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Category: POLITY AND GOVERNANCE

1. In Kashmir Valley, hundreds of pellet gun victims face a hazy future

What's in the news?

- The latest study titled 'Psychiatric Morbidity in Pellet Injury Victims of the Kashmir Valley', conducted by the Department of Psychiatry, Government Medical College (GMC), Srinagar, has thrown a spotlight on hundreds of pellet victims that are now a part of Kashmir's growing population living with anxiety and depression.

Important Findings of the Study:

- According to a 2016 survey by the Geneva-based Medecins Sans Frontieres, nearly 1.8 million (45%) adults in the Kashmir Valley are experiencing symptoms of mental distress, with 41% exhibiting probable depression, 26% having anxiety, and 19% ailing from post traumatic stress disorder (PTSD).
- The report mentions that 37% of males and 50% of females in Kashmir suffer from probable depression, while 21% of men and 36% of women suffer from a probable anxiety-related disorder.
- Also, the number of suicide attempts has also increased by more than 250% between 1994-2012.
- The study carried out by the GMC on 380 pellet and pellet-plus firearm injury patients showed that many of them were diagnosed with major depressive disorders (25.79%), followed by other issues — adjustment disorder (15.79%), panic disorder (12.11%), PTSD (9.21%), generalised anxiety disorder (7.89%), mixed anxiety with depression (5%), substance abuse (4.21%), specific phobia (2.89%), and hypomania (2.11%).

Pellet epidemic:

- According to various government and non-governmental data, the number of pellet victims in Kashmir since the pellet shotgun was introduced in 2010 to quell mass street protests, is likely to be between 10,000 to 20,000 persons.
- The latest study also shows psychiatric morbidity among those with eye injuries caused by pellets at 91.92%, when compared with 70% incidence among victims receiving pellet injuries in other parts of the body. The study was carried on 333 males and 47 females in the Valley from different districts and socio-economic background.
- Doctors fear it may impact the mental health of the next generation, too.

Alarming figures:

- It is important to note that the current prevalence of depression in Kashmir is 7.3% compared with 4% in mainland India, which is an even higher figure by global standards.
- Further, pellet victims who have suffered disabilities or lost jobs are the most vulnerable to grave psychological issues.

2. No ghost voters, says Election Commission

What's in the news?

- The Election Commission (EC) recently said there were no “ghost voters” in the Lok Sabha election, as reported in a section of the media based on the provisional turnout data uploaded on its website.

Statement issued by the Election Commission of India:

- The EC said in a statement: **“The provisional voter turnout data, reported on the ECI website, is only the tentative number of voters and not the final numbers. Therefore, it is an incorrect inference to find ghost voters when there are none.”**
- Further, it said two categories of votes:
 1. those polled in the electronic voting machines (EVMs) and the postal ballots
 2. are counted to determine the final result.

- Further, it is important to note that, **the provisional voter turnout data is displayed as a percentage figure on the ECI website and the voter helpline mobile app on the poll day as uploaded by the Returning Officer/Assistant Returning Officer.**
- Next, based on the EVM votes and the postal ballots, the Returning Officer prepares the **Form 21E** (the certificate given to the winning candidates) and the index card in which the break-up of the turnout is tallied to get the final turnout for each constituency.
- The EC said, **“For the General Election, 2019, the Commission has already directed all the Returning Officers on March 26, 2019, to send the index cards within 15 days of the declaration of the results.”**
- It is important to note that the reconciliation of voters’ data has been completed in all States and the index forms of all 542 Lok Sabha constituencies are expected to reach the EC soon.

3. After Article 370, debate on Nagaland’s 371(A)

What’s in the news?

- In a recent development, amid calls for scrapping Article 370 of the Constitution that gives autonomous status to Jammu and Kashmir, **a legislator of the ruling party in Nagaland has triggered a debate on Article 371(A) that guarantees special status for the people of the north-eastern State.**

Analysis:

- Neikiesalie Nicky Kire of the Nationalist Democratic Progressive Party (NDPP) had recently attributed the lack of development in Nagaland to Article 371(A) that safeguards the customary rights of the Nagas.
- **It is important to note that the NDPP rules Nagaland in alliance with the BJP.**
- Kire said that land and its resources in Nagaland belong to the people and not the government. Further, landowners usually wield the provisions in Article 371(A) to prevent the government from carrying out developmental activities on their land.
- As a matter of fact, he appealed to the people not to use Article 371(A) to hinder development work.
- Shurhozelie Liezietsu, the president of the Opposition Naga People’s Front (NPF), said it was not right to blame Article 371(A) for the government’s inability to push projects.
- Some people have agreed with Dr. Kire though. They assert that the MLA certainly did not mean Article 371(A) needs to go. The problem with this Article lies in its interpretation.
- The government must undertake an awareness campaign with a detailed interpretation of the rights given to landowners. But yes, some landowners do take advantage of the provisions which affects development.

Category: INTERNATIONAL RELATIONS

1. ‘Kartarpur corridor to be completed by Sept. 30’

What’s in the news?

- Punjab PWD Minister Vijay Inder Singla recently said that the construction of the Kartarpur corridor on the Indian side will be completed by September 30th, 2019.
- The corridor will link Dera Baba Nanak shrine in Gurdaspur in Punjab in India with Gurdwara Darbar Sahib at Kartarpur in Pakistan.

- As a matter of fact, the construction of the passage will be accomplished by September 30th, 2019, well in time before the 550th Parkash Parb (birth anniversary) celebrations of Sikhism founder Guru Nanak Dev.

BSF check-post:

- After the inspection of the site, the Minister said the length of the corridor on the Indian side was 4.2 km, with 3.6 km being a linear stretch equipped with median lights, carriageway and raised footpaths on both sides.
- The remaining stretch comprises approach roads from the historic Gurdwara Dera Baba Nanak and the BSF check-post on the international border.
- The minister has assured that world-class infrastructure would be in place for the devotees.

Concluding Remarks:

- The corridor will facilitate passage to the historic gurdwara in Kartarpur, which is the final resting place of Guru Nanak Dev.
- The Kartarpur gurdwara is located in Pakistan's Narowal district across the Ravi, about four kilometres from the Dera Baba Nanak shrine in Punjab in India.
- Pakistan will build the corridor up to the Indian border from the gurdwara in Kartarpur.
- **The corridor will be thrown open to pilgrims in November 2019 this year to mark the 550th birth anniversary of Guru Nanak Dev.**

2. With a bristling U.S., Jaishankar has his task cut out

Analysis:

- It is important to note that U.S. President Donald Trump's announcement that Washington was withdrawing the GSP (Generalised System of Preferences) trade status given to India 30 years ago came hours after former diplomat S. Jaishankar assumed office as External Affairs Minister, pointing to the fact that the immediate challenges before him will come from the U.S. and its "great power rivalry" with Russia and China.
- Further, while Mr. Trump's decision, based on what he called India's inability to assure the U.S. "that it will provide equitable and reasonable access to its markets", is a continuation of the new tariffs and trade war he is now waging with China. Furthermore, **it is just one of the slew of U.S. announcements in the recent past that will give the Modi government cause for worry.**
- **The India-U.S. trade relationship had been under heavy strain for the past year.**
- **This relationship has been under strain over what Washington calls unfair trade restrictions on sale of dairy products and medical equipment, as well as proposed Indian regulations on data localisation and e-commerce companies operating here.**

No breakthrough

- Despite several rounds of talks on a comprehensive trade package, there has been no breakthrough, and Mr. Jaishankar will have to work with the new Commerce Minister Piyush Goyal to revive the talks, possibly when Secretary of State Mike Pompeo visits Delhi in the month of June, 2019.
- Recently, the U.S. Special Representative for Iran, Brian Hook, said plainly that the U.S. would sanction, without exception, any country that buys or has bought Iranian oil after the May 2nd, 2019 deadline.

- It is important to note that **while India has not bought Iranian oil since May 2nd, 2019, it is yet to say categorically that it won't, and the new External Affairs Minister is expected to make a clear policy statement on this soon.**
- Russia and China have opposed the sanctions, and are likely to discuss this at the upcoming SCO (Shanghai Cooperation Organization) summit with Prime Minister Narendra Modi.
- Moreover, in another recent development, a senior State Department official told a group of reporters in Washington, that **the U.S. would also bring sanctions under the Countering America's Adversaries Through Sanctions Act, CAATSA, against India, if it goes ahead with its purchase of the S-400 Triumf missile shield from Russia.**
- As a matter of fact, **the purchase would "preclude" a deep and broad defence relationship with the U.S.**
- It is important to note that India has announced that it will get its first Triumf system by October 2020 and the \$5.5 billion contract will be completed by April 2023, and unless the government changes plans, it is set on a collision course with the U.S. on the issue.
- In another development, Acting Secretary of Defense Patrick Shanahan made it clear that the U.S. wants its partners to join in the ban on Chinese telecommunication company Huawei for its 5G technology.

Message from Pompeo:

- Shanahan's warnings followed a stark message from Mr. Pompeo, who said during a visit to Germany recently that the U.S. may cut intelligence sharing with countries that choose telecom companies the U.S. doesn't trust.
- India has thus far declined to ban Huawei from its process for 5G telecommunication network.
- Significantly, Mr. Modi will meet the leaders of all three nations: Mr. Trump, Russian President Vladimir Putin and Chinese President Xi Jinping in the month of June 2019, at the SCO summit in Bishkek on June 13-14, 2019 and G-20 summit in Osaka on June 28-29, 2019
- With his new role, and the job of preparing for the meetings, Mr. Jaishankar will have his task cut out.

C. GS3 Related

Category: INDIAN ECONOMY

1. Trump ends concessions for Indian exports under GSP

What's in the news?

- A day after a group of journalists was told that India's access to preferential trade terms under the U.S.'s Generalized System of Preferences (GSP) was on its way out, U.S. President Donald Trump issued a proclamation ending the trade benefits effective June 5th, 2019.
- However, according to a senior State Department official, the benefits could possibly be reinstated subject to India and the U.S. reaching an agreement.

What did Mr. Trump's proclamation read?

- Trump's proclamation read, "I have determined that India has not assured the United States that India will provide equitable and reasonable access to its markets. Accordingly, it is appropriate to terminate India's designation as a beneficiary developing country effective June 5, 2019."

- It is important to note that the **GSP is a programme that seeks to aid developing countries by giving some of their products non-reciprocal, duty-free access to U.S. markets.**
- In 2018, some \$ 6.3 billion of Indian merchandise exports to the U.S. were covered by GSP, according to the Congressional Research Service.
- As a matter of fact, this represented 11% of all merchandise from India.
- **India was the largest beneficiary of the programme, accounting for over one quarter of all the U.S.'s GSP-covered imports.**
- The U.S. Trade Representative (USTR) began a review of India's eligibility for GSP in April 2018. The U.S. medical devices and dairy industries had made representations on market access issues in India. Tariffs in the ICT sector had also become an irritant in ties.

Package rejected:

- Further, it is important to note that India had offered the U.S. a “meaningful package” that covered U.S. concerns, but this was not acceptable to the U.S.
- The recent proclamation issued by the U.S. government was done despite requests from U.S. lawmakers that the GSP was not to be withdrawn as it would harm U.S. companies.
- **The proclamation also withdrew the exemption for India from safeguard measures on CPSV (crystalline silicon photovoltaic) products and large residential washers.**

U.S. firms unhappy:

- The Coalition for GSP, an industry body, was not supportive of the measure, saying it would cost American companies \$300 million in additional annual tariffs.
- Reacting to this development, some experts have opined that American importers will pay more, while some American exporters will continue to face current market access barriers in India and others, including farmers, are very likely to be subject to new retaliatory tariffs.

Category: SCIENCE AND TECHNOLOGY

1. IIT Madras develops material with properties suitable for quantum optoelectronics

What's in the news?

- Materials such as tungsten diselenide (WSe₂) and molybdenum diselenide are being studied keenly for their opto-electronic properties – which is a combination of optics and electronics.
- A key property of these materials is photoluminescence, in which the material absorbs light and re-emits it as a spectrum.
- As a matter of fact, **researchers from IIT Madras have found a way of enhancing this property about 30 times in tungsten diselenide, by drop-casting gold nanoparticles on to a two-dimensional film.**
- The work is published in Applied Physics Letters.

Two-dimensional material:

- Consisting of practically one layer of atoms, these materials are two-dimensional in structure.
- **Photoluminescence properties can be used in various devices such as quantum LEDs which can be used in communication and computation.**
- Experts have opined that **the most challenging aspect of this study was the controlled photoluminescence measurement of these materials from room temperature to 100 K.**

- As is well known, electrons in semiconductors occupy bands of energy known as valence bands.
- As long as they live in these bands, they do not move and contribute to conduction.
- If excited by a small energy input, they get kicked into what is called the conduction band where they can actually be delocalised and contribute to the conduction by moving around.

Excitons:

- When an electron jumps from the valence to the conduction band, it leaves behind a shadow called a “hole.”
- The electron in the conduction band and the hole in the valence band can bind together and form a composite object (or pseudoparticle) known as an exciton.
- **Photoluminescence in tungsten selenide is a result of such excitons.**
- There can be two ways in which an exciton can form – when the spins of the component electron and hole are opposite to each other and when they are aligned in the same direction.
- The former is called a bright exciton and the latter, a dark exciton.
- Because their spins are opposite, the electron and hole forming the bright exciton can recombine, giving out a quantum of light in the process.
- Such a simple way of recombining does not exist for the dark excitons.
- Since there, the spin of the electron and the hole are parallel, their recombination is discouraged by the rule of conservation of angular momentum.
- Hence the dark excitons are longer lived than the bright excitons. The dark excitons need an external influence to help them recombine.
- In their work, the IIT Madras researchers find exactly such an external influence.

The power of gold:

- When they drop-cast gold nanoparticles on the surface of the monolayer tungsten diselenide, they find that the dark excitons couple to the surface fields generated and recombine to give off light quanta.
- Thus, the dark excitons are “brightened” with the help of the gold nanoparticles.
- That plasmonic effect arises due to gold nanoparticles is a well known concept. However, its application to 2D systems is in nascent stage.
- The scientists thought that if they drop-cast gold nanoparticles onto monolayer WSe₂, then it will generate out-of-plane electric field due to plasmonic effect, which can help for spin-flip of conduction band electrons, thereby making dark excitons bright.

2. Rose-inspired novel device to collect, purify water

What's in the news?

- In a recent development, scientists have taken inspiration from roses to develop a low-cost device for collecting and purifying water.
- The team developed a new approach to solar steaming for water production that uses energy from sunlight to separate salt and other impurities from water through evaporation.
- In a study published in Advanced Materials, they outline how an origami rose provided the inspiration for developing a new kind of solar-steaming system made from layered, black paper sheets shaped into petals.
- **Water finds its way to the petals where the polypyrrole material coating on the flower turns the water into steam.**
- Impurities naturally separate when condensed in this way

1. Body scanners made mandatory at 84 airports

What's in the news?

- The Government of India has made it mandatory for 84 airports in the country to install full-body scanners to screen air travellers within a year and issued a standard operating procedure for their use.
- The 84 airports include 26 hyper-sensitive airports and 58 sensitive airports.
- Other airports have two years' time to introduce these scanners.

Global standard:

- This equipment will replace walk-through metal detectors and passengers will have to remove shoes, belts, jackets, thick clothing and be "divested" of all metallic items.
- As a matter of fact, this is a practice at most prominent airports across the world.
- However, 10% of passengers will also be subjected to full pat-down searches at random.

Advantages of body scanners:

- It is important to note that walk-through metal detectors and hand-held metal detectors cannot detect non-metallic weapons and explosives. On the other hand, body scanners detect both metallic and non-metallic items concealed on the body.

A Safeguard towards ensuring Privacy:

- Following concerns over these machines generating naked images of passengers, the **Bureau of Civil Aviation Security (BCAS)** has mandated privacy filters.
- As a result, these scanners will produce only an outline or a mannequin-like image, which is the same for all genders. A yellow box appears on the body image to highlight areas that may need further screening.
- The scanner shall provide image-free solution using a generic mannequin. Threats shall be graphically presented.

Technology which these scanners will use:

- These scanners use millimetre wave technology, which means passengers will not be subjected to harmful X-ray radiation, and the machine is safe for use by all, including pregnant women.
- These scanners will help airports improve passenger throughput as they are required to screen a passenger in eight seconds and 300 passengers per hour, according to the technical specifications spelt out by the BCAS.

D. GS4 Related

Nothing here for today!!!

E. Editorials

1. Why is China laying down gene editing rules?

What's in the news?

- In a bid to make babies immune to infection by the human immunodeficiency virus (HIV), He Jiankui, who is a researcher from the Southern University of Science and Technology in Shenzhen, China, used a clinically untested gene editing tool (CRISPR-Cas9) to modify a particular gene.
- The tool has also been used on another woman to make a gene-edited embryo; the pregnant woman is expected to deliver in August, 2019.
- The announcement of the birth of gene-edited twin girls late last year set off an international furore.

Editorial Analysis:

How does it work?

- Unusual but repeated DNA structures that scientists had been observing for some time were given a name. This name assigned was “**Clustered regularly interspaced short palindromic repeats**” or CRISPR.
- In 2012, scientists discovered that CRISPR is a key part of the “immune system”.
- For instance, when a virus enters a bacterium, it fights back by cutting up the virus's DNA.
- This kills the virus but the bacterium store some of the DNA.
- The next time there is an invasion, the bacterium produces an enzyme called Cas9 which matches the stored fingerprints with that of the invader's.
- If it matches, Cas9 can snip the invading DNA.
- The CRISPR-Cas9 gene editing tool thus has two components. These are:
 1. a short RNA sequence that can bind to a specific target of the DNA and
 2. the Cas9 enzyme which acts like a molecular scissor to cut the DNA.

To edit a gene of interest, the short RNA sequence that perfectly matches with the DNA sequence that has to be edited, is introduced.

Once it binds to the DNA, the Cas9 enzyme cuts the DNA at the targeted location where the RNA sequence is bound.

Once the DNA is cut, the natural DNA repair mechanism is utilised to add or remove genetic material or make changes to the DNA.

Was it wrong to use the gene tool?

- He used the CRISPR–Cas9 gene editing technique in the twin girls to disable a gene called CCR5, which encodes a protein that allows HIV to enter and infect cells.
- Though no guidelines have been drawn up so far, there is a general consensus in the scientific and ethics communities that the CRISPR–Cas9 gene-editing technique should not be used clinically in embryos.
- There is also consensus that gene editing can be potentially used only to prevent serious genetic disorders that have no alternative treatment.
- Further, while HIV cannot be cured, medicines can keep the virus under check.

- Importantly, human clinical trials have not been carried out anywhere in the world to test whether disabling the gene completely prevents HIV infection and what the side-effects of doing so would be.
- In the absence of any clinical trial data as well as consensus to use this tool to prevent HIV infection, performing it on babies as a form of medical intervention is unethical.
- According to Nature, the hospital that had supposedly given Dr. He ethical approval to use the technique on pregnant women issued a press statement denying this.
- The hospital also “questioned the signatures on the approval form” and said no committee meeting had been held related to his research work.
- Apparently, information on the consent form suggests that the parents who had participated in the experiment were never told about the problems of disabling the gene.

Can disabling the CCR5 gene prevent HIV?

- While it is generally believed that babies without a functional CCR5 gene will become resistant to HIV infection, certain other strains of HIV use another protein (CXCR4) to infect cells.
- Hence, even people who are born with two copies of the non-functional CCR5 gene are not completely protected or resistant against HIV infection.
- There is also the possibility that the gene editing tool could have caused unintended mutations in other parts of the genome, which may lead to unpredictable health consequences.
- Most importantly, medicines and delivery through caesarean section and avoiding breast feeding can prevent vertical viral transmission from mother to foetus.
- It is important to note that while women with HIV have greater chances of passing the virus to the foetus, in this case, the mother was HIV-free; the father was HIV positive.

Does the CCR5 gene have any protective role?

- The CCR5 gene’s protective role against the West Nile virus is well established.
- According to Nature, the CCR5 gene also helps to protect the lungs, the liver and the brain during certain serious infections and chronic diseases.
- The gene is known to prompt the immune system to fight the influenza virus in the lungs.
- Without this gene the defence system would fail.
- In the case of people with multiple sclerosis, absence of this gene makes them twice as likely to die early.

Was the gene removed in both babies?

- There are two copies of the gene in every person.
- In the case of one baby girl both the copies of the gene were disabled but in the other baby, only one copy was disabled.
- So the baby with one functional copy of the gene might still be susceptible to HIV infection.
- The decision to implant the embryo with only one disabled copy makes the work all the more unethical.
- Though Dr. He claimed the babies were born in early November last year (2018), The New York Times reported that the babies were born premature in October.

What steps has China taken to prevent misuse?

- The Chinese national health commission asked the Guangdong health commission to start an investigation.
- On January 21st this year (2019), Dr. He was fired from the university where he worked after a probe by the Guangdong health commission found that he had violated the national regulations against using gene-editing for reproductive purposes.
- According to The Scientist, Dr. He’s experiment violates the 2003 guidelines that prohibits the use of gene-manipulated embryos for reproductive purposes.

- On February 26th, 2019 China posted the draft regulation requiring researchers to obtain prior approval from the government before undertaking clinical trials.
- Those found violating the rules will be punished and this includes a lifetime ban on research.
- China is now all set to introduce gene-editing regulation.

Category: INDIAN ECONOMY

1. What does the merger of NSSO and CSO entail?

What's in the news?

- On May 23rd, 2019 the government announced that the National Sample Survey Office (NSSO) will be merged with the Central Statistics Office to form the National Statistical Office (NSO).
- Many believe that this move will undermine the autonomy of the NSSO which has been at the centre of various public controversies over data on economic growth and unemployment.
- Further, the NSO will be headed by the secretary of the Ministry of Statistics and Programme Implementation (MOSPI).
- This is in contrast to the original plan proposed by experts to merge various statistical bodies such as the NSSO and others to create a unified statistics body that is accountable to Parliament, rather than the government.

Editorial Analysis:

What is the issue?

- In May, 2019 the NSSO came out with a report which cast serious doubt on the reliability of raw data that is used to calculate India's gross domestic product (GDP).
- The NSSO stated that it could not either trace or classify 38.7% of the companies included in the MCA-21, a database of private companies that is maintained by the Ministry of Corporate Affairs, whose financial numbers the government currently uses to calculate GDP figures.
- The NSSO found that data from the Economic Census and the Business Register were far less affected by these issues that plagued the MCA-21 database.
- Many believe that the poor quality of raw company data could heavily skew the measurement of private sector business growth, which is a part of the overall GDP of the economy.
- When data gathered from the MCA-21 database was first used to revise earlier growth figures, sectors such as manufacturing showed significant growth in size in 2013-14.
- This was in stark contrast to the earlier estimates that showed an actual contraction in the size of manufacturing.

What is the government stand?

- MOSPI, however, has defended the use of the MCA-21 database to calculate GDP numbers stating that appropriate adjustments are made to make sure there is no overestimation of GDP.
- In a clarification issued on May 10, 2019 the government stated that companies classified as "out-of-coverage" by the NSSO still contributed to the economy even though they may not fall strictly under the services sector.
- It further stated that the weightage given to companies that report their financial numbers is far greater and that, in reality, only about 16.4% of companies in the MCA-21 are either closed or non-traceable.

- The NSSO's apprehension over the MCA-21 database still adds to concerns that already exist about the reliability of GDP data that is put out by the government due to recent changes in methodology.

How is MCA-21 important to GDP?

- Experts feel that the financial accounts of several shell companies that are included in the MCA-21 database could be fictitious, and thus cannot be considered as a good proxy for real economic activity.
- For instance, under the revised GDP series that was introduced in 2015, financial data from companies that filed their accounts with the government even just once in three years were considered sufficient to help make GDP growth estimations.
- Supporters of the new methodology believe that, in reality, the accounts of most shell companies reflect the financial activities of actual businesses which remain camouflaged behind these fictitious entities.
- So, they believe, the non-inclusion of shell companies will actually lead to a significant underestimation of the true size of the economy.
- It is important to note that Government statisticians have for long used small surveys to gather the raw data that are required to make "blown up" estimations about the growth of the wider economy.
- This, however, changed in 2015 when the government introduced a new GDP series with 2011-12 as the base year (from the previous base year of 2004-05) and introduced the MCA-21 database as the mainstay for calculating GDP figures.
- The fact that even data for the organised sector of the economy were unreliable has raised doubts about the reliability of other data.
- Data on the large unorganised sector, for instance, are even cruder and can be extremely unreliable. It is worth noting that policymakers within the government depend heavily on official GDP figures to frame their policies.

Is the data collected reliable?

- The field of economic statistics largely involves the estimation of trends in the economy based on sample data that is collected through surveys and other means.
- This usually gives rise to disagreements even among experts within the field who could have a genuine difference in opinion about how raw economic data should be collected, and about the various assumptions that should go into the calculation of GDP and other economic estimations.
- Further, what has caused a rise in concerns about the reliability of India's GDP figures in the last few years, however, is the belief that the government led by Prime Minister Narendra Modi may be increasing its interference in the process of the production of economic data.
- Also, the divergence between official GDP figures which show that growth has fallen below 6% in the fourth quarter and high-frequency economic data which reveal how various sectors are facing a serious slowdown has cast further doubt on the reliability of government data.
- In January, 2019, two non-government members of the National Statistical Commission resigned over, among other reasons, the government's reluctance to release jobs data collected by the NSSO. The NSSO's periodic labour force survey, which was leaked in January, 2019 had reported that the unemployment rate was at a 45-year high of 6.1% in 2017-18.

Will the merger impact the credibility of government data?

- The move will give the government greater leverage over production of key data.
- The lack of transparency in the production of economic data can over time cause the users of such data to discount its value.
- This has been the case in countries such as China where the constant tinkering with official economic data has caused analysts to lose trust in them.

F. Tidbits

Nothing here for today!!!

G. Prelims Facts

Nothing here for today!!!

H. UPSC Prelims Practise Questions

Q1. Consider the following statements:

1. The Bureau of Civil Aviation Security (BCAS) is the regulatory authority for civil aviation security in India.
2. The main responsibility of the BCAS are to lay down standards and measures in respect of security of civil flights at International and domestic airports in India.

Which among the above statements is/are correct?

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

[su_dropcap]See[/su_dropcap][su_spoiler title="Answer"]

Answer: c

Explanation:

- BCAS is the regulatory authority for civil aviation security in India.
- The main responsibility of the BCAS are to lay down standards and measures in respect of security of civil flights at International and domestic airports in India

[/su_spoiler]

Q2. Consider the following statements:

1. Photoluminescence is a process in which the material absorbs light and re-emits it as a spectrum.
2. Photoluminescence properties can be used in various devices such as quantum LEDs which can be used in communication and computation.
3. Electrons in semiconductors occupy bands of energy known as valence bands.

Which among the above statements is/are incorrect?

- a) 1 and 2 Only
- b) 2 and 3 Only
- c) All 1, 2 and 3
- d) Neither 1 nor 2 nor 3

[su_dropcap]See[/su_dropcap][su_spoiler title="Answer"]

Answer: d

Explanation:

- Photoluminescence is a process in which the material absorbs light and re-emits it as a spectrum.
 - Photoluminescence properties can be used in various devices such as quantum LEDs which can be used in communication and computation.
 - Electrons in semiconductors occupy bands of energy known as valence bands.
- [/su_spoiler]

Q3. Consider the following statements:

1. The Council of Scientific & Industrial Research (CSIR), India, a premier national R&D organisation, is among the world's largest publicly funded R&D organisation.
2. CSIR's 'Shanti Swarup Bhatnagar (SSB) Prize for Science and Technology', instituted in 1957 is the most coveted and revered prize in science and technology in the country.

Which among the above statements is/are correct?

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

[su_dropcap]See[/su_dropcap][su_spoiler title="Answer"]

Answer: c**Explanation:**

- The Council of Scientific & Industrial Research (CSIR), India, a premier national R&D organisation, is among the world's largest publicly funded R&D organisation.
 - CSIR's pioneering sustained contribution to S&T human resource development is acclaimed nationally.
 - CSIR's 'Shanti Swarup Bhatnagar (SSB) Prize for Science and Technology', instituted in 1957 is the most coveted and revered prize in science and technology in the country.
- [/su_spoiler]

Q4. Consider the following statements:

1. Genome editing (also called gene editing) is a group of technologies that give scientists the ability to change an organism's DNA.
2. These technologies allow genetic material to be added, removed, or altered at particular locations in the genome.

Which among the above statements is/are correct?

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

[su_dropcap]See[/su_dropcap][su_spoiler title="Answer"]

Answer: c**Explanation:**

- Genome editing (also called gene editing) is a group of technologies that give scientists the ability to change an organism's DNA.
 - These technologies allow genetic material to be added, removed, or altered at particular locations in the genome. Several approaches to genome editing have been developed.
 - A recent one is known as CRISPR-Cas9, which is short for clustered regularly interspaced short palindromic repeats and CRISPR-associated protein 9.
 - The CRISPR-Cas9 system has generated a lot of excitement in the scientific community because it is faster, cheaper, more accurate, and more efficient than other existing genome editing methods.
- [/su_spoiler]

I. UPSC Mains Practise Questions

1. What is Gene Editing? Comment on some of the issues concerning the ethicality of the CRISPR–Cas9 gene-editing technique, citing recent developments. (10 Marks, 250 Words)
2. The decision taken by the U.S. Government of ending trade privileges extended to India under the Generalized System of Preferences (GSP) can potentially have serious ramifications. Comment. (10 Marks, 250 Words)