between States;
- (b) investigating and discussing subjects in which some or all of the States, or the Union and one or more of the States, have a common interest; or
- (c) making recommendations upon any such subject and, in particular, recommendations for the better co ordination of policy and action with respect to that subject, in shall be lawful for the **President by order to establish such a Council**, and to define the nature of the duties to be performed by it and its organisation and procedure
- PART XII FINANCE, PROPERTY, CONTRACTS AND SUITS CHAPTER I
FINANCE General

Practice questions:

1. Consider the following statement with reference to Inter State Council
 1. It is a constitutional body
 2. It is a statutory body
 3. It is established by Parliament
 4. It is established by President.
 5. Prime Minister is the chairman
 6. Home minister is the chairman

Choose the correct answer

- A. 1,3 and 6
- B. 1,4 and 6
- C. 1,4 and 5
- D. 2,3 and 4

Correct Answer: C

Topic: Polity

Level: Easy

Explanation:

Article 263:Provisions with respect to an inter State Council : If any any time it appears to the President that the public interests would be served by the establishment of a Council charged with the duty of

- (a) inquiring into and advising upon disputes which may have arisen between States;
- (b) investigating and discussing subjects in which some or all of the States, or the Union and one or more of the States, have a common interest; or

(c) making recommendations upon any such subject and, in particular, recommendations for the better co ordination of policy and action with respect to that subject, in shall be lawful for the **President by order to establish such a Council**, and to define the nature of the duties to be performed by it and its organisation and procedure PART XII FINANCE, PROPERTY, CONTRACTS AND SUITS CHAPTER I FINANCE General.

Members: The Inter State Council composes of the following members:

Prime Minister, Chairman.

Chief Ministers of states and union territories.

Administrators of union territories.

Six members of Cabinet rank.

2. Consider the following statement with reference to International Renewable Energy Agency (IRENA)
1. It is a UN agency
 2. The International Renewable Energy Agency (IRENA) is an intergovernmental association.
 3. IRNEA is headquartered in Abu Dhabi.

Choose the correct answer

- A. 1 and 3
- B. 2 and 3
- C. Only 2
- D. None of the above

Correct Answer: B

Topic: Current affairs

Level: Moderate

Explanation: International Renewable Energy Agency (IRENA): The International Renewable Energy Agency (IRENA) is an intergovernmental association to advance reception and practical utilization of sustainable power source. The organization is headquartered in Abu Dhabi.

3. Consider the following statements :

1. The Securities and Exchange Board of India (SEBI) is the regulator for the securities market in India.
2. SEBI is a statutory body.

Which of the above statements is/are correct ?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None

Answer : C

Topic: Regulator

Type : Factual

Level : Medium

Explanation : The Securities and Exchange Board of India (SEBI) is the regulator for the securities market in India. It was established in the year 1988 and given statutory powers on 30 January 1992 through the SEBI Act, 1992.

4. Consider the following statements :

1. Bharat stage emission standards' are emission standards instituted by the Government of India to regulate the output of air pollutants from internal combustion engine equipment, including motor vehicles.
2. The standards and the timeline for implementation are set by the Central Pollution Control Board.

Which of the above statements is/are correct ?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None

Answer : C

Topic : Environment

Type : Factual

Level : Medium

Explanation : Bharat stage emission standards' are emission standards instituted by the Government of India to regulate the output of air pollutants from internal combustion engine equipment, including motor vehicles. The standards and the timeline for implementation are set by the Central Pollution Control Board under the Ministry of Environment & Forests and climate change.

The standards, based on European regulations were first introduced in 2000. Progressively stringent norms have been rolled out since then. All new vehicles manufactured after the implementation of the norms have to be compliant with the regulations. Since October 2010, Bharat Stage (BS) III norms have been enforced across the country. In 13 major cities, Bharat Stage IV emission norms have been in place since April 2010. In 2016, the Indian government announced that the country would skip the BS-V norms altogether and adopt BS-VI norms by 2020.

G.S. Paper -2

Topic: Issues related to management and development of Social security

1. Board moots EPF for unorganised sector

<http://www.thehindu.com/business/board-moots-epf-for-unorganised-sector/article17745397.ece>

What's in news?

- The Central Board of Trustees (CBT) of the Employees' Provident Fund Organization (EPFO) prescribed to the Center to stretch out government managed savings advantages to more than 61 lakh laborers in unorganized sector.
- Recommended advantages to the volunteers of various schemes i.e. Anganwadi, ASHA, Mid-day Meal Workers under the ambit of EPFO.
- The EPFO has proposed to the Labour Ministry that a lower contributory rate of 10% of income towards the Employees' Provident Fund be allowed for scheme workers as against 12% contribution stipulated for the organised workers.
- At present there are about 14 lakh Anganwadi workers, 12 lakh Anganwadi helpers, 25.5 lakh mid-day meal workers and 10 lakh ASHA workers in the country.

Topic: Statutory, Regulatory and quasi-judicial bodies

2. FSSAI performance comes under CAG scanner

<http://www.livemint.com/Industry/cY1xaql7ddSvKxQb0ZsKkl/FSSAI-performance-comes-under-CAG-scanner.html>

What's in news?

- The Comptroller and Auditor General of India (CAG) is doing an extensive execution review of the nation's sustenance controller, FSSAI.
- CAG's review is taking a gander at issues, for example, how FSSAI fixes principles, settles directions, affirms items, guarantees consistence and behaviors observation.
- This is a genuinely exhaustive review and is being accomplished interestingly since the controller appeared.

Foundation:

The review of the Food Safety and Standards Authority of India (FSSAI) comes against the scenery of the sustenance controller's dubious choice to boycott assembling and offers of Maggi noodles—a mainstream nibble sold by Swiss organization Nestle in India—in 2015.

What was the issue?

- After the crackdown on Maggi, inquiries were raised on FSSAI's abilities and operations including things like item endorsement handle, one of the essential things the controller used to do. The Bombay high court in July 2015 requested that FSSAI legitimize its activities against the noodle mark.
- On 13 August 2015, the Bombay high court put aside the boycott forced by FSSAI on Maggi noodles and asked Nestlé to retest tests at three labs confirmed by the National Accreditation Board for Testing and Calibration Laboratories (NABL).
- On 5 November, Nestlé India said its Maggi noodles got freedom from three research facilities affirmed by NABL and relaunched the famous nibble on 9 November 2015.

Criticalness of this move:

- A review like this will in the long run help the association improve its execution. It would discover the escape clauses, highlight what the controller ought to do to conceal those.

About FSSAI:

- FSSAI was set up in August 2011 under the Food Safety and Standard Act, 2006.
- It has forces to set down benchmarks for nourishment articles and to manage their assembling, stockpiling, conveyance, deal and import.
- Some of its exercises incorporate permitting and observation of nourishment and drinks outlets, authorization of wellbeing directions crosswise over enlisted sustenance sellers and guaranteeing security of imported sustenance things, their benchmarks and naming.

G.S. Paper -3**Topic: Disaster management****1. IMD trains states to deal with heatwaves as temperatures rise**

<http://www.livemint.com/Politics/CWEv76gXxC7PImyMMGoLuJ/IMD-trains-states-to-deal-with-heatwaves-as-temperatures-ris.html>

- Foreseeing a basic move in the nation's climate, the India Meteorological Department (IMD) is preparing state governments to enhance their moderation readiness to adapt to the constant heatwaves.

What's being finished?

- IMD has tied up with state disaster management commissioners and health secretaries to detail arrangements even with substantial setbacks from heatwave conditions. The National Disaster Management Authority (NDMA), on its part, has arranged a standard working methodology layout and a succession of activities to be activated amid an extreme heatwave.

What requires this move?

Temperatures crosswise over India have been ascending on a normal of 0.7 degrees consistently, as indicated by IMD, with 2016 the most sizzling up until now.

- Heatwave rules will encourage the partners in setting up a heatwave administration and activity arrangement by giving understanding into the warmth related sicknesses and the essential mitigative and reaction moves to be made.
- It will help in preparing and planning different divisions, people and groups to ensure themselves against avoidable medical issues amid spells of exceptionally hot climate.

What are heatwaves?

- **While there are subtleties and district particular contrasts, the IMD extensively characterizes a warmth wave as when a place's temperature is 5-6 degrees above ordinary.**
- They are generally characterized as conditions activated by the temperature ascending to more than 45 degrees Celsius. At the point when temperatures take off over 47 degrees Celsius, it is known as an extreme heatwave.

Who will be affected?

- The general population most influenced by heatwaves are the destitute, ranchers, policemen, development laborers, postmen and vegetable merchants—i.e, the individuals who live or work outside. Extreme heatwave conditions in the past have brought about school and school excursions being expanded.
- The wellbeing effects of Heat Waves regularly include drying out, warmth issues, warm fatigue or potentially warm stroke. The signs and side effects are as per the following:
- Warm Cramps: Edema (swelling) and Syncope (Fainting) for the most part joined by fever beneath 39 degC i.e. 102 degF.

- Warm Exhaustion: Fatigue, shortcoming, wooziness, cerebral pain, sickness, retching, muscle issues and sweating.
- Warm Stoke: Body temperatures of 40°C i.e. At least 104°F alongside incoherence, seizures or unconsciousness. This is a potential lethal condition.

Topic: Economics infrastructure

2. India becomes net exporter of power for the first time

<http://www.livemint.com/Industry/KdUj7tUmfE0nCGCFfiS2eO/India-becomes-net-exporter-of-power-for-the-first-time.html>

What's in news?

- According to Central Electricity Authority, the Designated Authority of Government of India for Cross Border Trade of Electricity, first time India has pivoted from a net shipper of power to Net Exporter of power.
- Amid the present year 2016-17 (April to February 2017), India has sent out around 5,798 Million Units to Nepal, Bangladesh and Myanmar which is 213 Million units more than the import of around 5,585 Million units from Bhutan. Fare to Nepal and Bangladesh expanded 2.5 and 2.8 times separately in most recent three years.

Import of energy:

- As far back as the cross fringe exchange of power began in mid-Eighties, India has been bringing in power from Bhutan and insignificantly trading to Nepal in spiral mode at 33 kV and 132 kV from Bihar and Uttar Pradesh. On a normal Bhutan has been providing around 5,000-5500 Million units to India.

Fare of energy:

- India has been sending out around 190 MW energy to Nepal more than 12 cross outskirts interconnections at 11kV, 33kV and 132 kV level. The fare of energy to Nepal additionally expanded by around 145 MW with dispatching of Muzaffarpur (India)– Dhalkhebar(Nepal) 400kV line (being worked at 132 kV) in 2016.
- Fare of energy to Bangladesh from India got further lift with dispatching of first cross fringe Interconnection between Baharampur in India and Bheramara in Bangladesh at 400kV in September 2013. It was additionally increased by appointing of second cross fringe Interconnection between Surjyamaninagar (Tripura) in India and South Comilla in Bangladesh. At present around 600 MW power is being sent out to Bangladesh.

- Fare of energy to Nepal is relied upon to increment by around 145 MW in no time more than 132 kV Katiya (Bihar)– Kusaha (Nepal) and 132 kV Raxaul (Bihar)– Parwanipur (Nepal).

Basic Information:

About Central Electricity Authority:

- The Central Electricity Authority of India (CEA) is a statutory association constituted under segment 3(1) of Electricity Supply Act 1948, which has been superseded by segment 70(1) of the Electricity Act 2003. The CEA prompts the administration on matters identifying with the National Electricity Policy and figures here and now and viewpoint anticipates the advancement of power frameworks.
- Under the Electricity Act 2003, CEA endorses the benchmarks on matters, for example, development of electrical plants, electric lines and availability to the framework, establishment and operation of meters and wellbeing and matrix measures.
- The CEA is likewise in charge of simultaneousness of hydro power advancement plans of focal, state and private divisions thinking about the elements which will bring about proficient improvement of the waterway and its tributaries for power era, reliable with the necessity of drinking water, water system, route and surge control.

Topic: Internal Security

3. Chinese city announces punishments for VPN users

<http://telecom.economictimes.indiatimes.com/news/chinese-city-announces-punishments-for-vpn-users/57908485>

What's in news?

- Southwest China's Chongqing Municipality, the most crowded and furthermore the biggest direct-controlled region, has declared another direction to rebuff unapproved Internet associations outside China's Great Firewall (GF) utilizing VPNs by people in the locale.

Key realities:

- The new direction intends to reinforce China's control of law and the internet security.
- Under the new standards, if an individual gets to global system secretly or by means of "unlawful channels," or offers related administrations without authorisation, they could be fined up to 15,000 yuan (\$2,178). The individuals who disregard the control to make benefits would be fined and their increases appropriated as needs be.

What is China's Great Firewall?

- The GF is worked throughout the years by China to control the Internet content and confine access to all the restricted substance including access to worldwide online networking locales like Twitter, Facebook, Youtube and Google.

What required this move?

- There are 700 million Internet clients in China, the greater part of its populace, and Internet news coursed by web-based social networking stages like Weibo has turned out to be more prevalent than the state-controlled predominant press making the decision Communist Party of China (CPC) to reinforce controls on the Internet to guarantee that its syndication over power is not tested.
- While VPNs are utilized generally by strategic and remote media in China to get to overall Internet, the unique applications intended to beat the GF being advertised by a few Internet firms abroad are getting to be plainly mainstream among Chinese as well.
- Likewise, China pitches for "digital sway" moving far from worldwide Internet.

Topics: Energy infrastructure

4. UDAY helps reduce subsidy dependence of power discoms

http://www.business-standard.com/article/economy-policy/uday-helps-reduce-subsidy-dependence-of-power-discoms-117032901017_1.html

- Source: A report discharged by the Rural Electrification Corporation (REC)
- **What?**
Ujwal Discom Assurance Yojana (UDAY), has helped discoms diminish their endowment reliance on state governments
- **How?**
Because of enhanced liquidity position
- **Certainties:**
 - ✓ State-claimed control appropriation organizations of Rajasthan, Haryana, Andhra Pradesh, Chhattisgarh, Madhya Pradesh and Bihar have lessened their endowment, booked as rate of the income, in the scope of 5-10 for every penny in the current money related year
 - ✓ States like Andhra Pradesh, Bihar, Assam, Haryana and Jharkhand diminished power buy cost up to 35 paise, 16 paise, 12 paise, 10 paise and 8 paise per unit, individually, in the October-December quarter of 2016-17, contrasted with a similar period the earlier year

Basic Information:

UDAY is a vital plan for the power area and for India. India has all that could possibly be needed power creating ability to offer energy to everybody. In any case, conveyance organizations regularly don't have the cash to purchase this power and supply it to clients. The poor money related state of discoms is because of reasons, for example, political impedance (e.g. free power for ranchers), burglary and so on. UDAY is intended to right this circumstance, and as indicated by reports, it is succeeding. Tap on the UDAY Scheme for Discoms story to peruse the Backgrounder and past news.

Rural Electrification Corporation Limited

- ✓ It is a Navratna Company, working under the domain of the Ministry of Power
- ✓ A main open Infrastructure Finance Company in India's energy part
- ✓ Funds and advances rustic charge extends crosswise over India
- ✓ Gives advances to Central/State Sector Power Utilities, State Electricity Boards, Rural Electric Cooperatives, NGOs and Private Power Developers
- ✓ Recorded on both National Stock Exchange and Bombay Stock Exchange
- ✓ Presently, among the main 500 Global Financial Services marks by UK-based plc Brand Finance

Miscellaneous:

1. New accident recording format

<http://www.thehindu.com/todays-paper/tp-national/new-accident-recording-format/article17741929.ece>

What's in news?

- Another Road Accident Data Recording and Reporting Format has been taken off by the Ministry of Road Transport and Highways (MoRTH) with a view to drawing nearer towards a precise, predictable, and target street mishap database.
- The far reaching recording and announcing organization, to be executed by all States and Union Territories, is gone for drawing out the fundamental genuine reason for the street mischance so partners can make remedial and preventive strides.

About the new configuration:

- The recording configuration, to be filled in by the police at the site of the mishap, has five segments particularly to record essential information on

street mischances (and not to supplant the FIR), catching the real conditions of the mishap.

- The five segments are: mischance distinguishing proof subtle elements, street related points of interest, vehicles required in mishap, driver's points of interest, and people other than drivers required in mishap.
- Upwards of 55 lists, including climate condition, GPS area, surface state of street, street sort, speed restrain, perceivability at the season of mischance, physical divider, progressing street works, and utilization of security gadget, have been consolidated in the new recording structure.
- The new organization will help in discovering genuine cause, help intensive examination and execute street wellbeing measures in mischance destinations.

Path ahead:

- Chief Secretaries and State Police Chiefs have been made a request to find a way to outfit the street mishap points of interest in the new organization from this schedule year.

Articles in news

1. Article 142. Enforcement of decrees and orders of Supreme Court and unless as to discovery, etc

(1) The Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it, and any decree so passed or orders so made shall be enforceable throughout the territory of India in such manner as may be prescribed by or under any law made by Parliament and, until provision in that behalf is so made, in such manner as the President may by order prescribe
(2) Subject to the provisions of any law made in this behalf by Parliament, the Supreme Court shall, as respects the whole of the territory of India, have all and every power to make any order for the purpose of securing the attendance of any person, the discovery or production of any documents, or the investigation or punishment of any contempt of itself

2. Article 13. Laws inconsistent with or in derogation of the fundamental rights

(1) All laws in force in the territory of India immediately before the commencement of this Constitution, in so far as they are inconsistent with the provisions of this Part, shall, to the extent of such inconsistency, be void
(2) The State shall not make any law which takes away or abridges the rights conferred by this Part and any law made in contravention of this clause shall, to the extent of the contravention, be void
(3) In this article, unless the context otherwise requires law includes any Ordinance, order, bye law, rule, regulation, notification, custom or usages

having in the territory of India the force of law; laws in force includes laws passed or made by Legislature or other competent authority in the territory of India before the commencement of this Constitution and not previously repealed, notwithstanding that any such law or any part thereof may not be then in operation either at all or in particular areas

(4) Nothing in this article shall apply to any amendment of this Constitution made under Article 368 Right of Equality

3. Article 25. Freedom of conscience and free profession, practice and propagation of religion

(1) Subject to public order, morality and health and to the other provisions of this Part, all persons are equally entitled to freedom of conscience and the right freely to profess, practise and propagate religion

(2) Nothing in this article shall affect the operation of any existing law or prevent the State from making any law

(a) regulating or restricting any economic, financial, political or other secular activity which may be associated with religious practice;

(b) providing for social welfare and reform or the throwing open of Hindu religious institutions of a public character to all classes and sections of Hindus
Explanation I The wearing and carrying of kirpans shall be deemed to be included in the profession of the Sikh religion

Explanation II In sub clause (b) of clause reference to Hindus shall be construed as including a reference to persons professing the Sikh, Jaina or Buddhist religion, and the reference to Hindu religious institutions shall be construed accordingly

Schemes in news

RASHTRIYA MADHYAMIK SHIKSHA ABHIYAAN

Vision

- The vision for secondary education is to make **good quality education available, accessible and affordable** to all young persons in the **age group of 14-18 years**. With this vision in mind, the following is to be achieved
- To provide a **Secondary school within 5 kms and Higher Secondary school within 7-10 kms**
- Ensure **universal access of secondary education by 2017 and Universal retention by 2020**
- Providing access to **secondary education with special references to economically weaker sections of the society**, the educationally backward, the girls and the disabled children residing in rural areas and other marginalized categories like SC,ST,OBC and Educationally Backward Minorities

Objectives

- To ensure that all secondary schools have physical facilities, staffs and supplies at least according to the prescribed standards through financial support in case of Government /Local Body and Government Aided Schools and appropriate regulatory mechanism in the case of other schools
- To improve access to secondary schooling to all young persons according to norms-through proximate location(say Secondary school within 5 kms and HSS within 7-10 kms),efficient and safe transport arrangements /residing facilities, depending on local circumstances including open schooling. However in hilly and difficult areas these norms can be relaxed. Preferably residential schools may be set up in such areas
- To ensure that no child is deprived of secondary education of satisfactory quality due to gender, socio economic, disability and other barriers
- To improve quality of secondary education resulting in enhanced intellectual, social and cultural learning
- To ensure that all students pursuing secondary education receive education of good quality
- Achievement of the above objectives would also, inter-alia, signify substantial progress in the direction of the common schooling system.

Practice questions:

1. 'MERCOSUR' is an economic and political bloc with which India has signed a Preferential Trade Agreement, and is looking to expand the scope of this agreement now. This bloc's 'full members' does NOT include
 - a) Argentina
 - b) Bolivia
 - c) Paraguay
 - d) Venezuela

Correct Answer: B

Topic: International Organizations and Regional groupings

Level : Moderate

2. Consider the following pairs:
 1. Free Trade Agreement – Tariff liberalisation on a limited number of lines
 2. Comprehensive Economic Partnership Agreement – An agreement which consists of an integrated package of agreement on, among others, Investments and Intellectual Property

Which of the above terminologies is/are correctly described?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Correct Answer: B

Topic: Economics

Level : Moderate

Explanation:

Preferential Trade Agreement – Tariff liberalisation on a limited number of lines;

Free Trade Agreement – Elimination of Tariffs on items covering substantial bilateral trade between the (FTA) partner countries;

Comprehensive Economic Partnership Agreement – CECA or CEPA or BTIA terms are used to describe Agreements which consist of an integrated package of Agreement on Goods, Services, Investment, Mutual Recognition, Intellectual Property, etc.

G.S.Paper-2

Topic: Polity

1. SC: Ban on liquor sale covers hotels, bars too

<http://www.thehindu.com/news/national/sc-ban-on-liquor-sale-covers-hotels-bars-too/article17753447.ece>

What's in news?

1. Supreme court upheld its earlier decision of prohibiting sale of liquor within a distance of 500 meters from the outer edge of National and State highways.
2. Supreme Court also ordered banning the sale of liquor at other establishments- includes bar-attached hotels, wine and beer parlors dotting highways.

3. Exemptions given :

- ✓ **Liquor-free zone:** New demarcation of 220m from the earlier 500m limit in areas with a population of 20,000 or less .
 - ✓ The court reiterated that liquor vends should neither be accessible nor visible from the highways. So in areas in Himachal Pradesh, liquor can be sold beyond outside 220m from the highways.
 - ✓ Extended deadline for phasing out the licenses to September 30,2017 for states (which have granted excise licenses which extends beyond April 1,2017)
 - ✓ Full exemption for North-eastern States of Sikkim and Meghalaya from the 500-m no-liquor zone ban.
Reason- hilly terrain and also the fact that 82 percent of its area was forest land and over 90 percent of its liquor shops would be closed if the ban was imposed strictly in its original form.
4. **Reasons for no-liquor zone** - The court said its duty to protect public health and safety clearly overrides the interests of liquor traders.

2. Gujarat to tighten cow slaughter law

<http://www.thehindu.com/news/national/other-states/gujarat-assembly-passes-bill-that-punishes-cow-slaughter-with-7-years-jail-term/article17749696.ece>

What's in news?

- First of its kind in the country, Gujarat government to amend its law (**The Gujarat Animal Preservation (Amendment) Bill**) to make cow slaughter an offence punishable with life term.
- Amendment provisions –
 - ✓ Punishment of maximum imprisonment up to life, but not less than 10 years, to those found involved in slaughter of cows, calves, bulls and bullocks.
 - ✓ Cow slaughter, transportation of cow or beef and beef products a cognisable and non-bailable offence.
 - ✓ The Bill also bans transportation of animals from one place to another at night while providing for permanent forfeiture of vehicles involved in the transportation of progeny of cows, beef and beef products.
 - ✓ Fine ranges between 1 to 5 lakh rupees for those found guilty of cow slaughter.

A stringent law

A look at the penal provisions of Gujarat's anti-cow slaughter bill, passed in the absence of opposition members

FOR THOSE GUILTY OF COW SLAUGHTER

- Prison term between 10 years and a life term
- Penalty amount ranges between ₹ 1 lakh and Rs ₹ 5 lakh

FOR THOSE TRANSPORTING BEEF PRODUCTS

- Prison term between 7 years and 10 years | Fine : ₹ 1 lakh to ₹ 5 lakh

States where there is no ban on cow slaughter:

Kerala, West Bengal, Arunachal Pradesh, Mizoram, Meghalaya, Nagaland, Tripura and Sikkim

3. Contractors to pay for bad roads

<http://www.thehindu.com/news/national/contractors-to-pay-for-bad-roads/article17753525.ece>

What's in news?

- **Motor Vehicles (Amendment) Bill**- Road contractors to pay out up to Rs.1 lakh per accidental death caused due to faulty road design and poor maintenance of the roads.
- Speedy settlement of insurance claims- The Bill also proposes settlement of insurance claims to family of a road accident victim within four months of the accident. It now takes at least four to five years for the claim settlement.
- Insurance claim amount has been reduced to 5 lakh.
- Aadhaar based verification for grant of online services, including learner's licence
- **Key fact:**
 - ✓ 10,000 people die in road accidents due to potholes, every year.
 - ✓ In 2015, 1.46 lakh people were killed in road accidents in India which translates into 400 road deaths per day — an increase by 4.6% from 2014.

4. CAG raps Meghalaya govt for failure to implement RTE

http://www.business-standard.com/article/pti-stories/cag-raps-meghalaya-govt-for-failure-to-implement-rte-117033100369_1.html

What's in news?

- The Comptroller and Auditor General (CAG) has rapped the Meghalaya government for its inability to execute the Right To Education Act, 2009, bringing about underutilisation of assets of over Rs 900 crore, shortage of nearly 1700 teachers and appointment of over 70 per cent untrained staff.
- **Report highlights: Identifying the lack of basic infrastructure as one of the factors hindering universalization of elementary education**
- **Key Facts: (No need to mug it up, just for understanding the core issue):**
 - ✓ Shortage of 1,748 teachers in primary schools
 - ✓ 224 primary schools having only one teacher for 7,769 children enrolled.
 - ✓ Untrained appointed teachers - 77 per cent of primary school teachers and 85 per cent of upper primary school.
 - ✓ 68 schools - no science and maths teacher.
 - ✓ Shortages of uniform grant and non-availability of free textbooks
 - ✓ Annual plans were made without adopting participatory approach at the village/habitation level.
 - ✓ Provision of reserving 25 per cent for children belonging to weaker sections and disadvantaged groups was not being implemented.
 - ✓ Children with special needs and dropouts did not receive special care and attention
 - ✓ Government has failed to contain the existing dropout rate of six per cent.
- **Way forwards:**
 - ✓ Enrolment of children and universalization of elementary education by covering all the eligible children should be ensured and the dropout rates be contained.
 - ✓ Focus should be laid on training the untrained teachers and reducing the shortage of teachers in primary schools besides, providing infrastructure and basic facilities to schools and effective utilization of funds.

5. Notify HIV-hit children as disadvantaged group: SC

<http://www.thehindu.com/news/national/notify-hiv-hit-children-as-disadvantaged-group-sc/article17753788.ece>

What's in news?

- Supreme Court requested State governments to consider issuing a notification under the Right to Education law, proclaiming children living with/influenced by HIV as disadvantaged group.
- HIV affected children to gain free and compulsory education under RTE if notified as disadvantage group.

- Under Section 2 (d) of The Right of Children to Free and Compulsory Education Act of 2009, which mandates the State governments concerned to issue a notification that a child belongs to a disadvantaged group based on reasons ranging from caste, social, cultural, linguistic, geographical, gender, etc.
- **Present scenario:**
 - ✓ HIV-hit children face denial of admission, outright expulsion, segregation, breach of confidentiality to being given chores like cleaning toilets.
 - ✓ According to NACO estimates in 2012-2013, around 20.9 lakh people were living with HIV in 2011. Children less than 15 years of age account for seven percent (1.45 lakh) of all infections.
 - ✓ India has a substantial number of HIV-positive children who are of school-going age and need to be in school.
 - ✓ In schools, instead of kindness from the authorities, these children face ridicule.

Topic: International Relations

6. New visa regime kicks off today

<http://www.thehindu.com/news/national/new-visa-regime-kicks-off-today/article17754120.ece>

- **Features of India's new liberalized visa structure:**
 - ✓ E-visas-classified into new classes viz., e-tourist visa, e-business visa and e-medical visa.
 - ✓ The e-visa facility extended to the nationals of 161 countries for entry through 24 airports — earlier being done through 16 airports and three sea ports, Kochi, Goa and Mangalore — to tap the potential of cruise tourism from different countries.
 - ✓ Window for application under the e-visa scheme has been increased from 30 to 120 days.
 - ✓ Duration of stay on e-visa has been increased from 30 to 60 days.
 - ✓ Dual entry on e-tourist and e-business visa and triple entry on e-medical visa.
 - ✓ New categories of visas - intern visa and film visa have been introduced.

Topic: Bilateral relations

7. Dalai Lama's Arunachal visit will spoil ties: China

<http://www.thehindu.com/news/national/dalai-lamas-arunachal-visit-will-spoil-ties-china/article17753806.ece>

What's in news?

- Dalai Lama plans to visit Arunachal Pradesh has annoyed China. It has warned that the proposed visit would amount to deep damage to Sino-Indian ties.
- Dalai Lama's visit to Arunachal Pradesh is a "sensitive issue," and referred to its linkage with the boundary issue.
- Chinese claims- Tawang is a part of Tibet and Tibet is a part of China. So Tawang is a part of China
- **Reason:** China has been particularly strong about its claims over Tawang, which houses the famous **Tawang Monastery — India's largest monastery. It is also the second largest monastery in the world after the Potala Palace in Lhasa.**

Basic Information:

- **Tawang Monastery**
 - ✓ Located in Indian state of Arunachal Pradesh
 - ✓ It is the largest monastery in India and second largest in the world after the Potala Palace in Lhasa, Tibet.
 - ✓ It is situated in the valley of the Tawang River, Arunachal Pradesh, in close proximity to the Tibetan and Bhutanese border.
 - ✓ Tawang Monastery is known in Tibetan as **Galden Namgye Lhatse**, which translates to "**celestial paradise in a clear night.**"
 - ✓ Of all the festivals celebrated in the monastery, Torgya is the most elaborate and colorful.

Topic: Effect of policies of developed countries on India's interests.

8. India may be hit by U.S. trade review

<http://www.thehindu.com/todays-paper/tp-international/india-may-be-hit-by-us-trade-review/article17754202.ece>

What's in news?

- US to review its trade ties with its trading partner, in the backdrop of country's surmounting trade deficit.
- A "country-by-country, product-by-product" report will be prepared in 90 days that would form the basis of further measures that the administration would take to reduce the country's trade deficit.
- The report to identify every form of trade abuse and every non-reciprocal practice.

- The review will be to assess whether a deficit is being caused by cheating, specific trade agreements, lax enforcement or World Trade Organization rules.
- **U.S issues of concern with India:-**
 - ✓ Inadequate protection of intellectual property,
 - ✓ State subsidies and tariff and non-tariff barriers.
 - ✓ Ban on animal-tested cosmetics and restrictions on dairy products and alcohol
 - ✓ Opaqueness in its non-tariff regulations
 - ✓ Export subsidy programmes in several sectors .
- **Future focus:**
 - ✓ Trade in energy
 - ✓ Trade in generic pharmacy and defense.
 - ✓ Movement of service professionals in and out of U.S.
- **Key Fact:** India is the ninth biggest trading partner of the U.S. and had a trade surplus of around \$26 billion with the U.S in goods trade alone last year.

G.S.Paper-3

Topic: Environmental Science and Ecology

1. Industries grossly pollute Ganga

<http://www.thehindu.com/news/national/industries-grossly-pollute-ganga/article17753796.ece>

What's in news?

- A Recent report released by Central Pollution Control Board highlights:
 - ✓ 30% of the so-called Grossly Polluting Industries (GPI), along the Ganga, is not complying with norms.
 - ✓ The CPCB has identified a total of 764 major polluting industries along Uttar Pradesh, Uttarakhand, West Bengal and Bihar.
 - ✓ Tanneries comprise the bulk of polluting industries and 80% of the polluting industries are located in Uttar Pradesh and Uttarakhand
- **What are Grossly Polluting Industries?**

GPIs are defined as industries that discharge more than 1,00,000 liters of waste water and/or hazardous chemicals.

Topic: Science and Technology

2. New way to fight drug resistant superbugs

<http://www.thehindu.com/todays-paper/tp-national/new-way-to-fight-drug-resistant-superbugs/article17754495.ece>

- **Novel approach like kidney dialysis:**

- ✓ Removing antibodies from the blood stream could reduce chronic infections- this approach help humans in the fight against drug resistant superbugs.
- ✓ Two patients with bronchiectasis who suffered with chronic Pseudomonas aeruginosa infections that were resistant to many antibiotics were treated with this novel approach successfully.
 - Bronchiectasis is a disease that leads to permanent enlargement of the airways in the lung.
 - Chronic Pseudomonas aeruginosa lung infections commonly occur in patients suffering from bronchiectasis.
 - Symptoms - chronic cough, shortness of breath, coughing up blood, and chest pain.
- ✓ Process plasmapheresis similar lines of kidney dialysis:
It involves removal, treatment, and return of blood plasma from circulation.
Replacing antibodies with those from blood donations.
This treatment restored the ability for the patients' blood to kill their infecting Pseudomonas.

3. SpaceX rocket makes history

<http://www.thehindu.com/todays-paper/tp-national/spacex-rocket-makes-history/article17754497.ece>

What's in news?

- SpaceX successfully launched and then retrieved its first recycled rocket - a historic feat and huge revolution in spaceflight
- Novel idea to drive down costs and speed up flights.

Basic information:

- **SpaceX** : Space Exploration Technologies Corporation, better known as SpaceX, is an American aerospace manufacturer and space transport services company headquartered in Hawthorne, California.

Topics: Economy

4. RBI need not remonetise fully: report

<http://www.thehindu.com/business/rbi-need-not-remonetise-fully-report/article17752916.ece>

- Highlights of report published by the State Bank of India's Group Chief Economic Adviser Soumya Kanti Ghosh .
 - ✓ The Reserve Bank of India (RBI) need not print the entire amount of high-value currency notes extinguished by the Centre's demonetisation move last year.
- Reasons:
- i. There was excess cash floating in the system prior to November 8.
 - ii. Increase in Digital payments usage.
- ✓ RBI should only print Rs. 1.15 trillion [lakh crore] more from March 24 levels

5. Infra deficit to take two decades to bridge

<http://www.thehindu.com/todays-paper/tp-business/infra-deficit-to-take-two-decades-to-bridge/article17754155.ece>

Key Points :

- Funds needed for transport, water management.
- India has an infrastructure deficit that could take almost two decades to bridge.
- Contrary to all the global noises we see in various parts of the world, there are no noises of protectionism in India and therefore, we are amongst the most open economies in the world.
- The European Investment Bank (EIB) announced commitment of €450 million for supporting sustainable transport and renewable energy projects.
- Investment will be required in sectors such as public transport, water management, rural infrastructure among others.

6. Policy change to push stalled power projects

<http://www.thehindu.com/todays-paper/tp-business/policy-change-to-push-stalled-power-projects/article17754285.ece>

Key Points :

- Move frees up Rs. 1.5 lakh cr. Investments.
- The Cabinet Committee on Economic Affairs (CCEA) approved amendments in the Mega Power Policy to push 31 GW stranded projects entailing an investment of Rs. 1.5 lakh crore.
- The initiative is mainly aimed at bringing down power tariff for making electricity more affordable and achieving the ambitious goal of 24X7 power for all.

- The Cabinet Committee on Economic Affairs, chaired by Prime Minister Narendra Modi has approved the time period for the provisional mega projects (25 projects), for furnishing the final mega certificates to the tax authorities be extended to 120 months instead of 60 months from the date of import.

7. India to support 'resistance' to protectionism at G20 meet

<http://www.thehindu.com/todays-paper/tp-business/india-to-support-resistance-to-protectionism-at-g20-meet/article17754174.ece>

Key Points :

- Country's interests include ensuring ease of mobility for skilled professionals.
- Despite a formal statement by the world's largest economies being silent on concerns over protectionist measures, India — which was a part of the G20 Finance Ministers and Central Bank Governors Meeting on March 17-18 — said Friday that it strongly supported 'resistance' to all forms of protectionism.
- India strongly supports resistance to all forms of protectionism, and is fully with Germany (which is holding the G20 Presidency) on measures to open up trade in goods and services.
- India is keen on free movement of labour, especially high-skilled labour, and is ready to work with other G20 members on that.
- India is also keen on ensuring energy access.

Articles in news:

▪ Comptroller and Auditor general of India

Article 148. Comptroller and Auditor General of India

(1) There shall be a Comptroller and Auditor General of India who shall be appointed by the President by warrant under his hand and seal and shall only be removed from office in like manner and on the like grounds as a Judge of the Supreme Court

(2) Every person appointed to be the Comptroller and Auditor General of India shall, before he enters upon his office, make and subscribe before the President, or some person appointed in that behalf by him, an oath or affirmation according to the form set out for the purpose in the Third Schedule

(3) The salary and other conditions of service of the Comptroller and Auditor General shall be such as may be determined by Parliament by law and, until they are so determined, shall be as specified in the Second Schedule: Provided that neither the salary of a Comptroller and Auditor

General nor his rights in respect of leave of absence, pension or age of retirement shall be varied to his disadvantage after his appointment

(4) The Comptroller and Auditor General shall not be eligible for further office either under the Government of India or under the Government of any State after he has ceased to hold his office

(5) Subject to the provisions of this Constitution and of any law made by Parliament, the conditions of service of persons serving in the Indian Audit and Accounts Department and the administrative powers of the Comptroller and Auditor General shall be such as may be prescribed by rules made by the President after consultation with the Comptroller and Auditor General

(6) The Administrative expenses of the office of the Comptroller and Auditor General, including all salaries, allowances and pensions payable to or in respect of persons serving in that office, shall be charged upon the Consolidated Fund of India

Acts in News:

- **Right of Children to Free and Compulsory Education Act, 2009:**

- ✓ Right of children to free and compulsory education till completion of elementary education in a neighborhood school.
- ✓ 'compulsory education' means obligation of the appropriate government to provide free elementary education and ensure compulsory admission, attendance and completion of elementary education to every child in the six to fourteen age group.
- ✓ 'Free' means that no child shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education.
- ✓ It makes provisions for a non-admitted child to be admitted to an age appropriate class.
- ✓ It specifies the duties and responsibilities of appropriate Governments, local authority and parents in providing free and compulsory education, and sharing of financial and other responsibilities between the Central and State Governments.
- ✓ It lays down the norms and standards relating inter alia to Pupil Teacher Ratios (PTRs), buildings and infrastructure, school-working days, teacher-working hours.
- ✓ It provides for rational deployment of teachers by ensuring that the specified pupil teacher ratio is maintained for each school, rather than just as an average for the State or District or Block, thus ensuring that there is no urban-rural imbalance in teacher postings.

- ✓ It also provides for prohibition of deployment of teachers for non-educational work, other than decennial census, elections to local authority, state legislatures and parliament, and disaster relief.
- ✓ It provides for appointment of appropriately trained teachers, i.e. teachers with the requisite entry and academic qualifications.
- ✓ It prohibits (a) physical punishment and mental harassment; (b) screening procedures for admission of children; (c) capitation fee; (d) private tuition by teachers and (e) running of schools without recognition.
- ✓ It provides for development of curriculum in consonance with the values enshrined in the Constitution, and which would ensure the all-round development of the child, building on the child's knowledge, potentiality and talent and making the child free of fear, trauma and anxiety through a system of child friendly and child centered learning.
- ✓ **Important provisions:**
 - ❖ The Act makes education a fundamental right of every child between the ages of 6 and 14 and specifies minimum norms in elementary schools.
 - ❖ It requires all private schools(except the minority institutions) to reserve 25% of seats for the poor and other categories of children (to be reimbursed by the state as part of the public-private partnership plan).
 - ❖ Children are admitted in to private schools based on caste-based reservations.
 - ❖ It also prohibits all unrecognised schools from practice, and makes provisions for no donation or capitation fees and no interview of the child or parent for admission
 - ❖ The Act also provides that no child shall be held back, expelled, or required to pass a board examination until the completion of elementary education.
 - ❖ There is also a provision for special training of school drop-outs to bring them up to par with students of the same age.
- **Implementation and funding**
 - ✓ Education in the Indian constitution is a concurrent issue and both centre and states can legislate on the issue.
 - ✓ The Act lays down specific responsibilities for the centre, state and local bodies for its implementation.

Practice Questions.

1. Who chairs the Cabinet Committee on Economic Affairs ?

- a) Finance Minister
- b) Prime Minister
- c) RBI Governor
- d) Chief Economic Adviser to Government of India

Answer : B

Topic : Economy

Type : Factual

Level : Easy

The major function of the Cabinet Committee on Economic Affairs (CCEA) is to review economic trends on a continuous basis, as also the problems and prospects, with a view to evolving a consistent and integrated economic policy framework for the country. It also directs and coordinates all policies and activities in the economic field including foreign investment that require policy decisions at the highest level. The Cabinet Committee on Economic Affairs (CCEA) has been constituted with the Prime Minister as Chairman.

2. Currently who is holding the presidency of G20 grouping of nations ?

- a) France
- b) Japan
- c) India
- d) Germany

Answer : D

Topic : International groupings

Type : Factual

Level : Easy

The G20 (or G-20 or Group of Twenty) is an international forum for the governments and central bank governors from 20 major economies.

It seeks to address issues that go beyond the responsibilities of any one organization. The G20 heads of government or heads of state have periodically conferred at summits since their initial meeting in 2008, and the group also hosts separate meetings of finance ministers and central bank governors.

Currently Germany is holding the presidency of the group.

3. Consider the following Statement with reference to Right to Education Act

1. The Act makes education a fundamental right of every child between the ages of 6 and 14 and specifies minimum norms in elementary schools.
2. It requires all private schools(except the minority institutions) to reserve 30% of seats for the poor and other categories of children

Choose the correct answer

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. None of the above

Answer : A

Topic : Polity

Type : Factual

Level : Easy

Explanation:

The Act makes education a fundamental right of every child between the ages of 6 and 14 and specifies minimum norms in elementary schools.

It requires all private schools(except the minority institutions) to reserve 25% of seats for the poor and other categories of children (to be reimbursed by the state as part of the public-private partnership plan).

4. Consider the following Statement with reference to Tawang Monastery

1. It is located in Indian State of Arunachal Pradesh.
2. It is the largest monastery in India and second largest in the world.
3. It is also known as celestial paradise in a clear night

Choose the correct answer

- A. 1 only
- B. 1 and 2
- C. 1 and 3
- D. 1, 2 and 3

Answer : D

Topic : Current Affair

Type : Factual

Level : Moderate

Explanation:

▪ **Tawang Monastery**

- ✓ Located in Indian state of Arunachal Pradesh
- ✓ It is the largest monastery in India and second largest in the world after the Potala Palace in Lhasa, Tibet.
- ✓ It is situated in the valley of the Tawang River, Arunachal Pradesh, in close proximity to the Tibetan and Bhutanese border.
- ✓ Tawang Monastery is known in Tibetan as **Galden Namgye Lhatse**, which translates to "**celestial paradise in a clear night.**"
- ✓ Of all the festivals celebrated in the monastery, Torgya is the most elaborate and colorful.