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GS I

Paper 1 Topic: Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

Haryana joins Rajasthan bid to get Akbar defeated at Haldighati

After attempts by ministers from Rajasthan to get history books rewritten in university courses to say that the battle of Haldighati was won by Maharana Pratap and not by Akbar, few legislators in neighbouring Haryana, too, are keen on amending chapters on this historical event.

Background:

The popular view of historians is that the Mughal emperor's forces had defeated the Rajput king in the battle of Haldighati in 1576.

- Other authoritative texts on medieval history, such as Satish Chandra's Medieval India: From Sultanat to the Mughals- Mughal Empire (1526-1748), say the Battle of Haldighati was fought between the forces of Akbar led by Man Singh and those of Maharana Pratap, assisted among others by "an Afghan contingent led by Hakim Sur which played a distinctive role". The battle failed to break the stalemate between Akbar and Rana Pratap, with the latter retreating into the hills of southern Mewar.
- The author also notes that Akbar followed up the battle of Haldighati by coming back to Ajmer, and personally leading the campaign against Rana Pratap. In the process, Gogunda, Udaipur and Kumbhalgarh were occupied, forcing the Rana deeper into the mountainous tract of south Mewar.

What's the issue now?

Now, some ministers claim that Akbar was only a foreign invader, and that Rana Pratap actually won the battle.

Sources: [toi](#).

Bet Dwarka Darshan Circuit in Gujarat to be developed at a cost of Rs.16.27 cr under HRIDAY

Ministry of Urban Development has approved development of 6 km long Bet Dwarka Darshan Circuit in Gujarat at a cost of Rs.16.27 cr under the Central Scheme 'Heritage City Development and Augmentation Yojana (HRIDAY)'.

- The circuit connects the famous Dwarkadish Haveli and Hanuman Dandi, the only temple housing Hanumanji and his son Makardhwaj, in Dwarka district of Gujarat. There are two important water bodies along the circuit viz., Ranchod Talav and Shankhudhar Lake.
- Darshan Circuit works to be taken up include development of streets and pedestrian pathways, laying of cycle tracks along beach side, plantation, provision of benches, resting spaces, changing rooms, drinking water and toilet facilities, craft and food bazaar, signages, LED lighting, plazas for vending spaces etc.

About HRIDAY:

Under HRIDAY launched in January, 2015, heritage related infrastructure development is being taken up in 12 identified cities at a total cost of Rs.500 cr. It aims to preserve and rejuvenate the rich cultural heritage of the country.

Key facts:

- It seeks to promote an integrated, inclusive and sustainable development of heritage sites, focusing not just on maintenance of monuments but on advancement of the entire ecosystem including its citizens, tourists and local businesses.



- Central government will meet the entire expenditure under the scheme. But, the states and local urban bodies are requested to supplement their resources for rapid development of heritage cities.
- The project will work through a partnership of Government, Academic Institutions and local community combining affordable technologies.
- The 12 cities selected for the scheme are Ajmer, Amritsar, Amravati, Badami, Dwarka, Gaya, Warangal, Puri, Kanchipuram, Mathura, Varanasi and Velankanni.

Sources: pib.

Paper 1 Topic: *Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.*

Mahila Shakti Kendra will be set-up at village level

The Finance Minister, in his Budget Speech has announced Rs 500 cr for setting up Mahila Shakti Kendras at village level in the Anganwadi Centres.

What are these centres for?

These centres will provide one stop convergent support services for empowering rural women with opportunities for skill development, employment, digital literacy, health and nutrition.

Concerns associated with this scheme:

While details about the scheme and its implementation are yet to emerge, those working in the field of rural women's empowerment raised some preliminary concerns.

- For one, the scheme proposes to attach a Mahila Shakti Kendra to each of the country's 14 lakh anganwadis, or centres that provide basic healthcare and nutrition to mothers and children from low-income households. However, Rs 500 crore divided amongst 14 lakh anganwadis in the country amounts to just Rs 3,571 for each Mahila Shakti Kendra. This is insufficient.
- Also, anganwadi workers are already overburdened with duties beyond their primary jobs, such as working for the census and other government schemes. Often, they are paid less than minimum wage.

What else is there for the welfare of women and children in the budget?

Overall, there is a hike in budget allocation for the welfare of women and children, from Rs 1.56 lakh crore last year to Rs 1.84 lakh crore.

Sources: pib.

Paper 1 Topic: *Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location- changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.*

ISRO, lifeguard agency collaborate to study killer tides

The phenomenon of 'killer rip tides' is being studied by ISRO in collaboration with a private lifeguard agency appointed by the Goa government to safeguard its beaches.



- The study Ripex 2017 is being conducted by a team of scientists at Space Applications Centre, ISRO Ahmedabad, along with Drishti Lifesaving, a private agency appointed by the state tourism ministry to maintain a lifeguard force.

What are Rip tides?

A rip tide is a strong sea current which pulls the water away from the shore, often catching unawares swimmers and people enjoying the sea in the shallows and can drag them into the sea.

Rip currents are one of the most common problem-causing currents witnessed along Goa's coast. Rip tides are one of the most common causes for drowning in the shallow waters off Goa's popular coastline.

Sources: et.

Zealandia

Zealandia has recently been given the status of a continent by several geologists who say that the long lost continent is submerged under water. While there is no formal recognition of the same by the New Zealand government, which is the major habitable administration on Zealandia; there is, however, wide interest in the media about the continent.

Where is it located?

It is located on the southwest Pacific Ocean mostly surrounding, in what is the current land mass of New Zealand and its adjoining islands.

How big is it?

The total area is estimated to be approximately 4,920,000 square km of which 93% remains submerged below the Pacific Ocean. In terms of size, it is the world's largest current micro-continent, about half the size of the Australian continent.

Which habitable areas currently fall under Zealandia?

- New Zealand.
- New Caledonia.
- Norfolk Island.
- Lord Howe Island Group.

Geography:

- The continent is largely made up of two parallel ridges, separated by a failed rift. The ridges rise above the sea floor with infrequent rocky islands rising above sea level.
- Scientists identify two main portions of the continent, North Zealandia (or Western Province) and South Zealandia (or Eastern Province).
- Compared to other continents it has much wider and deeper continental shelves.
- The highest point of Zealandia is Aoraki–Mount Cook at 3724 m.
- The region has elevated bathymetry relative to surrounding oceanic crust, diverse and silica-rich rocks, and relatively thick and low-velocity crustal structure.
- Volcanism is widespread across Zealandia but generally of low volume.

Sources: the hindu and other sources.



Why Earth's inner core doesn't melt?

Scientists have discovered why the crystallised iron core of the Earth remains solid, despite being hotter than the surface of the Sun.

Why earth's core doesn't melt?

Spinning within Earth's molten core is a crystal ball — actually a mass formation of almost pure crystallised iron — nearly the size of the moon. Scientists found that on the edge of the inner core, pieces of crystals' structure continuously melt and diffuse only to be reinserted due to high pressure like "shuffling deck of cards." This energy distribution cycle keeps the crystal stable and the core solid.

Here, changing atomic structure of iron crystals is mainly responsible for the solid core:

- The core is likely composed of 96% pure iron, with the remaining four percent made up of nickel and some light elements.
- As with all metals, the atomic-scale crystal structures of iron change depending on the temperature and pressure the metal is exposed to.
- Atoms are packed into variations of cubic, as well as hexagonal formations. At room temperatures and normal atmospheric pressure, iron is in what is known as a body-centred cubic (BCC) phase, which is a crystal architecture with eight corner points and a centre point.
- However at extremely high pressure, the crystalline structures transform into 12-point hexagonal forms, or a close packed (HCP) phase.
- At Earth's core, where pressure is 3.5 million times higher than surface pressure — and temperatures are some 6,000 degrees higher — scientists have proposed that the atomic architecture of iron must be hexagonal.

Youtube link: <https://youtu.be/lOABzo9II3c>

Sources: the hindu.



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GS II

Paper 2 Topic: Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

Lok Sabha passes Motion of Thanks on President Pranab Mukherjee's address

The Lok Sabha has passed a Motion of Thanks on President Pranab Mukherjee's address to the joint sitting of Parliament. The motion was passed by the House by a voice vote.

What is "Motion of Thanks" and what it contains?

The President makes an address to a joint sitting of Parliament at the start of the Budget session, which is prepared by the government and lists its achievements. The President's speech is a statement of the legislative and policy achievements of the government during the preceding year and gives a broad indication of the agenda for the year ahead. The address is followed by a motion of thanks moved in each House by ruling party MPs. During the session, political parties discuss the motion of thanks also suggesting amendments.

Amendments to the "Motion of Thanks":

Notices of amendments to Motion of Thanks on the President's Address can be tabled after the President has delivered his Address. Amendments may refer to matters contained in the Address as well as to matters, in the opinion of the member, the Address has failed to mention. Amendments can be moved to the Motion of Thanks in such form as may be considered appropriate by the Speaker.

Limitation:

The only limitations are that members cannot refer to matters which are not the direct responsibility of the Central Government and that the name of the President cannot be brought in during the debate since the Government and not the President is responsible for the contents of the Address.

Provisions governing them:

President's Address and Motion of Thanks are governed by Articles 86 (1) and 87 (1) of the Constitution and Rules 16 to 24 of the Rules of Procedure and Conduct of Business in Lok Sabha.

Sources: the hindu.

SC to consider If personal law Constitutional or not

Questioning the validity of triple talaq, the Centre has sought a fresh debate on issues relating to limitations of freedom to profess, practise and propagate religion in the light of fundamental rights that guarantee every person equality and right to life and liberty.

- The Centre has also called for an authoritative ruling on whether personal laws — as a facet of freedom to practise religion — would be circumscribed by fundamental rights of equality and to live with dignity.



Amid a non-uniform body of Supreme Court decisions on the subject, the government appealed for a decisive ruling on four questions. The questions submitted by the government are:

- Whether the impugned practices of talaq-e-biddat, nikaah halala and polygamy are protected under Article 25(1) of the Constitution of India? Article 25(1) deals with freedom to practise religion.
- Whether Article 25(1) is subject to part III of the Constitution and in particular Articles 14 and 21 of the Constitution of India? Articles 14 ensures right to equality while Article 21 guarantees right to life and liberty.
- Whether personal law is law under Article 13 of the Constitution? Article 13 lays down that all laws should conform to the fundamental rights.
- Whether the impugned practices of talaq-e-biddat, nikaah halala and polygamy are compatible with India's obligations under International treaties and covenants to which India is a signatory?

Background:

In a number of cases, it has been held that personal laws are not subject to Part III of the Constitution that deals with fundamental rights and hence, they cannot be challenged for violating rights guaranteed under Articles 14, 15 and 21. In Krishna Singh Vs Mathura Ahir, 1980, the top court held that "Part III of the Constitution does not touch upon the personal laws of the parties."

- On the other hand, in a line of other judgments, the apex court has tested personal laws on the touchstone of fundamental rights and read down these laws or interpreted them so as to make them consistent with fundamental rights. In Anil Kumar Mhasi Vs Union of India, 1994, the court tested the validity of some sections of the Indian Divorce Act (a personal law for Christians) on the touchstone of fundamental rights.

Way ahead:

The court has hinted that a Constitution Bench may be formed to take up the matter during the summer vacation. Laws that violate fundamental rights can be struck down by a constitutional court but the Supreme Court has exhibited an inconsistent attitude in testing constitutionality of personal laws.

Sources: et.

There's no concept of National Song: SC

The Supreme Court has refused to intervene in a petition seeking a direction to the government to frame a national policy to promote and propagate the 'National Song', along with the National Anthem and the National Flag.

Background:

The decision came on a petition contending that a national policy should be framed "in the spirit of Article 51A to achieve the great golden goals, as set out in the Preamble of the Constitution of India." The petition also sought the court to "ascertain the feasibility of singing/playing the National Anthem and National Song in the Parliament/Assembly, public offices, courts and schools on every working day."

What has the court said?

According to the supreme court, "there is no concept of National Song". Article 51A (a), citing the citizens' fundamental duties, does not refer to 'National Song.' It only refers to National Flag and National Anthem.

Article 51A(a) mandates that citizens should abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem.

Sources: the hindu.



Governor not 'duty-bound' by popular will, says SC

As Tamil Nadu politics witnessed a churn, the State's Governor has come under intense scrutiny for not inviting AIADMK interim general secretary V.K. Sasikala to form the government despite the fact that her faction commanded a majority in the Legislative Assembly. However, a 2011 Supreme Court Judgment empowers Governor to use discretion.

What had the court said?

A 2001 Supreme Court precedent holds that a State Governor should not always be swayed by "popular will" or the "brute" support a chief minister aspirant enjoys from her party MLAs. It said the Constitution empowers the Governor, while appointing a chief minister, to use his discretion to ensure a stable government.

- A Constitution Bench of the Supreme Court had held in the B.R. Kapur versus State of Tamil Nadu in 2001 that the Constitution does not give elected members of a majority party unfettered right to elect an incompetent or disqualified person as chief minister.
- The court also held that "the contention that in all eventualities whatsoever the Governor is bound by the decision of the majority party is not a correct proposition. The Governor cannot be totally deprived of element of discretion in performance of duties of his office, if ever any such exigency may so demand its exercise".

Sources: the hindu.

Paper 2 Topic: Separation of powers between various organs dispute redressal mechanisms and institutions.

SC dismisses TN's review plea on remission power

The Supreme Court has dismissed a review petition filed by the Tamil Nadu government against a 2015 Constitution Bench judgment that a State government has no suo motu power to remit sentences of persons convicted under a Central law and cases investigated by a Central agency like the CBI.

- The verdict was based on a challenge by the Centre to Tamil Nadu's move to remit the life sentence of seven convicts in the Rajiv Gandhi assassination case.

Background:

In 2015, the judgment had held that the Centre, and not the State government, would have "primacy" in deciding whether persons convicted in matters of the CBI or a Central agency should be released or not on remission.

Interpreting Section 435 (2) of the Cr.PC, the court had held that the word 'consultation' meant 'concurrence'. This meant that the Tamil Nadu government should have got the prior consent of the Centre before issuing its February 19, 2014 order to remit the life sentence of seven convicts in the Rajiv Gandhi case.

Sources: the hindu.

Paper 2 Topic: Structure, organization and functioning of the Executive and the Judiciary Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

Latest MoP draft awaits green light from judges

The supreme court collegium is involved in exhaustive consultations in finalising the MoP for appointment of judges.

**Background:**

IN October, 2015, a Constitution Bench led by Justice J.S. Khehar had revived the collegium after declaring the government's NJAC law unconstitutional. The Bench then went on to invite public opinion on ways to improve the opaque collegium system of judicial appointments. After receiving over 11,500 views from the public, the Bench had summarised them and tasked the government to draft a new MoP on December 16, 2015.

The government had submitted MoP to the collegium in August 2016 and this had created impasse between the court and the government. No progress was made over this. The draft is currently with Chief Justice of India T.S. Thakur and awaiting the judges' approval. The past months have seen a stalemate with the judiciary raising objections against the earlier government drafts of the MoP.

What next?

Though both the judiciary and the government have maintained that the pendency of the MoP would not stand in the way of judicial appointments, an amicable resolution to that issue would clear the air on the procedure for appointments of judges to the higher judiciary.

Highlights of the draft:

- To implement the judicial direction to "widen the zone of consideration", the latest MoP draft wants all Supreme Court and High Court judges to be able to recommend names to their respective collegiums.
- Chief Ministers should also have the right to recommend names to the respective High Court collegiums. Similarly, the Attorney General should be allowed to recommend the names of judges to the Supreme Court at the Centre and Advocate-General of States to their respective State High Courts.
- These High Court committees would screen the names of the candidates, their backgrounds, the number of cases they have argued as lawyers, etc, before forwarding them to the High Court collegium.
- Once the High Court collegium clears certain names, they would be sent to a similar appraisal committee at the Supreme Court. This apex-level committee would again sift through the names before they are finally referred to the SC collegium.
- The government reasons that the two-fold vetting process – one by the respective High Court appraisal committee and then by the Supreme Court committee – would ensure transparency in judicial appointments.
- The government has further asked the judiciary to fix an age for High Court judgeship and make it "non-flexible." It also wants the mechanism for redressing complaints against judges to remain within the judiciary.

Sources: the hindu.

Paper 2 Topic: Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.

Nagaland cabinet step up pressure on Centre in revisiting schedule IX -A

The Nagaland state cabinet, while taking serious consideration of the widespread concern expressed by various tribal hohos (apex bodies) and other organisations with regard to certain provisions of Part IX-A of the Constitution relating to municipalities, has decided to submit a memorandum to the prime minister to amend the Constitution through ordinance.

- This is seen as state government's attempt to placate the tribal bodies which is opposing 33% reservation for women in urban local bodies (ULBs) and resorted to violence protest following which polls were called off.



What experts say?

Experts say, Part IX (A) of the Constitution of India – which pertains specifically to municipalities – is not applicable to the state of Nagaland. Part IX (A) does not embrace a state where it is wholly tribal.

- In other words, Part IX (A) is applicable to the states where tribals or scheduled castes are in minority and the majority are non-tribals, non-scheduled castes.

Background:

Article 371(A) accords special provisions to the state of Nagaland. Many believe that Part IXA clashes with Article 371 (A) of the Constitution which guarantees special rights to the state of Nagaland. Under the article, customary laws, social practices, beliefs of the people and the resources of the state are safeguarded from intervention by the Centre and its policies unless the state assembly decides so by a resolution. While provision 243(T) of Part IXA grants reservation to women in municipalities, Naga social groups have said this goes against their customary laws as protected by Article 371(A).

Article 371(A) of the Indian Constitution (Special provision with respect to the State of Nagaland) states that – “Notwithstanding anything in this Constitution, (a) no Act of Parliament in respect of: (i) religious or social practices of the Nagas, (ii) Naga customary law and procedure, (iii) administration of civil and criminal justice involving decisions according to Naga customary law, (iv) ownership and transfer of land and its resources, shall apply to the State of Nagaland unless the Legislative Assembly of Nagaland by a resolution so decides.”

Unrest in Nagaland

THE POLLS TO URBAN LOCAL BODIES (ULBS) were slated for February 1 and a section of tribal bodies had formed Joint Coordination Committee (JCC) to oppose the move



THERE WERE SEVERAL negotiations between the state govt and JCC, however, it failed. On Jan 28 JCC called district-wise bandh



ON JAN 31 THERE WERE violent clashes in Dimapur and Longleng where two people were killed and several injured



ON FEB 1 VIOLENCE BROKE OUT in Mokokchung district. Office of ruling Naga People's Front was attacked, election commission's office ransacked

ON JAN 31 STATE CABINET DECIDED TO WITHHOLD THE POLLS; home minister Rajnath Singh called up chief minister TR Zeliang to inquire about the law and order situation in the state

ON FEB 2 PROTESTERS REFUSED to bury the bodies of those killed on January 31 Incident unless the chief minister and other ministers resign

Sources: et.

Constitution bench to hear Delhi-Centre turf dispute

A two-judge Bench of the Supreme Court has referred to a Constitution Bench a series of appeals filed by the Delhi government for laying down the law on whether the Lieutenant Governor (LG) can unilaterally administer the National Capital without being bound by the “aid and advice” of the elected government.

What's the issue?

The court is hearing a bunch of pleas filed by AAP government challenging the verdict of the Delhi High Court which held that the CM or his ministers could not issue orders without LG’s approval and every decision must be routed through him. The HC had in August last year ruled that the LG was not bound by the “aid and advice” of the Delhi cabinet on any matter.

However, the state government had contended that the HC verdict would subvert the democratic governance structure as the Constitution recognised Delhi as a state with an elected assembly.

What next?

A question that arises for consideration now is whether the appeals would have to be heard by an eleven-judge Constitution Bench of the Supreme Court. This is because a nine-judge bench of the apex court had in 1996 in the NDMC versus State of Punjab case, recognised Delhi as a Union Territory for taxation purposes.

**What the constitution says?**

According to some experts, after receiving aid and advice from Delhi's council of ministers under Article 239AA(4), the LG may or may not agree. If he disagrees on "any matter", he is bound to refer it to the President for a decision. Pending such a decision, the LG can, in case of an urgency, take immediate action. Thus, the LG's discretion is circumscribed by the President's final decision.

Sources: the hindu.

Karnataka Cabinet clears Mekedatu project

Karnataka has decided to implement the Rs. 5,912 crore Mekedatu multi-purpose (drinking and power) project that involves building a balancing reservoir across the Cauvery near Kanakapura in Ramanagaram district.

- However, the project has been opposed by Tamil Nadu on the grounds that it violates the Cauvery tribunal order. But, Karnataka has said that it aims to utilise excess water after releasing 192 tmcft to Tamil Nadu.

What next?

The State government would place the project before the Central Water Commission as well as the Supervisory Committee of the Supreme Court and Ministry of Environment and Forests for taking clearances. A total of 4,996 hectares of forest lands would be submerged under water.

About the project:

Karnataka intends to build a reservoir across river Cauvery near Mekedatu in Kanakapura taluk. It was first proposed along with Shivasamudra hydro power project at Shimsa in 2003 with an intention to use the water for a hydro power station and supply drinking water to Bengaluru city.

- The drinking water and hydroelectric project will have a balancing reservoir to store 66.50 tmcft of Cauvery water.
- The project is estimated to cost 5,912 crore and about 4,900 hectares of forest land will submerge if the project is implemented.

Sources: the hindu.

Paper 2 Topic: Statutory, regulatory and various quasi-judicial bodies.

Govt proposes setting up of Payments Regulatory Board under RBI

The government, keen on promoting digital payments, has proposed to form a separate regulator for the payments industry to resolve disputes, ensure customer protection and check any foul play by dominant players.

Key facts:

Finance minister Arun Jaitley has called for an overhaul of the Payment and Settlements Act 2007 to create the Payments Regulatory Board.

- The board would be under the Reserve Bank of India (RBI). This is being done to avoid criticism that the board would dilute the banking regulator's powers.
- The Payments Regulatory Board will exercise the functions relating to the regulation and supervision of payments and settlement systems under the Act.
- The board would look at interoperability of digital transactions and facilitate competition and innovation among financial technology companies in the payments space.



- It will also be responsible for consumer protection, decide on penalties and create appeal mechanisms, which could ensure faster resolution of disputes over settlement of digital payments.
- The proposed board will have the RBI governor as the chairperson, along with a deputy governor in charge of payments as member, besides an RBI officer nominated by the RBI Board. It will also have three members nominated by the central government.

Background:

The payments industry has been crying for attention in the wake of the explosion of financial technology companies that facilitate transactions. Consumers have embraced their services due to the simplicity they offer. But there have been allegations that dominant banks have been creating hurdles for such companies to protect their turf.

Source: et.

Trai imposed Rs 11 cr penalty on telcos for poor service: Govt

Telecom regulator Trai has imposed over Rs 11 crore penalty on service providers, highest on Aircel, for poor service quality including call drops.

Key facts:

- Telecom Regulatory Authority of India (TRAI) has imposed over Rs 3 crore penalty on Aircel for not meeting set quality parameters for 2G service and Rs 1.56 crore for poor 3G service quality.
- Penalty of Rs 2.27 crore has been imposed on BSNL, Rs 1.64 crore on Reliance Communications (including Reliance Telecom), Rs 89 lakh on Tata Teleservices, Rs 84 lakh Vodafone, Rs 40 lakh on Bharti Airtel, Rs 13.5 lakh on Telenor, Rs 3 lakh on Sistema and Rs 1.5 lakh on MTNL for failing to meet 2G service quality parameters.
- Apart from Aircel, Trai has imposed Rs 70 lakh penalty on BSNL and Rs 2.5 lakh on Vodafone for breaching 3G service quality benchmark.

About Trai:

- It is the independent regulator of the telecommunications business in India.
- It was established in 1997 by an Act of Parliament to regulate telecom services and tariffs in India.
- In January 2000, TRAI act was amended to establish the Telecom Disputes Settlement Appellate Tribunal (TDSAT) to take over the adjudicatory functions of the TRAI.
- The TDSAT was set up to resolve any dispute between a licencor and a licensee, between two or more service providers, between a service provider and a group of consumers. In addition, any direction, TRAI orders or decisions can be challenged by appealing to TDSAT.

Sources: toi.

UIDAI clamps down on 50 fraud sites offering Aadhaar services

In a massive crackdown on unauthorised agencies offering Aadhaar-related services illegally and charging excessive money from the public, UIDAI has got shut down 12 such websites and 12 mobile apps.

- The Unique Identification Authority of India (UIDAI) has further directed authorities for closure of another 26 such fraudulent and illegal websites and mobile applications.

**Background:**

Some websites and mobile apps were luring citizens to share their basic information and Aadhaar number under the pretext of getting them Aadhaar card or offering other Aadhaar related services.

What the law says?

As per Section 70 of the IT Act, the Government has declared the UIDAI's Central Identities Data Repository (CIDR) facilities, Information assets, logistics infrastructure and dependencies installed at UIDAI locations to be critically protected system. And at present, any Aadhaar-related demographic information can only be shared following the procedures laid down in the Aadhaar Act, 2016.

Any violation is punishable under Section 38 and Chapter VII of the Aadhaar Act that provides punishment for "Whoever, not being authorised by the Authority, intentionally accesses or secures, downloads, copies or extracts any data from the Central Identities Data Repository or stored in any removable storage medium."

About UIDAI:

The Unique Identification Authority of India (UIDAI) is a statutory authority established under the provisions of the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 ("Aadhaar Act 2016") on 12 July 2016 by the Government of India, under the Ministry of Electronics and Information Technology (MeitY).

- Prior to its establishment as a statutory authority, UIDAI was functioning as an attached office of the then Planning Commission (now NITI Aayog).
- UIDAI was created with the objective to issue Unique Identification numbers (UID), named as "Aadhaar", to all residents of India that is (a) robust enough to eliminate duplicate and fake identities, and (b) can be verified and authenticated in an easy, cost-effective way.
- Under the Aadhaar Act 2016, UIDAI is responsible for Aadhaar enrolment and authentication, including operation and management of all stages of Aadhaar life cycle, developing the policy, procedure and system for issuing Aadhaar numbers to individuals and perform authentication and also required to ensure the security of identity information and authentication records of individuals.

Sources: [toi](#).

Central Pollution Control Board assessing oil spill

The Central Pollution Control Board (CPCB) is analysing samples from the oil spill resulting from a collision between two ships off the coast of Tamil Nadu recently.

- Clean-up operations are being coordinated by the Coast Guard and involve several disparate organisations.

Background:

Oil spill took place recently off the coast of Tamil Nadu due to a collision between two ships. The Hyderabad-based Indian National Centre for Ocean Information Services has estimated that about 20 tonnes of oil may have leaked when the vessels collided. It is estimated that about 43 kms of the Tamil Nadu coastline may have been affected.

**About CPCB:**

The Central Pollution Control Board (CPCB) of India is a statutory organisation under the Ministry of Environment, Forest and Climate Change (MoEF&CC). It was established in 1974 under the Water (Prevention and Control of pollution) Act, 1974.

- CPCB is also entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981.
- It serves as a field formation and also provides technical services to the Ministry of Environment and Forests under the provisions of the Environment (Protection) Act, 1986.
- It Co-ordinates the activities of the State Pollution Control Boards by providing technical assistance and guidance and also resolves disputes among them.

Sources: the hindu.

56th Meeting of the Central Geological Programming Board

The 56th Central Geological Programming Board (CGPB) meeting of the Geological Survey of India (GSI), Ministry of Mines is being held in New Delhi under the Chairmanship of the Secretary, Ministry of Mines Shri Balvinder Kumar.

- During the meeting, the board will deliberate and discuss recommendations of all the 12 thematic committees of the CGPB as well as the State Geological Programming Boards (SGPBs) and finalize the Field Season Program of GSI for the year 2017-18.

About CGPB:

The Central Geological Programming Board (CGPB) is an important platform for the Geological Survey of India (GSI), Ministry of Mines wherein the Annual Field Season Program (FSP) of GSI is finalized.

- The members of CGPB and other stakeholders like State Governments, Central/State Government Exploration Agencies, PSUs etc. present their proposals for collaborative work with GSI.
- Based on the priorities set by the Government of India and the importance and urgency of proposals presented by the members and stakeholders, the Annual Program of GSI, for Survey & Mapping, Exploration, Research and Development, and Training & Capacity building, during the forthcoming financial year is given a final shape.

Sources: pib.

National Productivity Week Celebrations

12th-18th February is celebrated as the 'National Productivity Week' every year by the national Productivity Council.

- The theme chosen for this year's observance is "From Waste to Profits-through Reduce, Recycle and Reuse".
- As part of the programme, Departmental Secretaries, PSU's, Industry Associations, Autonomous Bodies, Universities, Local Productivity Councils & NPC Regional Directorates will actively organize workshops, essay/painting/slogan competitions, debates, training programs, etc. during the week to spread the message of productivity amongst all stakeholders.

**Background:**

National Productivity Council, an autonomous body under Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Government of India was established on 12th February, 1958, with the objective of stimulating and promoting productivity and quality consciousness across all sectors in the country.

Sources: pib.

MoU signed between Publications Division and Sasta Sahitya Mandal for Joint Publication of books

Publications Division, a Media Unit under Ministry of Information & Broadcasting and Sasta Sahitya Mandal (SSM) have signed a Memorandum of Understanding (MoU) for joint publication of books on heroes of freedom struggle, cultural leaders and other eminent personalities who worked towards Nation development.

Key facts:

- The agreement is a joint initiative between the two organisations to sensitise the young generation about India's rich and diverse culture and history.
- It would promote availability of good literature for the people on diverse topics.
- The agreement would also provide an opportunity, for both the organizations to enhance their reach by displaying and offering on sale any of publications published by either of the organizations.
- This MOU is valid for three years from the date of signing of this MOU, which can be extendable for similar terms by mutual agreement.

About SSM:

SSM is a Trust established by Mahatma Gandhi in 1925 and mandated to promote, develop and publish high class literature in Hindi and to make it available to the public at affordable prices. Since its inception SSM has brought out more than 2500 titles on Indian culture, heritage, Indian epics, & stories and has created a huge corpus of children literature to infuse in them the values of life and love for the nation and humanity.

Sources: pib.

Cauvery Tribunal gets new head

The government has appointed Justice Abhay Manohar Sapre of the Supreme Court as chairman of the Cauvery Water Disputes Tribunal. He was nominated for the post by Chief Justice J.S. Khehar. The post fell vacant following the resignation of Justice Balbir Singh Chauhan.

Background:

The Cauvery Water Disputes Tribunal (CWDT) was constituted by the Government of India on 2nd June 1990 to adjudicate the water dispute regarding inter-state river Cauvery and the river valley thereof. The Tribunal had also passed an Interim Order in June, 1991 and further Clarificatory Orders on the Interim Order in April, 1992 and December, 1995. The Cauvery Water Disputes Tribunal has submitted its reports and decision under Section 5 (2) of Inter-State River Water Disputes Act, 1956 to Government on 5th February, 2007.

Sources: the hindu.



75th meeting of Central Wakf Council

75th meeting of Central Wakf Council was recently held in New Delhi. The meeting was chaired by the Union Minister of State for Minority Affairs (Independent Charge) & Parliamentary Affairs Shri Mukhtar Abbas Naqvi.

- Various obstacles in development of wakf properties and utilisation of these properties for welfare of the society were discussed during the meeting.
- Efforts of the central government to ensure that all the wakf boards and their records across the country are made digital were also highlighted during the meeting.

About Central Wakf Council:

Central Wakf Council, India is an Indian statutory body established in 1964 by the Government of India under Wakf Act, 1954 for the purpose of advising it on matters pertaining to working of the State Wakf Boards and proper administration of the Wakfs in the country.

- The Council is headed by a Chairperson, who is the Union Minister in charge of Wakfs and there are maximum 20 other members, appointed by Government of India as stipulated in the Wakf Act.

What is Wakf?

Wakf is a permanent dedication of movable or immovable properties for religious, pious or charitable purposes as recognized by Muslim Law, given by philanthropists. The grant is known as mushrut-ul-khidmat, while a person making such dedication is known as Wakf.

Sources: pib.

Paper 2 Topic: Government policies and interventions for development in various sectors and issues arising out of their design and it.

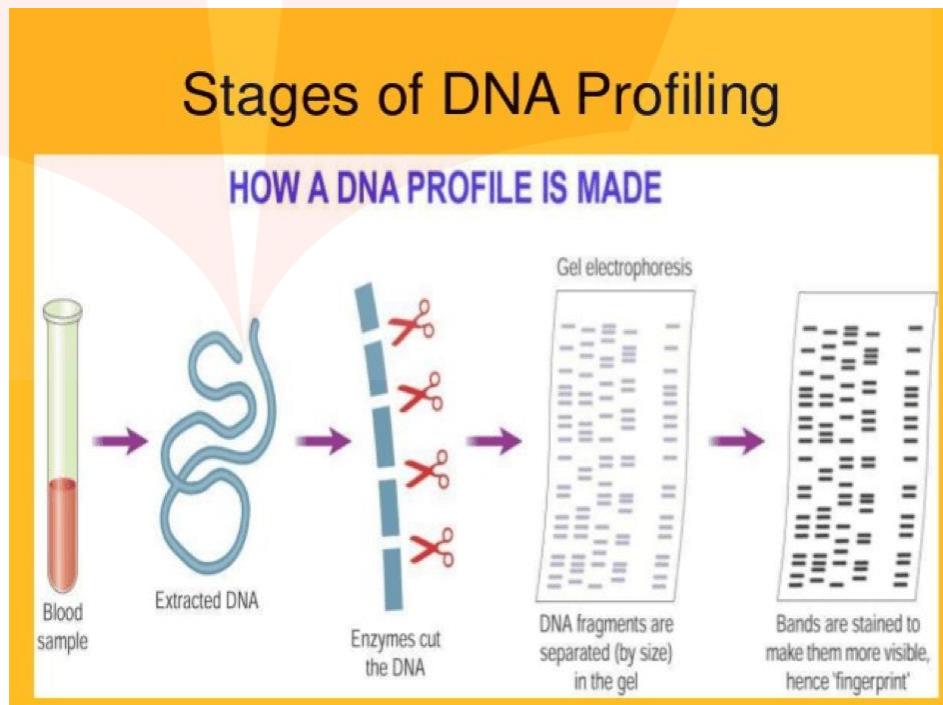
Andhra Pradesh working on system to DNA-tag convicts

The Andhra Pradesh government plans to bring in legislation that will allow the State police and investigating agencies to collect and store DNA samples in a centralised database.

- The move has come in for close scrutiny, as the Centre first prepared a draft bill on the issue in 2012, but the legislation ran into severe opposition from activists on the ground that it violated privacy. It has since been on hold.

Background:

The Centre's Human DNA Profiling Bill, 2015, was prepared by the Department of Biotechnology and the Hyderabad-based Centre for DNA-Fingerprinting





and Diagnostics but is yet to be cleared by the Union Cabinet. Several organisations and individuals, however, raised concerns that the bill gave sweeping powers to government to mine the database and use it for purposes beyond just solving crime.

Highlights of the Human DNA Profiling Bill:

- The bill proposes to allow collection of samples from private parts of human body for DNA profiling and data preservation with the approval of a regulatory body.
- It suggests that a National DNA Profiling Board and a National DNA Bank be set up in Hyderabad, with every state having a regional DNA data bank. The DNA Data Bank would maintain records of samples found at crime scenes, or from suspects, offenders, missing persons, volunteers, etc.
- The bill also makes it clear that no DNA Laboratory shall undertake DNA profiling without the prior approval of the DNA Board.
- If a foreign country requests DNA profiling, the DNA Bank will coordinate through CBI or a concerned department.
- The bill mandates that the DNA profiles or samples be kept confidential, and they should be used only for establishing identity of a person and nothing else.
- Government investigation agencies and judiciary, among others, can seek information from Data Banks. For unauthorized use of data, a stringent punishment is provided.

Sources: the hindu.

Bill in LS to make holding of scrapped notes punishable

Government has introduced in Lok Sabha the Specified Bank Notes (Cessation of Liabilities) Bill that provides for holding, transfer and receiving of old Rs 500 and Rs 1000 currency notes a criminal offence, punishable with a minimum fine of Rs 10,000.

Key facts:

- The Bill seeks to end the liability of RBI and the government on the currency notes demonetised in November last.
- Once passed by Parliament, the bill will replace an ordinance promulgated on December 30 last which provides for a fine of Rs 10,000 or five times the cash held, whichever is higher, on holding of more than 10 banned 1,000 and 500 Rupee notes.
- The bill states that the government took the demonetisation decision on the recommendations of the RBI's central board to eliminate unaccounted money and fake currency notes from the financial system.
- Apart from aiming at ceasing the liability on old notes, the bill also provides that an Indian citizen, who was outside the country between November 9 and December 30, will be entitled to tender the demonetised noted within the grace period under rules provided by the RBI.
- It also prohibits the holding, transferring or receiving of these notes from December 31, 2016.
- It also seeks to impose penalty for contravention of the ordinance, which it will replace, and to confer power upon the court of a first class Magistrate to impose penalty.

Background:

The ordinance provided for amending the Reserve Bank of India (RBI) Act, 1934 to provide legislative support for extinguishing the central bank and government's liability on the demonetised banknotes that are not returned.



The main objectives of the ordinance were to provide clarity and finality to the liability of the RBI and the Government of India for the specified bank notes (of 1,000 and 500); to provide an opportunity to those persons who were unable to deposit the SBNs within the time provided; and to declare holding, transferring or receiving SBNs as illegal, with provisions for penalty for contravention of any of the provisions of the Ordinance.

Sources: [toi](#).

Govt introduces bill for wage payment via e-mode, cheques

Government has introduced a bill in Lok Sabha to enable Centre and states to specify the industries which will have to pay wages to workers only through cheques or crediting it to their bank accounts.

Key facts:

- The Payment of Wages (Amendment) Bill 2017 seeks to enable employers to pay wages to workers through cheque or crediting to their bank accounts without obtaining written authorisation of the employees.
- The bill will replace the Payment of Wages (Amendment) Bill 2016, which was introduced in Lok Sabha on December 15, 2016 and also seeks to repeal the Payment of Wages (Amendment) Ordinance 2016 promulgated on December 28, 2016.
- The bill provides that “appropriate Government may, by notification in the Official Gazette, specify the industrial or other establishment, the employer of which shall pay to every person employed in such industrial or other establishment, the wages only by cheque or by crediting the wages in his bank account”.
- The amendment enables the Centre as well as state governments to notify industries where employers shall have to pay wages either through cheque or crediting them to workers’ bank accounts.
- The bill also enables employers to pay through cheque or e-mode without the written authorisation of the worker. It provides that non-notified industries will have the option to pay “in current coin or currency notes or by cheque or by crediting wages in the bank account of the employee”.
- As per the bill, the new procedure will serve the objective of “digital and less-cash economy”.
- At present, with the written authorisation of an employee, wages can be given through cheque or transferred to his or her bank account.

Sources: [toi](#).

Centre not in favour of new law for CBI

The Central government has turned down the recommendation of a Parliamentary Committee to come up with a new law for the Central Bureau of Investigation (CBI), to replace the 70-year-old Delhi Special Police Establishment (DSPE) Act which governs the agency, stating that it might impinge on the federal structure of the Constitution.

Background:

The 85th report of the Department-Related Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice, which was recently tabled in Parliament, had strongly recommended that the Department of Personnel and Training (DoPT) revisit the 24th report of the committee on “The Working of the Central Bureau of Investigation.”

Why have a new law?

The Delhi Special Police Establishment (DSPE) Act, 1946 governs the working of the Central Bureau of Investigation. The Committee is of the view that the powers given to the CBI under the DSPE Act are not adequate considering the pace of changing times and in this context, the Committee recommended for a separate statute for the CBI.

Also, the Committee is of the view that the CBI is the only agency in India which has acquired and accumulated the necessary expertise in successfully investigating wide hues of transnational, terrorist and organised crimes and that enacting an enabling legislation for the CBI will be a major step toward evolving it into an independent and accountable agency which specialises in prevention, investigation and prosecution of crimes.

Why the government is not willing to enforce a new law?

In its action-taken reply, the DoPT said the agency, since the submission of the 24th report, had grown into a more dynamic and efficient organisation. It also listed the measures taken to strengthen the CBI.

Also, the government says the new law may impinge on the federal structure of the Constitution and the mandate of Parliament to enact a law which would be in conflict with Entry 2 of List II which is in the domain of the States.

Present scenario:

The Delhi Special Police Establishment (DSPE) Act, 1946 governs the working of the Central Bureau of Investigation.

Sources: the hindu.

RBI to set up in-house enforcement cell

The Reserve Bank of India has decided to set up an enforcement department to speed up regulatory compliance.

Key facts:

- The department will be operational from the next financial year.
- It will mainly deal with the penalties imposed on banks for violation of norms. Currently, the penalties are decided by the banking and non-banking supervision departments.
- The department aims to develop a sound framework and process for enforcement action.

Background:

Enforcement deals with cases of non-compliance with regulations noticed either through the surveillance process or otherwise. Enforcement is an integral part of the supervisory process. RBI takes enforcement action even now. But focussed attention will increase the regulatory compliance.

Sources: the hindu.

Mission XI Million

With the vision of making football the sport of choice in India, Mission XI Million, the biggest school sport outreach programme was recently launched by the government.

**Key facts:**

- A first of its kind, the programme will encourage children to play the game of football, gain healthy habits and learn important life lessons in teamwork and sportsman spirit.
- The approach is to work with school principals and sports teachers and encourage and incentivize them to make children play football games on regular basis.
- Designed with international sporting expertise, but keeping in mind the ground realities of our huge and varied country, it aims to instill the passion for football in 11 million children from every part of the country.
- Mission XI Million also equips parents and schools with the equipment and the knowledge about how to make regular play a reality for their wards.

Sources: pib.

'Indradhanush 2.0' on anvil for recapitalization of PSBs

Government plans to come out with 'Indradhanush 2.0', a comprehensive plan for recapitalisation of public sector lenders, with a view to make sure they remain solvent and fully comply with the global capital adequacy norms, Basel-III.

- 'Indradhanush 2.0' will be finalised after completion of the Asset Quality Review (AQR) by the Reserve Bank, which is likely to be completed by March-end.

Background:

The RBI had embarked on the AQR exercise from December 2015 and asked banks to recognise some top defaulting accounts as non-performing assets (NPAs) and make adequate provisions for them. It has had a debilitating impact on banks' numbers and their stocks. The central bank has set a deadline of March 2017 to complete the AQR exercise.

About Indradhanush mission:

Under Indradhanush roadmap announced in 2015, the government had announced to infuse Rs 70,000 crore in state-run banks over four years while they will have to raise a further Rs 1.1 lakh crore from the markets to meet their capital requirement in line with global risk norms, known as Basel-III.

- The mission includes the seven key reforms of appointments, board of bureau, capitalisation, de-stressing, empowerment, framework of accountability and governance reforms.
- In line with the plan, public sector banks were given Rs 25,000 crore in 2015-16, and similar amount has been earmarked for the current fiscal. Besides, Rs 10,000 crore each would be infused in 2017-18 and 2018-19.

Sources: the hindu.

SC strikes down provisions of Karnataka quota law on promotion

The Supreme court has set aside provisions of the 'Karnataka Determination of Seniority of the Government Servants Promoted on the Basis of Reservation (to the posts in the civil services of the State) Act', 2002, which did away with 'catch up' rule and provided consequential seniority to persons belonging to Schedule Castes and Schedule Tribes in promotion.

- The court observed, "In order to provide reservation in promotions, the states must first determine whether the criteria of 'inadequacy of representation', 'backwardness' and 'overall efficiency' are fulfilled."
- Relying on a constitution bench judgement, the court said the provisions of the Act are ultra vires to Articles 14 (right to equality) and 16 (equality of opportunity in Government service) of the Constitution.

What is catch up rule?

'Catch up' rule means that if a senior candidate of general category is promoted after SC/ST candidates, he would regain his seniority in promotion over the juniors promoted ahead of him under the reserved vacancies.

What else has the court said?

Under the 85th amendment to the Constitution, liberty has been given to states to give reservation in promotion with consequential seniority under Article 16(4A), if warranted under the criterias of 'backwardness, 'inadequacy of representation' and 'overall efficiency'.

Thus, it is clear that exercise for determining 'inadequacy of representation', 'backwardness' and 'overall efficiency', is a must for exercise of power under Article 16(4A). Mere fact that there is no proportionate representation in promotional posts for SCs and STs is not by itself enough to grant consequential seniority to promotees who are otherwise junior and thereby denying seniority to those who are given promotion later on account of reservation policy.

Sources: the hindu.

Karnataka assembly passes bill to allow 'Kambala'

Paving the way for the conduct of kambala, traditional buffalo race, the Karnataka Legislative Assembly has passed the Prevention of Cruelty to Animals (Karnataka Amendment) Bill, 2017. The Bill seeks to exempt kambala and bullock-cart racing from the ambit of the Prevention of Cruelty to Animals (PCA) Act, 1960.

Background:

The clamour for Kambala was spurred by the success of the stir in Tamil Nadu for allowing Jallikattu, which led to the state government bringing a similar amendment to the Central act. Kambala committees and various Kannada organisations had held protests at several places against the ban.

Kambala is currently stayed by the High Court following a petition by the People for the Ethical Treatment of Animals (PETA).

**Key facts:**

- The bill noted the significant role played by traditional sports events "Kambala" and "Bulls race or Bullock cart race" in preserving and promoting traditions and culture among the people in the state.
- It also took note of their vital role in ensuring survival and continuance of native breeds of cattle in deciding to exempt the conduct of the races from the ambit of Prevention of Cruelty to Animals Act.

About Kambala:

Kambla in its traditional form is non-competitive with buffalo pairs made to race one after another in paddy fields, which is considered a thanksgiving to the Gods for protecting the animals from diseases.

- Over the years, it has however become an organised sport with animal rights activists claiming that the buffaloes run in the race due to fear of being beaten, which the organisers dismiss, saying no violence is involved and that several modifications had been made to ensure that it is an animal friendly event.



Muziris Heritage Project set to turn over a new leaf

The uniquely ambitious Muziris Heritage Project (MHP), which seeks to link up heritage sites, restore monuments and community spaces along the riparian North Paravur, Chendamangalam, Chittattinkara, Vadakkekara, Pallippuram, Kodungalloor, Mathilakam, Eriyad and Methala and liven them up with community-based projects and cultural shows from the region, is on the cusp of being revitalised and fast-tracked by the Kerala State Tourism Department.

- As a first step, a working team of project consultants and officials is visiting the Muziris region, putting to technical scrutiny each site that's up and running for upgrade as originally envisaged, besides surveying new sites for making it a participatory conservation tourism initiative with renewed thrust on cultural research and learning.

About the Muziris Heritage Project:

The Muziris heritage Project utilizes at a global level the possibilities of a region, which lost its glory centuries ago. Muziris is an ancient port town in little Kerala still holds a kind of beauty that is filled with history and culture.

The Government of Kerala has initiated the Muziris Heritage Project to reinstate the historical and cultural significance of the legendary port of Muziris. The region is dotted with numerous monuments of a bygone era that conjure up a vast and vivid past. The entire project is designed to involve and integrate the local community in all intended developmental initiatives.

Sources: the hindu.

Cabinet approves Amending the Collection of Statistics Act, 2008 (7 of 2009)

The Union Cabinet has approved a proposal to introduce a Bill in Parliament to extend the jurisdiction of the Collection of Statistics Act, 2008 to Jammu & Kashmir on statistics relevant to any matters under any of the entries specified in the List-I (Union List) and the List- III (Concurrent List) in the Seventh Schedule to the Constitution, as applicable to Jammu & Kashmir under the Constitution (Application to Jammu & Kashmir) Order, 1954.

Key facts:

- The Amendment is aimed at strengthening data collection mechanism in the State of Jammu & Kashmir.
- The amendment will provide for extending the jurisdiction of the Act to Jammu & Kashmir State in respect of matters not reserved for the State as per the Constitution (Application to Jammu and Kashmir) Order 1954.
- It will also provide for appointing a nodal officer at the Centre and in each State/Union Territory to effectively coordinate data collection activities and provide consultation to Government Departments for avoiding unnecessary duplication, etc.

About the Collection of Statistics Act 2008:

The Collection of Statistics Act, 2008 was enacted to facilitate the collection of statistics on economics, demographic, social, scientific and environmental aspects etc.

- The Act extends to the whole of India, except Jammu & Kashmir. The Jammu & Kashmir State legislature enacted the Jammu & Kashmir Collection of Statistics Act, 2010, which extends to the whole of the State of Jammu & Kashmir and is almost a replica of the central legislation.

Need for an amendment:

The Collection of Statistics Act, 2008 and the Jammu & Kashmir Collection of Statistics Act, 2010 are not applicable to statistical subjects falling in the Union List, as applicable to the Jammu & Kashmir under the Constitution (Application to Jammu & Kashmir) Order 1954. This has created a legislative vacuum. Moreover, the concurrent jurisdiction to be



exercised by the Centre in Jammu & Kashmir has also not been provided for, in the Collection of Statistics Act, 2008. The amendment is intended to address this vacuum.

Sources: pib.

Cabinet approves acquisition of subsidiary banks of State Bank of India

The Union Cabinet has approved the acquisition by the State Bank of India of its subsidiary banks namely State Bank of Bikaner and Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala and State Bank of Travancore.

- The acquisition of subsidiary banks of State Bank is an important step towards strengthening the banking sector through consolidation of public sector banks. It is in pursuance of the Indradhanush action plan of the Government and it is expected to strengthen the banking sector and improve its efficiency and profitability.

Benefits of merger:

- The merger is likely to result in recurring savings, estimated at more than Rs. 1,000 crore in the first year, through a combination of enhanced operational efficiency and reduced cost of funds. Existing customers of subsidiary banks will benefit from access to SBI's global network.
- The merger will also lead to better management of high value credit exposures through focused monitoring and control over cash flows instead of separate monitoring by six different banks.
- The acquisition under Section 35 of the State Bank of India Act, 1955 will result in the creation of a stronger merged entity. This will minimize vulnerability to any geographic concentration risks faced by subsidiary banks.
- It will also create improved operational efficiency and economies of scale. It will also result in improved risk management and unified treasury operations.

Background:

The merger proposal was announced in May 2016 and was scheduled for March 2017.

Sources: the hindu.

Cabinet's nod to establishment of new FLRP

The Union Cabinet has approved the establishment of Food Legumes Research Platform (FLRP) at Amlaha in Madhya Pradesh.

Key facts:

- The research platform will be established with satellite hubs in West Bengal (for pulses) and Rajasthan (for natural resource management) by the International Centre for Agricultural Research in Dry Areas (ICARDA).
- The Madhya Pradesh government will provide 71 hectares (or 175.42 acre) of land at Amlaha Farm for the project on rent of Re 1 per acre per year for 30 years on lease.
- The Cabinet also gave 'in principle' approval for conferring on FLRP an international status as contemplated in Clause 3 of the United Nations (Privileges and Immunities) Act, 1947.
- The platform is aimed at contributing significantly towards reducing poverty, improving food security, improving nutrition and health, and sustaining the natural resource base.

**Significance of this move:**

The establishment of FLRP will enable India to harness the best of international science in meeting the emerging food security challenges. A major international R&D institution will make India an even bigger centre for agricultural research in the world and this in turn, will attract further research and development investment in the country.

About ICARDA:

The International Center for Agriculture Research in the Dry Areas (ICARDA), a member of the CGIAR, supported by the CGIAR Fund, is a non-profit agricultural research for development institute that aims to improve the livelihoods of the resource-poor across the world's dry areas.

- Established in 1977, the ICARDA's founding mandate is to promote agricultural development in the dry areas of developing countries.

Sources: the hindu.

Set up mechanism to delete sex determination ads: SC

The Supreme Court has ordered three Internet giants — Google, Microsoft and Yahoo — to immediately set up their own in-house expert bodies to keep tabs on and delete online pre-natal sex determination advertisements. The court said the intent of the order was to make these search engines "responsive to Indian law."

- This step is in addition to the Ministry of Health and Family Welfare's move to set up a nodal agency to receive complaints on violation of Section 22 of the 1994 Act.

Background:

Section 22 of the Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act of 1994 prohibits advertisements relating to pre-natal determination of sex and imposes punishment. However, ads continue to appear online, rendering the law toothless.

What else has the court said?

- The court ordered that the search engines "shall appoint their 'In-House Expert Body' which shall take steps to see that if any words or any key words that can be shown on the Internet which has the potentiality to go counter to Section 22 of the 1994 Act, should be deleted forthwith."
- It also said that the in-house expert body "shall on its own understanding" delete anything that violates the letter and spirit of language of Section 22 of the 1994 Act. In case of doubt, they are free to approach the Ministry's nodal agency and be guided by the latter.

About PCPNDT Act:

The Pre-conception & Pre-natal Diagnostics Techniques (PC & PNDT) Act, 1994 was enacted in response to the decline in Sex ratio in India, which deteriorated from 972 in 1901 to 927 in 1991.

- The main purpose of enacting the act is to ban the use of sex selection techniques before or after conception and prevent the misuse of prenatal diagnostic technique for sex selective abortion.
- Offences under this act include conducting or helping in the conduct of prenatal diagnostic technique in the unregistered units, sex selection on a man or woman, conducting PND test for any purpose other than the one mentioned in the act, sale, distribution, supply, renting etc. of any ultra sound machine or any other equipment capable of detecting sex of the foetus.



Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994 (PNDT), was amended in 2003 to The Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition Of Sex Selection) Act (PCPNDT Act) to improve the regulation of the technology used in sex selection. The Act was amended to bring the technique of pre conception sex selection and ultrasound technique within the ambit of the act. The amendment also empowered the central supervisory board and state level supervisory board was constituted. In 1988, the State of Maharashtra became the first in the country to ban pre-natal sex determination through enacting the Maharashtra Regulation of Pre-natal Diagnostic Techniques Act.

Sources: the hindu.

Government announces expansion of rotavirus vaccine

The government has announced the expansion of rotavirus vaccine in five additional states under its Universal Immunisation Programme (UIP). Now, the vaccine will be expanded to Assam, Tripura, Madhya Pradesh, Rajasthan and Tamil Nadu.

- The announcement came after 38 lakh children were vaccinated in four states – Haryana, Himachal Pradesh, Andhra Pradesh and Odisha when the vaccine was first introduced.
- The vaccine will prevent Rotavirus diarrhoea in children which accounts for approximately 40% of hospitalizations from diarrhoea in India.

Background:

Diarrhoea is one of the biggest killers in children and rotavirus is one of the most common causes of severe diarrhoea in children less than 2 years of age. Rotavirus diarrhoea is responsible for nearly 78,000 deaths, 32 lakh out-patient visits and nearly 9 lakh hospitalizations every year.

Rotavirus-Signs and Symptoms:

- Kids with a rotavirus infection have fever, nausea, and vomiting, often followed by abdominal cramps and frequent, watery diarrhea.
- Kids may also have a cough and runny nose.
- Sometimes the diarrhea that accompanies a rotavirus infection is so severe that it can quickly lead to dehydration.
- As with all viruses, though, some rotavirus infections cause few or no symptoms, especially in adults.

Transmission:

Rotavirus is transmitted by the faecal-oral route, via contact with contaminated hands, surfaces and objects, and possibly by the respiratory route. Viral diarrhea is highly contagious.

About UIP:

Universal Immunization Programme is a vaccination program launched by the Government of India in 1985. It became a part of Child Survival and Safe Motherhood Programme in 1992 and is currently one of the key areas under National Rural Health Mission(NRHM) since 2005.

- The program consists of vaccination for ten diseases- tuberculosis, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, measles, Hepatitis B, Diarrhoea, Japanese Encephalitis and Pneumonia.
- Hepatitis B was added to the UIP in 2007.
- In 2014 it was announced that four vaccines will be added to the program, namely rotavirus, rubella and Japanese encephalitis, as well as the injectable polio vaccine.

Sources: the hindu.



90,095 more affordable houses sanctioned for urban poor under PMAY(Urban)

Ministry of Housing & Urban Poverty Alleviation has approved construction of 90,095 more affordable houses for the benefit of urban poor under Pradhan Mantri Awas Yojana (Urban) with an investment of Rs.5,590 cr and central assistance of Rs.1,188 cr.

- With this, construction of a total number of 16,51,687 affordable houses for the benefit of urban poor has been sanctioned so far under PMAY (Urban) with a total investment of Rs.89,072 cr with central assistance of Rs.25,819 cr.

About PMAY-Urban:

The Pradhan Mantri Awas Yojana (Urban) Programme launched by the Ministry of Housing and Urban Poverty Alleviation (MoHUPA), in Mission mode envisions provision of Housing for All by 2022, when the Nation completes 75 years of its Independence.

The Mission seeks to address the housing requirement of urban poor including slum dwellers through following programme verticals:

- Slum rehabilitation of Slum Dwellers with participation of private developers using land as a resource.
- Promotion of Affordable Housing for weaker section through credit linked subsidy.
- Affordable Housing in Partnership with Public & Private sectors.
- Subsidy for beneficiary-led individual house construction /enhancement.



Key facts:

- The beneficiaries are poor and people living under EWS and LIG categories in the country.
- The scheme is divided into three phases. In the first phase, a total of 100 cities will be covered from April 2015 to March 2017. In phase two, 200 cities will be covered from April 2017 to March 2019. In the third phase, the leftover cities will be covered from April 2019 to March 2022.
- The government is providing an interest subsidy of 6.5% on housing loans which can be availed by beneficiaries for 15 years from start of loan date.
- The government will grant Rs 1 lakh to all the beneficiaries of the scheme. In addition, Rs 1.5 lakh will be given to all eligible urban poor who want to construct their houses in urban areas or plan to go for renovation in their existing houses. One can also avail loans under this scheme to build toilets in existing houses.

Sources: pib.

While Google and Uber fight, Indian govt throws out red carpet for self-driven cars

India could soon see driverless cars on its roads as proposed amendments to the motor vehicles law will empower the government to permit the testing of such vehicles, an area in which companies such as Google, Tesla and Uber are heavily engaged.

- The government will allow testing of these vehicles on a case-by-case basis once the law is in place. The move will allow Indian carmakers and technology firms to join the global race to develop self-driving cars.

**Background:**

The new provision is part of the Motor Vehicles (Amendment) Bill, 2016, which had grabbed headlines for its focus on safety and hefty penalties for traffic violations. The Bill, introduced in Parliament in August last year, has since been referred to a parliamentary standing committee.

Highlights of the Motor Vehicles (Amendment) Bill, 2016:

The Motor Vehicles (Amendment) Bill, 2016 was introduced in Lok Sabha in August, 2016. The Bill seeks to amend the Motor Vehicles Act, 1988. The Act provides for standards for motor vehicles, grant of driving licenses, and penalties for violation of these provisions.

- **National Transportation Policy:** The Bill requires the central government to develop a National Transportation Policy, in consultation with the states. The Policy will: (i) establish a planning framework for road transport, (ii) develop a framework for grant of permits and schemes, and (iii) identify and specify priorities for the road transport system.
- **Recall of vehicles:** The Bill allows the central government to order for recall of motor vehicles if a defect in the vehicle may cause damage to the environment, or the driver, or other road users. Vehicles may also be recalled if defects in a vehicle are reported to the central government. The manufacturer will have to (i) reimburse the buyers for the full cost of the vehicle, or (ii) replace the defective vehicle with another vehicle with similar or better specifications.
- **Compulsory insurance:** The Bill requires the central government to constitute a Motor Vehicle Accident Fund. The Fund will provide compulsory insurance cover to all road users in India. The Fund will be credited with: (i) a cess or tax as approved by the central government, (ii) a grant or loan made by the central government, or (iii) any other source as prescribed by the central government. It will be managed by an authority specified by the central government.
- **Care for road accident victims:** The central government will develop a scheme for cashless treatment of road accident victims during golden hour. The Bill defines golden hour as the time period of up to an hour following a traumatic injury, during which the likelihood of preventing death through prompt medical care is the highest. The Bill also increases the compensation for death in a hit and run case from Rs 25,000 to Rs two lakh or more, as prescribed by the central government.
- **Protection of good samaritans:** The Bill defines a good samaritan as a person who renders emergency medical or non-medical assistance to a victim at the scene of an accident. The assistance must have been (i) in good faith, (ii) voluntary, and (iii) without the expectation of any reward. Such a person will not be liable for any civil or criminal action for any injury to or death of an accident victim. The central government may, through rules, provide for procedures related to their questioning or disclosure of personal information.
- **Offences and penalties:** The Bill increases the penalties for several offences under the Act. For example, the maximum penalty for driving under the influence of alcohol or drugs has been increased from Rs 2,000 to Rs 10,000. If a motor vehicle manufacturer fails to comply with construction or maintenance standards of motor vehicles, the penalty may be a fine of up to Rs 100 crore, or imprisonment up to one year, or both.
- The Bill also recognizes offences committed by juveniles. In such cases the guardian of the juvenile or owner of the motor vehicle will be liable unless they prove that: (i) the offence was committed without their knowledge, or (ii) they exercised all due diligence to prevent commission of the offence.

Sources: et.



Ministry of UD wants States and Cities to go beyond taking small steps for rapid urban transformation

Ministry of Urban Development has evolved a new reform matrix to enable State and City Governments go beyond the present incrementalism of taking small steps towards implementing transformational reforms over the next three years, for a turn around in urban governance, planning and finance. These include five major transformational reforms to be implemented based on report of Group of Secretaries.

Background:

The concerned Group of Secretaries in their report on urban sector have recommended that "After a review of the schemes over the years, the Group felt that instead of an incremental approach, the time has come for ushering in transformational reforms in Governance, Planning and Finance".

Major reforms recommended by the Group of Secretaries are:

- **Moving to a Trust and Verify Approach:** Instead of the present practice of verifying first and approving later, it has been recommended that trust needs to be reposed in the citizens and approvals may be accorded first and to be verified later, inverting the model of verifying first and approving later which is resulting in huge delays. This 'Trust and Verify' approach has been recommended in respect of Permissions for building construction, change of title in municipal records (mutation) and Birth and Death registration, involving the largest number of physical interactions between city governments and citizens.
- **Formulating Land Titling Laws:** The Group quoting a study by McKinsey noted that over 90% of the land records in the country are unclear and land market distortions and unclear land titles are costing the country 1.30% of GDP per year and accordingly recommended enactment of Land Titling Laws and their implementation in a specific time frame.
- **Credit Rating of Urban Local Bodies.**
- **Value Capture Financing:** Noting that the total revenues of the municipal sector accounts for only 0.75% of the country's GDP as against 6% for South Africa, 5% for Brazil and 4.50% for Poland, the Group recommended Municipal Bonds further to Credit Rating of ULBs and Value Capture Finance tools for meeting the capital expenditure needs of cities.
- **Improving Professionalism of ULBs:** Quoting investment bank Goldman Sachs report, the Group of Secretaries noted that a bureaucracy that is based on merit rather than seniority could add nearly a percentage point annually to the country's per capita GDP growth. It also expressed concern over shortage of qualified technical staff and managerial supervisors in ULBs preventing innovation, the Group recommended induction of professionals in city governments by encouraging lateral induction and filling top positions in cities (Commissioners and Heads of Finance and Revenue) through open competition.

Way ahead:

To incentivize, implementation of these five transformational reforms, the Ministry of Urban Development has proposed to increase Reform Incentive Fund from Rs.500 cr during 2017-18 to over Rs.3,000 cr per year over the next three years of implementation period. Cities will be ranked based on performance under each reform category for providing reform incentive. Rs.400 cr was distributed during 2016-17 for those who pursued reforms indicated in AMRUT Guidelines.

Ministry will also discuss with States and UTs new initiatives viz., Transit Oriented Development Policy, Metro Policy, Green Urban Mobility Scheme, Livability Index for Cities, Value Capture Policy and Fecal Sludge Management Policy.

Sources: pib.



Ministry of UD to push dense urban growth along mass transit corridors for better living experience

To effectively address the emerging urbanization challenges, the Ministry of Urban Development has come out with a multi-pronged policy framework to promote living close to mass urban transit corridors.

- The Ministry has formulated a 'National Transit Oriented Development Policy' which will be discussed with the States and Union Territories.

Key facts:

This new initiative seeks to promote 'Transit Oriented Development (TOD)' which enables people to live within walking or cycling distance from transit corridors like the Metros, Monorail and Bus Rapid Transit (BRT) corridors, currently being taken up on a large scale.

- This policy seeks to enhance the depth of understanding of States and UTs on TOD as a viable solution to many of the challenges like haphazard urban growth and sprawl, mobility, rapidly rising private vehicles on roads, pollution, housing choices etc.
- This new urban design and planning in the form of TOD, is being incentivised by the Ministry under two more initiatives viz., Metro Policy and Green Urban Mobility Scheme which also will be discussed with States and UTS for taking them on board.

About ToD:

TOD Policy also aims at inclusive development by ensuring mixed neighbourhood development in the form of a range of housing choices including affordable housing and ensuring spaces for street vendors.

- States and UTs will be required to incorporate TOD in the Master Plans and Development Plans of cities besides identifying 'Influence Zones' from transit corridors for tapping revenue streams.
- Under TOD, city densification will be promoted along mass transit corridors through vertical construction by substantially enhancing FARs (Floor Area Ratio) backed by promotion of Non-motorised Transport Infrastructure for walking and cycling to transport stations, development of street networks in the influence zone of transit corridors, multi-modal integration, effective first and last mile connectivity through feeder services to enable people access public transit in 5 to 10 minutes from home and work places.
- Dense living along transit corridors besides resulting in enhanced living and travel experience, will also improve ridership of mass transit systems. If properly executed, TOD could emerge as a means of financing mass transit project, for which the demand is growing.
- TOD promotes integration of land use planning with transportation and infrastructure development to avoid long distance travel in cities through compact development as against the present pattern of unplanned and haphazard urban growth.

Sources: pib.

Paper 2 Topic: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources, issues relating to poverty and hunger.

Cabinet approves Introduction of The Indian Institutes of Information Technology (Amendment) Bill, 2017 in Parliament

The Union Cabinet has given its approval for introduction of The Indian Institutes of Information Technology (Amendment) Bill, 2017 in Parliament.

**Key facts:**

- The amendment Bill provides for inclusion of Indian Institute of Information Technology Design and Manufacturing (IIITDM), Kurnool along with the other IITs in the Principal Act.
- Subsequently, IIITDM Kurnool will be declared as an institute of National Importance with the power to award degrees to students
- The expenditure for the operationalization of IIITDM Kurnool is incurred from the Plan funds of the Ministry of Human Resource Development.
- The emerging needs of the industry and the economy, as a whole for skilled technical manpower is expected to be met from the talent pool of trained personnel of the Institute.
- The Institute shall be open to all persons irrespective of gender, caste, creed, disability, domicile, ethnicity, social or economic background.

Background:

The Indian Institutes of Information Technology Act, 2014 confers the status of Institutions of National Importance on the IITs and also provides for matters connected with administering these IITs. Subsequently, the Government has approved creation of a new NIT at Kurnool in Andhra Pradesh as embodied in the Andhra Pradesh Reorganization Act, 2014. Due to addition of a new IIT, amendment has to be made in the IIT Act, 2014. With this, IIITDM. Kurnool will be the fifth Member as a Centrally Funded IIT.

Sources: pib.

Health Ministry Notifies Medical Devices Rules, 2017

The Ministry of Health and Family Welfare has notified Medical Devices Rules, 2017. The new Rules have been framed in conformity with Global Harmonisation Task Force (GHTF) framework and conform to best international practices.

- The new Rules seek to remove regulatory bottlenecks to make in India, facilitate ease of doing business while ensuring availability of better medical devices for patient care and safety.

Background:

Only 15 categories of medical devices are, at present, regulated as drugs and to that extent, the current regulatory practices in India were not fully geared to meet the requirements of medical devices sector in the country.

New rules include:

- Medical devices will, under the new Rules, be classified as per GHTF practice, based on associated risks, into Class A (low risk), Class B (low moderate risk), Class C (moderate high risk) and Class D (high risk).
- The manufacturers of medical devices will be required to meet risk proportionate regulatory requirements that have been specified in the Rules and are based on best international practices.
- With a view to bring in the highest degree of professionalism in regulation of medical devices, a system of 'Third Party Conformity Assessment and Certification' through Notified Bodies is envisaged. The Notified Bodies will be accredited by the National Accreditation Board for Certification Bodies (NABCB).
- The NABCB will, before accrediting Notified Bodies, assess their competence in terms of required human resources and other requirements. These Bodies will undertake verification and assessment of Quality Management System of Medical Device Manufacturers of Class A and Class B category and may, on as required basis, be called upon to render assistance for regulation of Class C and D medical devices also.



- The Rules also seek to evolve a culture of self-compliance by manufacturers of medical devices and, accordingly, the manufacturing licences for Class A medical devices will be granted without prior audit of manufacturing site. However, post approval audit of manufacturing site will be carried out by the Notified Bodies to check conformance with Quality Management System.
- Manufacture of Class A and Class B medical devices will be licenced by State Licensing Authorities concerned after Quality Management System audit by an accredited Notified Body. Manufacture of Class C and Class D medical devices will be regulated by the Central Licensing Authority and, where required, assistance of experts or notified bodies will be taken.
- Import of all medical devices will continue to be regulated by CDSCO.
- A network of NABL accredited laboratories will be set up both, by the Government and by other entities, for testing medical devices.
- Separate provisions for regulation of Clinical Investigation (clinical trials) of investigational medical devices (i.e. new devices) have also been made at par with international practices and, like clinical trials, these will be regulated by CDSCO.
- Conduct of clinical investigations will, while following the international practices, be conducted in a manner that ensures realization of the twin objectives of patient safety and welfare and discovery of new medical devices.
- Medical management and compensation will be provided to the subjects of clinical investigation in accordance with the predefined and objective criteria laid down by the Government.

Significance of the new rules:

- The Rules will provide a conducive environment for fostering India specific innovation and improving accessibility and affordability of medical devices across the globe by leveraging comparative cost advantage of manufacturing in India.
- The objective, transparent and predictable regulatory framework will boost the confidence of investors and, as a consequence, the quality and range of products and services will improve and business burdens will be reduced.
- The new Rules will help in developing a quality standardization framework in India at par with international standards.
- The implementation of these Rules will provide the assurance of the best quality, safety and performance of medical devices.
- These Rules coupled with other measures, taken by the Government in the recent past, are expected to sharpen the competitive edge and provide incentives to firms to become more efficient, innovative, and competitive.
- All this will support entrepreneurship, market entry and economic growth that, in turn, would produce high-paying, high-quality jobs.

Sources: pib.

Single vaccine for dual protection against measles and rubella

The Ministry of Health and Family Welfare recently launched Measles Rubella (MR) vaccination campaign in the country.

Key facts:

- The campaign against these two diseases will start from five States/UTs (Karnataka, Tamil Nadu, Puducherry, Goa and Lakshadweep) covering nearly 3.6 crore target children.
- Following the campaign, Measles-Rubella vaccine will be introduced in routine immunization, replacing the currently given two doses of measles vaccine, at 9-12 months and 16-24 months of age.

**About MR campaign:**

The MR campaign targets around 41 crore children across the country, the largest ever in any campaign.

- All children aged between 9 months and less than 15 years will be given a single shot of Measles-Rubella (MR) vaccination irrespective of their previous measles/rubella vaccination status or measles/rubella disease status.
- MR vaccine will be provided free-of-cost across the states from session sites at schools as well as health facilities and outreach session sites.
- Measles vaccine is currently provided under Universal Immunization Programme (UIP). However, rubella vaccine will be a new addition. After the completion of the campaign, MR vaccine will be introduced in routine immunization and will replace measles vaccine, given at 9-12 months and 16-24 months of age of child.

About Measles and Rubella:

Measles is a deadly disease and one of the important causes of death in children. It is highly contagious and spreads through coughing and sneezing of an infected person. Measles can make a child vulnerable to life threatening complications such as pneumonia, diarrhoea and brain infection. Globally, in 2015, measles killed an estimated 1,34,200 children—mostly under-5 years. In India, it killed an estimated 49,200 children.

Rubella is generally a mild infection, but has serious consequences if infection occurs in pregnant women, causing congenital rubella syndrome (CRS), which is a cause of public health concern. CRS is characterized by congenital anomalies in the foetus and newborns affecting the eyes (glaucoma, cataract), ears (hearing loss), brain (microcephaly, mental retardation) and heart defects, causing a huge socio-economic burden on the families in particular and society in general.

Sources: pib.

Single-dose Zika vaccine works in animals: Study

A new Zika vaccine candidate has potential to protect against the virus with a single dose and is the first to show long-lasting protection in animals without the use of a live virus, a new study has claimed.

Key facts:

- Traditional viral vaccines contain a weakened or killed version of the virus or isolated viral proteins. By contrast, the new Zika candidate vaccine uses tiny strands of RNA that hold the genetic codes for making viral proteins.
- These RNA molecules are modified versions of the so-called messenger RNAs (mRNAs) that normally carry information from genes and serve as blueprints for the making of proteins within cells.
- In this case, the mRNAs – produced and purified in a laboratory or biotech production facility – are delivered like a normal vaccine in an injection.
- Injected mRNAs normally would be cleared from the body within minutes by a patient's immune system, but these mRNAs are modified so that they are ignored by the immune system and can easily enter cells.
- Once inside cells, they are taken up by cellular protein-making machinery and induce the production, over weeks, of the viral proteins they encode.

About Live virus vaccines:

Live virus vaccines – using slow-replicating versions of the virus they are meant to protect against – tend to induce much more powerful immune protection compared to vaccines that are based on non-replicating versions of a virus or isolated viral proteins.



Live virus vaccines have serious potential drawbacks, though, including harmful infection with the virus in people who have weakened immune systems.

About Zika:

Zika is a viral disease transmitted through the bite of an infected Aedes mosquito. This is the same mosquito that is known to transmit infections like dengue and chikungunya.

- It is said that Zika infection during pregnancy can cause a serious birth defect called microcephaly that is a sign of incomplete brain development.
- Only one in five people with Zika develop symptoms, which include rash, fever, muscle aches and headaches.

[Click here for Infographic on Zika](#)

Sources: the hindu.

National Deworming Day

India observed its third National Deworming Day on February 10th. It is the world's largest deworming programme covering 340 million children under-19 years of age across 36 states/ UTs.

- The deworming programme is India's commitment to a comprehensive national response to the public health threat posed by worms.

National deworming programme:

To combat Soil Transmitted Helminths (STH) infections, government has adopted a single day strategy called NATIONAL DEWORMING DAY (NDD). The programme is being implemented through the combined efforts of Department of School Education and Literacy under Ministry of Human Resource and Development, Ministry of Women and Child Development and Ministry of Drinking Water and Sanitation.

- During NDD single dose of Albendazole is administered to children from under 1 to 19 years of age group through the platforms of schools and anganwadi centers. Albendazole is an extremely safe drug that has been used for decades by millions of people around the world and in India, with no or minimal side effects. Side effects such as nausea and vomiting can manifest in the children with high worm load.

Background:

India carries the highest burden of worm infestation and 64% of Indian population less than 14 years of age are at risk of Soil Transmitted Helminths (STH) or worms' infestation (WHO). Soil Transmitted Helminths (STH) interfere with nutrients uptake in children; can lead to anaemia, malnourishment and impaired mental and physical development. The situation of undernutrition and anaemia which is linked to STH ranges from 40% to 70% in different population groups across the country (WHO). They also pose a serious threat to children's education and productivity later in life.

Sources: pib.



Ninth Phase of Science Express

Science Express Climate Action Special (SECAS II) is all set to be flagged off on February 17 from Safdarjung Railway station in Delhi.

Key facts:

- The SECAS II is a unique collaborative initiative of Department of Science & Technology (DST), Ministry of Environment, Forest & Climate Change (MoEFCC), Department of Biotechnology (DBT), Ministry of Railways and Vikram A Sarabhai Community Science Centre (VASCSC).
- The SECAS II will run from February 17 to September 8 2017, culminating its journey at Gandhinagar.
- During its journey, the Science Express will cover over 19, 000 km, and will be exhibited at 68 stations across 20 states of the country. During this seven month journey, SECAS will roll into Tripura for the first time.

About Science Express:

Science Express, redesigned as SECAS, intends to contribute towards increasing understanding of the science of climate change, the observed and anticipated impacts, and different possible responses.

- It is an innovative mobile science exhibition mounted on a 16 coach AC train, which has been custom-built for Department of Science & Technology (DST) by Indian Railways.
- This unique mobile exhibition was first launched in October 2007 by DST. Since then it has travelled across India eight times, traveling about 1, 42, 000 km and exhibiting at 455 locations. More than 1.50 crore people visited the exhibition over 1, 602 exhibition days.
- Science Express has become the largest, the longest running and the most visited mobile science exhibition. It has six entries in the Limca Book of Records.
- The exhibition will convey a message about Climate Change and will also be a good opportunity to generate a dialogue and discussion. The state-of-the-art exhibition on board the SECAS aims to create awareness among various sections of society, as to how climate change can be combated through mitigation and adaptation.

Sources: pib.

FSSAI constitutes panel to identify nutritional gaps

The Food Safety and Standards Authority of India (FSSAI), which is addressing the nutritional gap in the population through fortification of various foods, has constituted a Scientific Panel on “Food Fortification and Nutrition” to take the program further.

Key facts:

- The Panel will identify critical nutritional gaps in the Indian diet in general as well as in specific target groups based on diet surveys and credible scientific evidence.
- It will define strategies to address nutritional needs of the general population and vulnerable groups, and review the standards for all suitable food fortifying vehicles, in addition to the healthy dietary intake of Fat, Sugar & Salt.
- It will also address regulatory and related technological issues, review proposals from industry using modern risk assessment methods, and prescribe standard sampling and test methods for effective monitoring, surveillance and enforcement of the relevant regulations.

Background:

Micronutrient Malnutrition Disorders are ubiquitously prevalent in all age groups of the population. According to National Family Health Survey (2006-07) and the World Bank (2006), about 70% preschool children suffer from iron



deficiency anaemia and 57% preschool children have sub-clinical Vitamin A deficiency respectively. Further, as per the World Bank (2006), Iodine deficiency is endemic in 85 per cent of districts. Moreover, folate deficiency which leads to Neural Tube Defects (NTDS) are the most common congenital malformation in Indian context with an incidence that varies between 0.5-8/1000 births. It is estimated that 50-70% of these birth defects are preventable.

Food Fortification Logo: FSSAI has also unveiled a Logo for fortified foods which may be used by food businesses. This logo comprises of a square encompassing an F with a '+' sign with a ring around it which signifies the addition of extra nutrition and vitamins to daily meals to provide good health, protection and an active life. Several food businesses have already started using this logo.

What is food fortification?

Food fortification or enrichment is the process of adding micronutrients (essential trace elements and vitamins) to food. Food fortification is a proven and effective strategy to meet the nutritional needs of a large number of people across various sections of the society, including the poor and underprivileged as well as the vulnerable, such as pregnant women and young children.

- Fortification requires neither changes in existing food patterns, habits nor individual compliance. It is socio-culturally acceptable and does not alter the characteristics of the food. It can be introduced quickly and can produce nutritional benefits for populations in a short period of time. It is safe and cost effective, especially if advantage is taken of the existing technology and delivery platforms.
- Food fortification reinforces and supports existing nutrition improvement programmes and is part of a broader, integrated approach to prevent micronutrient deficiencies, thereby complementing other approaches to improve health and nutrition.

FORTIFYING FOODS TO PREVENT DISEASE

Proper nutrition and a balanced diet are key to children's well-being, keeping them healthy and supporting cognitive development. A diet without nutrients like iron or folic acid can have serious effects. But in the developing world, the correct nutrients aren't always in children's diets. Adding those nutrients to the available food—even to foods in which they don't occur naturally—can be a huge boost to public health. It's a lesson we learned in the United States long ago, and one we need to apply to the rest of the world.

Nutritional Facts

According to the Copenhagen Consensus, it would cost only \$347 million to provide 80 percent of the developing world with micronutrients in the form of iodized salt, vitamin A, and iron-fortified flour. That fortification would prevent deaths, increase economic output and reduce medical costs, saving the global community about \$5 billion.

A

Fortification programs around the world

A1 EGYPT—IRON AND FOLIC ACID
A new program has begun adding iron and folic acid to the local baladi bread, a common household staple. This is helping the more than 50 percent of Egyptian children under the age of 5 who are afflicted with anemia.

A2 SOUTH AFRICA—FOLIC ACID
By adding folic acid to maize meal and wheat flour, programs in South Africa have reduced neural tube defects (birth defects of the brain and spinal cord) by 30 percent.

A2 CHINA—IRON
In China, one pilot program added iron to soy sauce, causing rates of anemia to drop by 33 percent.

B

1 **2** **3**

Fortification programs already at work in the United States

A3 UNITED STATES—FLUORIDE
By adding the tooth-strengthening element to the water supply, the U.S. government drastically improved the dental health of the country, reducing cavities by 27 percent.

A3 UNITED STATES—IODINE
Iodine deficiency is a serious problem for fetal development—a lack of the element can result in physical and mental retardation. It can also cause goiter—a condition marked by an enlarged thyroid. Iodine was first added to salt in the United States in 1924, in response to a scientist's attempts to cure goiter. By iodizing table salt, the United States reduced iodine deficiencies, and the incidences of goiter plummeted.

A3 UNITED STATES—NIACIN
Pellagra—a skin disease that eventually leads to dementia—is caused by a lack of niacin, or vitamin B3. In the early 20th century, pellagra was epidemic in the South, causing thousands of deaths a year, but a program to fortify bread products with niacin reduced the prevalence of the disease to almost zero.

A COLLABORATION BETWEEN GOOD AND KISS ME I'M POLISH, IN PARTNERSHIP WITH THE BILL & MELINDA GATES FOUNDATION. SOURCES: BILL & MELINDA GATES FOUNDATION; COPENHAGEN CONSENSUS; GLOBAL ALLIANCE FOR IMPROVED NUTRITION; THE INTERNATIONAL COUNCIL FOR THE CONTROL OF IODINE DEFICIENCY DISORDERS; JOURNAL OF DENTAL RESEARCH.

**Food fortification in India:**

Food Safety and Standards Authority of India (FSSAI) has formulated a comprehensive regulation on fortification of foods namely ‘Food Safety and Standards (Fortification of Foods) Regulations, 2016’. These regulations set the standards for food fortification and encourage the production, manufacture, distribution, sale and consumption of fortified foods. The regulations also provide for specific role of FSSAI in promotion for food fortification and to make fortification mandatory. This sets the premise for the national summit on fortification of food.

Sources: pib.

Saathiya resource kit

Under its Rashtriya Kishor Swasthya Karyakram, Union health ministry has launched Saathiya resource kit that is specially designed by experts to help peer educators, especially in villages, discuss sensitive issues and answer teenage queries in their community in an informed manner.

Key facts:

- The ‘Saathiya Resource Kits’ is a nationwide programme under which 1.6 lakh boys and girls will work as peer educators to adolescents and respond to their queries on key health issues including mental and physical changes, nutrition and addiction.
- The initiative also aims to bring down the apprehensions and doubts among growing adolescents about the body related changes that they undergo during puberty.
- The resource kit comprises of an Activity Book, Bhranti-Kranti Game, a Question-Answer Book and a Peer Educator Diary.
- The Peer Educators will be trained across the country in a phased manner and the communication material is specially designed to help the Peer Educator to be recognized and respected as ‘saathiya’, a good friend for the adolescents.

About RSK:

To address and cater to the health and development needs of the country’s adolescents, Health Ministry had launched RSK in January 2014.

RSK identifies six strategic priorities for adolescents — nutrition, sexual and reproductive health (SRH), non-communicable diseases (NCDs), substance misuse, injuries and violence (including gender-based violence) and mental health.

Sources: pib.

New format for police officials recording road accidents

To address the growing number of road accident cases in the country, the road transport and highways ministry has come out with a new road accident recording format to capture the actual circumstances under which an accident had occurred.

Background:

An expert committee was constituted by Ministry of Road Transport and Highways to review the format for reporting of road accidents. The committee headed by Senior Adviser of the Transport Research Wing and consisting of experts from IIT Delhi, IIT Kharagpur, WHO, senior officers from the Police and Transport Departments of States, Ministry of Health & Family Welfare, submitted its recommendations, which have also been accepted by Ministry of Road Transport and Highways.

**Key facts:**

After a series of deliberations the committee has developed a uniform accident Recording Format to be adopted by the police in all states and UTs. The accident Recording Form has five sections designed to capture all relevant information like accident identification/location, road condition, vehicles involved and victim details.

- Section A contains accident identification details like location, vehicle type etc.
- Section B captures road conditions and features like culvert, gradient, pothole etc.
- Section C would capture details about vehicle – both motorized and non motorized, overloading etc.
- Section D would capture traffic violations by drivers and Section E would capture details about persons other than drivers involved in the accident.
- The form is simple and would be easy for the police persons at thana levels to understand and fill up. It also minimizes subjective elements.
- In addition to the above, the committee has also developed a set of corresponding annual road accident data Reporting Format consisting of 17 forms in which the states/ UTs would be required to furnish the annual road accident data to TRW of the Ministry within one month of the completion of a calendar year.

Need for new rules:

The recording of accident data is done in FIRs at police stations. These records are liable to be subjective as the police personnel fill it up according to their understanding and assign reasons for accidents as per their interpretation. There are apprehensions that due to limited technical understanding, the police persons recording the data are not able to recognize the role of road engineering defects, the nature of impacting vehicles and other such technical details that may have caused the accident. As a result, these aspects that are so vital for ensuring road safety but remain unreported or under reported.

Significance of this move:

This development is important as the data forms the basis for analyzing the cause of accidents, identifying black spots and taking corrective steps to eliminate the same. This is also the data that gets compiled by the Transport Research Wing of the Ministry in its annual publication Road Accidents in India. Over a period of time the data will reveal patterns which will provide solutions and enable action to be taken.

Sources: pib.

Health Ministry undertakes largest ever drug survey in the world for determining the quality of drugs

The National Institute of Biologicals (NIB) has submitted its survey report to the Government. This is the largest ever scientifically designed and professionally executed drug survey undertaken in the world for determining the quality of drugs.

Background:

The Ministry of Health and Family Welfare, Government of India had entrusted the work relating to carrying out a Survey of the extent of Problems of 'Spurious and Not of Standard Quality Drugs' to the NIB.

Key facts:

- The statistical design of the Drug Survey included as many as 224 Drug molecules belonging to 15 different therapeutic categories of the National List of Essential Medicines (NLEM) 2011.



- As part of this survey, 47,954 drug samples relating to 23 dosage forms were drawn from 654 districts of 36 States and Union Territories from the supply chains including retail outlets, Government sources and from eight airports and sea ports.
- All the samples were subjected to test / analysis as per pharmacopoeial requirements in the Central and State Drug Testing Laboratories that have been accredited by NABL.
- Overall, out of the 47,012 samples tested, 13 samples were found to be Spurious and 1,850 samples were found to be 'Not of Standard Quality' (NSQ). As such, the percentage of NSQ Drugs in India has been found to be 3.16% and that of Spurious drugs 0.0245%.

About NIB:

National Institute of Biologicals an autonomous Institution under the Ministry of Health & Family Welfare (MOHFW)- Government of India is a premier Scientific Organization and a Centre of Excellence to ensure quality of biologicals and vaccines in the country.

- The institute responsibly assures and reviews the quality of number of Biological products available through domestic manufacturers or imports. The operations are carried out in the state of the art Facility of the Institute and in close coordination with Government of India regulatory authorities as Office of Drug Controller of India, Indian Pharmacopeia's Commission.
- With this overall objective and to strengthen the regulations of biologicals in India, NIB, which is supported by the authorities constituted of Governing body and General body of the Institute plays a vital role.

Sources: pib.

Paper 2 Topic: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections.

Supreme Court makes legal services affordable

The Supreme Court has introduced a self-supporting scheme known as Middle Income Group Scheme for providing legal services to the middle and relatively lower income groups.

Highlights of the scheme:

- It is a self supporting scheme which provides legal services to the middle income group citizens i.e. citizens whose gross income is not exceeding Rs.60, 000 per month or Rs. 7, 50, 000 per annum.
- The scheme will enable people in the middle income group, who cannot afford expensive litigation in the Supreme Court, to avail services of the society at a nominal amount.
- If an advocate, who is appointed under the scheme, is found negligent in pursuing the case entrusted to him, he would be required to return the brief together with the fee which he may have received from the applicant under the scheme.
- A society will be created. The Chief Justice of India is the Patron-in-Chief of the society with Attorney General its ex-officio Vice President, Solicitor General its Honorary Secretary and other senior advocates of the apex court as its members.
- The society will not be responsible for the negligent conduct and the entire responsibility will be that of the advocate vis-a-vis the client. The name of the Advocate will, however, be struck off from the panel prepared under the scheme.

**How cases can be filed under the scheme?**

- A sum of Rs 500 shall be payable to the Supreme Court Middle Income Group Legal Aid Society and a stipulated fee as per the schedule attached to the scheme.
- A case will be registered under the MIG Legal Aid Scheme and forwarded to Advocate-on-Record/Arguing Counsel/Senior Counsel on the panel for their opinion.
- If Advocate-on-Record is satisfied that it is a fit case, then the society will consider that applicant is entitled to legal aid. The view expressed by Advocate-on Record will be final in determining eligibility of the applicant for obtaining the benefit under the scheme.
- The scheme provides for creating a contingent fund to meet miscellaneous expenditure in connection with the case and the applicant would also be required to deposit Rs 750 to the fund.
- If the advocate takes a view that the case is not fit one for an appeal to the Supreme Court, then the entire amount after deducting Rs 750 towards minimum service charges of the committee shall be refunded to the applicant through cheque.

Sources: the hindu.

MoU signed for welfare of Handicraft Artisans

A Memorandum of Understanding (MoU) was recently signed between the National Scheduled Castes Finance and Development Corporation NSFDC, Ministry of Social Justice and Empowerment and Development Commissioner (Handicrafts), Ministry of Textiles.

- The basic objective of the MoU is to help Scheduled Caste artisans and their families by promoting production and marketing of high value quality Handicrafts products at cluster level in the field of Handicrafts, Cane & Bamboo, Artificial jewellery, Textiles (Hand printed, Hand Embroidery), Dolls & Toys, Stone Carving, Footwear, etc.

Background:

Handicrafts Sector is the second largest economic activity after agriculture. There are around 12 lakh scheduled castes artisans in the country. Most of the Scheduled Caste Artisans are pursuing various Handicrafts such as Cane & Bamboo in Assam, Textiles (Hand printed) in Gujarat & Punjab, Metal wares in Uttar Pradesh, Dolls & Toys in Karnataka, Theatre Costumes & Puppets in Andhra Pradesh etc.

About NSFDC:

National Scheduled Castes Finance and Development Corporation (NSFDC) was set up in 1989 as a non profit company under Ministry of Social Justice and Empowerment, Government of India for financing, facilitating and mobilizing funds for the economic empowerment of persons belonging to the Scheduled Castes families living below double the Poverty Line.

- NSFDC finances income generation schemes for the target group through the State Channelising Agencies (SCAs) nominated by respective State/UT Governments.

Sources: pib.



Paper 2 Topic: Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.

Government introduces alternative funding mechanism of electoral bonds

The government has announced measures in the Budget to bring in greater transparency in funding of political parties. These include capping cash funding by a single anonymous donor to 2000 that is at a tenth of the current limit and proposing electoral bonds that are likely to reveal the identity of the donor while keeping the name of the party hidden.

- Both proposals will require amendments to existing laws. While introduction of electoral bonds will need an amendment to the RBI Act, the lowering of limit for anonymous contributions to Rs 2,000 from Rs 20,000 could necessitate an amendment to the Representation of the People Act.

Significance of this move:

The measures are expected to force parties to put out details of the bulk of their donors in public domain. A report released by the Association of Democratic Reforms last month revealed that 69% of funds of political parties in India from 2004-05 to 2014-15 came from “unknown” resources.

Electoral bonds:

It is expected that RBI will issue such bonds on behalf of the government like any other sovereign bond to which a donor may subscribe from bank branches and take certificates against it. Later, the bonds can be given to any political party, which will be able to redeem these securities at its bank account. So, the bearer's identity is unlikely to be revealed in the books of the party and the recipient party will also remain unknown.

Sources: et.

Decision on FRBM Review Panel report in due course: FM Arun Jaitley

Finance Minister Arun Jaitley has clarified that the report of the FRBM Review Panel, headed by former revenue secretary N K Sinha, will be carefully examined and appropriate decisions will be taken in due course.

Background:

A five-member committee was constituted in May 2016 following Mr. Jaitley's announcement, in Budget 2016-17, of the creation of a panel to review the Fiscal Responsibility and Budget Management Act. The government had mandated the committee to explore whether it should adopt a flexible fiscal deficit target instead of a fixed number every year. The panel recently submitted its report to the government.

Highlights of the report:

- The committee has recommended major changes in the 13-year-old Fiscal Responsibility and Budget Management (FRBM) Act and suggested ways to ensure responsible and higher growth, sources said.
- The committee says, “a new FRBM Act is critical to create better conditions for co-ordination between monetary and fiscal policy and also usher in a low interest rate regime.”
- The Committee had recommended debt-to-GDP ratio of 60% by 2023 and fiscal deficit at 3% for next three years.



- There is also a suggestion that fiscal expansion or contraction should be aligned with credit contraction or expansion respectively in the economy.

Need for review of FRBM act:

Since its introduction, the Fiscal Responsibility and Budget Management Act has been facing a rocky road in terms of implementation. Paused four times since its enactment in August 2003, including for a reset of the fiscal deficit target in 2008-09 following the global financial crisis, the FRBM Act has become a subject of animated debate.

Sources: et.

India Innovation Index

To make India an innovation-driven economy, the government has launched a mega initiative “India Innovation Index”.

What is it for?

The index will rank states on Innovations through country’s first online innovation index portal that will capture data on innovation from all Indian states on innovation and regularly update it in real time.

Key facts:

- The index was launched by NITI Aayog, Department of Industrial Policy & Promotion (DIPP) and Confederation of Indian Industry (CII).
- The India Innovation Index Framework will be structured based on the best practices followed in Global Innovation Index (GII) indicators and additionally by adding India-centric parameters those truly reflect the Indian innovation ecosystem.
- This initiative will be the point of reference for all international agencies to collect India’s up to date data points for global indices and analytic.

About GII:

The **Global Innovation Index (GII)**, co-published by **World-Intellectual Property Organization (WIPO)**, Cornell University and INSEAD with CII as a Knowledge Partner since inception, has been ranking world economies including India since 2007 according to their innovation capabilities and outcomes using 82 indicators among a host of other important parameters.

- It has established itself as both a leading reference on innovation and a ‘tool for action’ for policy makers.
- India currently ranks 66th out of 128 countries on the Global innovation Index (GII) 2016.

Sources: pib.

Cabinet approves ‘Pradhan Mantri Gramin Digital Saksharta Abhiyan’

The Union Cabinet has approved ‘Pradhan Mantri Gramin Digital Saksharta Abhiyan’ (PMGDISHA) to make 6 crore rural households digitally literate. The outlay for this project is Rs.2,351.38 crore to usher in digital literacy in rural India by March, 2019.

**Implementation of the programme:**

- Under the scheme, 25 lakh candidates will be trained in the FY 2016-17; 275 lakh in the FY 2017-18; and 300 lakh in the FY 2018-19.
- To ensure equitable geographical reach, each of the 250,000 Gram Panchayats would be expected to register an average of 200-300 candidates.
- The implementation of the Scheme would be carried out under the overall supervision of Ministry of Electronics and IT in active collaboration with States/UTs through their designated State Implementing Agencies, District e-Governance Society (DeGS), etc.

Significance of this programme:

As per the 71st NSSO Survey on Education 2014, only 6% of rural households have a computer. This highlights that more than 15 crore rural households (@ 94% of 16.85 crore households) do not have computers and a significant number of these households are likely to be digitally illiterate. The PMGDISHA being initiated under Digital India Programme would cover 6 crore households in rural areas to make them digitally literate. This would empower the citizens by providing them access to information, knowledge and skills for operating computers / digital access devices.

Sources: pib.

Arunachal Becomes First NE State to Implement e-Cabinet

Arunachal Pradesh has become the first state in the northeast to implement e-Cabinet solution for the state cabinet members.

Key facts:

- Using this system, the cabinet members can access the cabinet notes before the meeting. The entire business of the Cabinet can be conducted using the e-Cabinet solution.
- Implemented by the department of Information Technology and Communication, the solution lets Ministers prepare for cabinet meetings, conduct them and review minutes, entirely without paper.
- The e-Cabinet solution will give remote access to the Ministers to view Cabinet notes and the same will be circulated well in advance for proper analysis and feedback.
- The system is a multi-user secure solution that keeps relevant information organised and updated in real time, giving ministers a clear overview of each item under discussion.
- Once Arunachal Pradesh adopts the e-Cabinet system fully, the average length of the cabinet meetings will go down from 4-5 hours to just 30-90 minutes and the government can also eliminate the need to print and deliver thousands of pages of documents.

Sources: ie.

Centre makes Aadhaar card mandatory for receiving subsidised foodgrains from PDS shops

In a significant step to reform the Public Distribution System (PDS), the government has made Aadhar card mandatory for receiving subsidised foodgrains from all PDS shops under the National Food Security Act (NFS).

- The government has allotted time till June 30 for those not having Aadhar card to get it for availing subsidised foodgrain under the Food Law.

**Background:**

An Aadhaar card is a unique number issued to every citizen in India and is a centralised and universal identification number. The Aadhar card is a biometric card that stores an individual's personal details in a government database, and is fast becoming the government's base for public welfare and citizen services.

- The government uses the Aadhar network in order to ensure that individuals who require assistance and benefits gain access to these resources directly, eliminating the need for middlemen.
- As part of this process, it is gradually linking all essential government services and benefits schemes to the Aadhaar network, creating a centralised database through which it can distribute and keep track of the various schemes and programmes it runs along with the beneficiaries. In this manner, it can also identify those who are receiving benefits but are not eligible for them and take corrective action.

About NFSA:

NFSA aims to provide subsidized food grains to approximately two thirds of India's 1.2 billion people. It extends to the whole of India. The cost of the implementation is estimated to be \$22 billion(1.25 lac crore), approximately 1.5% of GDP.

Under the provisions of this act, beneficiaries are able to purchase 5 kilograms per eligible person per month of cereals at the following prices:

- Rice at 3 Rupees per kg.
- Wheat at 2 Rupees per kg.
- Coarse grains (millet) at 1 rupee per kg.

Sources: the hindu.

Commerce ministry plans merger of commodity boards

The commerce ministry is planning merger of the commodity boards and set up an umbrella organisation in order to improve production and exports of plantation crops like tea, coffee and spices.

Why?

Some of these boards were set up way back in 1940s and their merger could help in harmonising their activities and in turn, enhance the quality and boost exports. Besides, one board will provide better services.

Background:

The five commodity boards, under the ministry of commerce, are responsible for production, development and export of tea, coffee, rubber, spices and tobacco.

The Coffee Board is a statutory organisation constituted under the Coffee Act, 1942. Similarly, the Rubber Board was constituted under the Rubber Act, 1947. Tea Board was set up on 1st April, 1954 under the Tea Act, 1953. The Tobacco Board was constituted in January, 1976, while the Spices Board was formed in February, 1987.

Sources: the hindu.



Maximum Possible Marks to Indian NRA in WHO Assessment

WHO has completed the assessment of the status of the Indian vaccine regulatory system against WHO NRA Global Benchmarking Tool (GBT) for benchmarking and measured the maturity of the system.

Key facts:

- The assessment has been carried out by a WHO team comprising lead experts in different areas from WHO Headquarters Geneva, WHO India Country Office, experts drawn from the regulators of USA, Italy, Germany, Netherlands, Indonesia, Thailand and Egypt.
- The assessment has been done in respect of nine different functionalities and Indian National Regulatory Authority (NRA) has been declared 'functional' with a maturity level of 4 i.e. the highest level as per currently evolved definitions in respect of 5 functions, and maturity level 3 in respect of 4 functions.
- While, maturity level 4 indicates good results and sustained improvement trends, maturity level 3 reflects systematic process based approach, early stage of systematic improvements, data availability regarding conformance to objectives and existence of improvement trends.

Why assessment of National Regulatory Authority (NRA) is necessary?

A fully functional NRA is a pre-requisite for WHO prequalification of vaccines. One of the requirements to become eligible and retain prequalification status is to have the National Regulatory Authority (NRA) assessed as functional against the WHO published NRA indicators.

- WHO Prequalification Programme, as such, facilitates access to vaccines that meet the unified standards of quality, safety and efficacy as well as programme needs. The vaccine manufacturers can only apply for WHO vaccine prequalification if the NRA meets the standards of the WHO NRA published indicators i.e. WHO Global benchmarking Tool on functional regulatory system for vaccines.
- The nine functions included in the tool are National Regulatory System; Registration and Marketing Authorization; Vigilance; Laboratory Access and Testing; Regulatory Inspection; Clinical Trial Oversight; NRA Lot Release; Licensing Premises; and Market Surveillance and Control. The Global Benchmarking Tool (GBT) so developed has 63 indicators and 288 sub-indicators.

Background:

National Regulatory Authority (NRA) of India comprises the Central Drugs Standard Control Organisation (CDSCO), State Drug Regulatory Authorities, Pharmacovigilance Programme of India (PvPI) and Adverse Events Following Immunization (AEFI) structures at the Central and States levels.

Sources: pib.

Amnesty faults seditious law

Amnesty International has released its State of the World's Human Rights Report for the year 2016-17. AI's annual report is a comprehensive survey of the state of human rights in 159 countries.

Highlights of the report:

- The report has expressed concerns over a range of human rights violations in India. It has slammed the use of legislation such as the Foreign Currency (Regulation) Act (FCRA) and the sedition law to silence government critics and crack down on civil society organisations.
- It noted the suspension of FCRA registration of Lawyers Collective, and government's refusal to renew the FCRA licences of 25 NGOs "without offering valid reasons", which constitute a violation of the right to freedom of association.
- The report expressed concerns over extra-judicial killings in different States, including Manipur, Chhattisgarh, Uttar Pradesh, Orissa, and Madhya Pradesh.
- The report criticised the Indian state's handling of the protests in Jammu and Kashmir (J&K).



- It pointed out that India's draft national education policy released last August "made no mention of human rights education."
- The report notes, "Human rights activists and journalists faced intimidation and attacks from both state and non-state actors in India."
- The report also noted that "Dalits and Adivasis continued to face widespread abuses".
- Besides, the report drew attention to India's amendment to the child labour law, which allows children under 14 to work in "family enterprises", and children between 14 and 18 years to work in occupations not classified as "hazardous."

About Amnesty international:

Amnesty International is a non-governmental organisation focused on human rights. The stated objective of the organisation is "to conduct research and generate action to prevent and end grave abuses of human rights, and to demand justice for those whose rights have been violated."

- The organisation was awarded the 1977 Nobel Peace Prize for its "campaign against torture," and the United Nations Prize in the Field of Human Rights in 1978.
- In the field of international human rights organisations, Amnesty has the second longest history, after the International Federation for Human Rights and broadest name recognition.

Sources: the hindu.

BharatQR

India has reached a new milestone in cashless transaction by launching BharatQR, the world's first interoperable payment acceptance solution. This is the second big ticket initiative from the Centre, after BHIM, towards pushing digital transactions.

What is QR code?

Quick Response Code (QRCode) is a two-dimensional machine-readable unique pattern that contains information on a specific task.

How does QR codes work for online payments?

In case of retail payments, QR code eliminates the need of a Point of Sale (PoS, or card swipe) machine for carrying out electronic transaction. If the merchant and the customer are using the same payment application, such as PayTM or a bank's app, then the customer can scan the merchant's QR code to make the payment.

What is BharatQR code?

BharatQR code is an interoperable payment acceptance solution. Even if the merchant and customer are on different payment platforms, BharatQR will enable payment from one to the other. This means that merchants need to display only one QR code instead of multiple ones for different payment platforms. It has been jointly developed by the National Payments Corporation of India (NPCI), Mastercard, and Visa, BharatQR code would require.

Need for BharatQR:

The main reason for this is, it is ideal for small roadside merchants who find it tough to invest in point-of-sale terminals for card payments. For them, BharatQR is an asset-light and cheap payment solution. There is no need to invest on a terminal hardware, the merchant just needs a smartphone and a QR code printed sticker to accept digital payments.

Sources: the hindu.



15 lakh youth to get online and experiential learning on Entrepreneurship Education

The Ministry of Skill Development and Entrepreneurship (SDE) and Wadhwani Operating Foundation (WOF) have signed two Agreements for effectuating an earlier understanding of jointly developing and implementing Entrepreneurship and Skill Development initiatives in the country with the Pradhan Mantri YUVA Scheme being the first joint effort in this regard.

- The WOF, in capacity of Knowledge Partner will contribute, free of cost, Software, Content and Intangibles such as faculty and field staff training and program consulting services under the Scheme.

About Pradhan Mantri YUVA Scheme:

Pradhan Mantri YUVA Scheme launched by the Ministry during November, 2016 aims at providing online Entrepreneurship Education to about 15 lakh students across the country through 3050 Project Institutes consisting of Institutions of Higher Learning; Schools; ITIs and Entrepreneurship Development Centres, both Government and Private.

- The online Entrepreneurship Modules will be duly supplemented by the class room based experiential learning activities and practicums which will be facilitated by specially trained Faculty of the educational institutions.
- The Ministry would also provide financial assistance to these institutions for different activities under the Scheme. The total scheme outlay is Rs.450 crores.
- The five-year Scheme is expected to witness setting up of more than 23,000 enterprises thus resulting into creation of more than 2.30 lakh direct and indirect jobs in the country.
- The Scheme also envisages delivery of specially developed Social Entrepreneurship Modules to interested students in Institutions of Higher Learning.

Sources: pib.

SEBI to tighten algo trading rules

The Securities and Exchange Board of India (SEBI) plans to further tighten the regulations for algorithmic trading to minimise instances of misuse of such systems that can be used to execute complex trading strategies at a very high speed.

What is algorithmic trading?

Algorithmic trading refers to the use of software programmes to execute trading strategies at a much faster pace. On the National Stock Exchange (NSE), algo trades accounted for close to 16% of all trades. On the BSE, it was 8.56% in January.

Need for strengthening of rules:

India was one of the few countries in the world to regulate algorithmic trading — popularly called algo trading. SEBI is looking to further strengthen the norms so that instances of flash crashes that have happened overseas, and also in India a few times, could be minimised.

Background:

While many countries and regulators, including the International Organization of Securities Commissions (IOSCO), have been debating on this issue for many years, only India had been able to come out with proper regulations.

Sources: the hindu.



Paper 2 Topic: India and its neighbourhood- relations.

India's Cold Start doctrine can't ensure easy win against Pak: Chinese media

State-run Chinese media has observed that Indian Army's "Cold Start" doctrine to seize control of Pakistani territory might be intimidating but will not lead to a "landslide" victory against nuclear-armed Pakistan.

What has been said?

Both India and Pakistan are nuclear-armed countries. Even if the Cold Start strategy sounds intimidating and there is indeed a gap between the two powers' military might, it does not mean that New Delhi can easily win a landslide victory against Islamabad. The truth is, Pakistan has considerable strength to safeguard its sovereignty and its nuclear weapons should not be ignored.

Given the uncertainties of US' future policy toward South Asia, the India-Pakistan peace process, which is already frozen, is now in a "critically fragile state".

What is Cold Start Doctrine?

Cold Start is a military doctrine developed by the Indian Armed Forces to put to use in case of a war with Pakistan.

- The main objective of the Cold Start Doctrine is to launch a retaliatory conventional strike against Pakistan inflicting significant harm on the Pakistan Army before any international community could intercede, but not in way Pakistan would be provoked to make a nuclear attack.
- Cold Start Doctrine deviated from India's defence strategy since 1947 – "a non-aggressive, non-provocative defense policy," – and will involve limited, rapid armoured thrusts, with infantry and necessary air support.
- Cold Start Doctrine was developed as the limitations of the earlier doctrine – Sundarji Doctrine – was exposed after the attack on the Indian Parliament.
- According to the Cold Start Doctrine, battle Groups will be well forward from existing garrisons. India's elite strike forces will no longer sit idle waiting for the opportune moment, giving Pakistan the luxury of time.

Sources: et.

Govt. junks border wall plan

The Centre has given up its proposal to build a wall along the Pakistan border in Jammu, originally envisaged as a barrier to cross-border terror.

About the proposed wall:

The proposed embankment would have been about 135 feet (41 metres) wide and 10 metres high, and would have accommodated bunkers and border outposts.

The raised embankment, initiated by the UPA government in 2013 after the twin attacks in the Hiranagar/Samba sector, was to come up along 179 km of the International Border in Jammu.

Opposition to the construction of wall:

- The wall proposal was opposed by Pakistan, which shot off letters to the United Nations Security Council in 2015 accusing India of converting what it called a "working boundary" into a "quasi international boundary."
- The Indian Army too opposed the embankment, saying it would pose hurdles for their forward movement during military operations.



- Also, unlike the Line of Control, the International Border is densely populated and has fertile agrarian land. Not many people were willing to let go of their land.

What next?

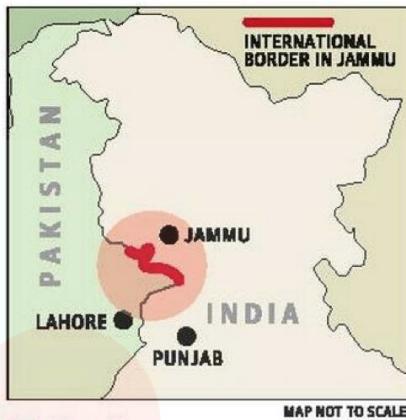
The government plans to depend on 'technological solutions' such as a 'smart fence', a seamless virtual fence with sensors to identify any infiltration. The Home Ministry is also working on a Comprehensive Integrated Border Management System (CIBMS) for 24X7 surveillance.

Background:

India shares 3323 Km (including Line of Control (LoC) in Jammu & Kashmir sector) of its land border with Pakistan. This border runs along the States of Gujarat, Rajasthan, Punjab and Jammu & Kashmir. The Indo-Pakistan border has varied terrain and distinct geographical features. This border is characterized by attempts at infiltration by terrorists and smuggling of arms, ammunition and contraband, the Line of Control being the most active and live portion of the border.

A ringside view

The proposed wall along the International Border in Jammu was to thwart cross-border terrorism



International border

- The International Border (IB) separates India and Pakistan, according to the Radcliffe Commission recommendations
- It starts from Pillar No. 1175 in the Rann of Kutch, Gujarat, and ends near Akhnoor, J&K
- In Jammu, the wall was coming up on 179 km of the 210 km-long IB

What next

- The Home Ministry is planning a 'smart fence' along the IB, a seamless virtual fence with sensors and laser technologies

Sources: the hindu.

India, Bangladesh sign MoU for development of Sylhet

India has signed MoU with Bangladesh for the sustainable development of Sylhet, a north-eastern Bangladeshi city.

Key facts:

- Under the Memorandum of Understanding (MoU), three development projects would be taken up in Sylhet.
- Under the project in Sylhet, the Indian government will provide financial aid for the construction of a five-storey Kinder Garten and High School Building, a six-storey cleaner colony building; and for some development work in Dhupa Dighirpar area at a total cost of around Taka 240 million.

Background:

Sylhet is an ancient city and a historically vibrant city. It had been a part of the former Assam province of India. It has been a focal point for 1971 Liberation War.

Sources: et.



Paper 2 Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Dubai launches programme to promote trade with India

In a bid to promote bilateral trade relations with India, Dubai's Department of Economic Development has launched a programme that allows commercial disputes to be resolved quickly at minimal costs.

Key facts:

- Dubai Exports, the economic development departments promotion agency, launched the initiative Buyer Protection Programme, designed by the Commercial Compliance and Consumer Protection (CCCP), as a pilot project through its Overseas Trade Office in India.
- The programme allows commercial disputes to be resolved quickly and at minimal costs. Traders in India can now approach the Dubai Exports representative office in their country to submit complaints following which CCCP will start working towards an amicable settlement.
- There would be a focus on identifying potential sectors and the impeding tariff and non-tariff barriers, exploring opportunities in services sector and formulating a sector-specific strategy to boost two way trade and investments.

Background:

Currently, imports from India to Dubai account for 60% of the total trade value while exports from the emirate are 12% and the rest is re-exports. The largest export from Dubai to India is gold, which accounts half the value, followed by copper wires, base metals and polymers.

Sources: et.

India and Italy Sign an MOU for Technical Cooperation in Rail Sector Especially on Safety Related Subjects

Ministry of Railways and Ferrovie dello Stato Italiane Group (FS Group) a Government Company of Italy managing the Italian railway sector have signed an MoU for technical cooperation in rail sector especially in the areas safety in train operations.

- The cooperation areas identified in this MoU includes safety audit of Indian Railways and measures required for enhancing safety in train operation, Assessment and certification of advanced technology based safety products and systems to Safety Integrity Level (SIL4), Training and competency development with focus of safety, Modern trends in Maintenance and diagnostic etc.

Background:

The MoU comes in the backdrop of emphasis given by Shri Suresh Prabhakar Prabhu Minister of Railways, Govt. of India on safety in railway operation. He has directed Railway Board to collaborate with the international experts on this subject and identify the best practices in this field.

About FS Group:

Ferrovie dello Stato Italiane Group (FS Group) is a fully owned company of the Italian Government working in the Railway Sector and is under Ministry of Treasure, Italy.



- The Group, with its technical and managerial railway expertise, widely recognized at international level, is one of the most advanced worldwide player in many field, such as design and realization of High Speed and Conventional Lines, Safety Systems, Certification, Training and Operation and Maintenance.
- The whole group currently employs about 69,000 persons and operates more than 7,000 trains per day, carrying over 600 million/year of passengers and 50 million tons of freight on a railway network of more than 16,700 km.
- FS Italiane Group, through its controlled companies, has been working in 5 continents, in more than 60 countries.

Sources: pib.

MoU between MHRD and Focus States for TEQIP-III

The Union HRD Ministry has signed MoU for Technical Education Quality Improvement Programme (Phase- III) with 18 States and 1 UT.

Key facts:

- The Focus States under the MoU are 7 Low Income States (Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan and Uttar Pradesh), 3 Hill States (Himachal Pradesh, Jammu & Kashmir and Uttarakhand), 8 North-Eastern States (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) and Union Territory of Andaman and Nicobar Islands.
- The project will be implemented as Central Sector Scheme with the facility of Direct Funds Transfer to the accounts of beneficiary institutes. The project will be initiated in April 2017 and will be coterminous with Fourteenth Finance Commission (FFC) i.e. 2019-20.
- The programme is implemented in assistance with World Bank in a sustainable way to improve over all standard and quality of technical institutes.

Background:

TEQUIP I and TEQUIP II had a positive impact on the infrastructure and educational standards in the technical institutions where they were taken up. Institutions in the central, eastern and north-eastern region and hill States are at present in need of similar and specific interventions. The initiation and implementation of the project TEQIP-III arises from the need to bridge this gap.

About TEQIP:

The Technical Education Quality Improvement Programme (TEQIP) commenced in 2003 with World Bank assistance as a long term programme to be implemented in 3 phases.

- The first phase of Technical Education Quality Improvement Programme (TEQIP) commenced in 2003 and ended on March 31st, 2009. TEQIP-II commenced in August 2010 and is scheduled to conclude in March 2017.
- The project will cover all Government / Government aided engineering institutes, affiliating technical universities (ATUs) and CFTIs from Focus States/UT.

Objectives of the programme:

- Better academic standards, through accreditation, filling up faculty positions, training faculty in better teaching methods, improved research outputs in institution in Focus States/UTs
- Better administration of the institutions with improved financial/academic autonomy,
- Better systems for assessment of Student Learning, higher transition rates



- Transparent and expeditious release of funds to institutes by way of Direct Funds Transfer (DFT) System.

Sources: pib.

Consultation to discuss issues related to India's accession to Hague Convention

The Ministry of Women and Child Development recently held a National Consultation to discuss issues related to India's accession to Hague Convention on the Civil Aspects of International Child Abduction, in New Delhi.

- The consultation was attended by judges of various high courts and members of law commission.
- Based on the discussions and guidance given by the Hon'ble Judges, it was decided that the Chandigarh Judicial Academy Chandigarh along with NRI Commission of Punjab will examine in detail the legal issues involved by taking all viewpoints into account including those of suffering women.
- They will give recommendations as to how the problems of parents and children involved in such situations can be addressed. They will also study the draft Protection of Children (Inter-Country Removal and Retention) Bill, 2016.
- It was also decided that if a model legislation is required to safeguard the interests of parents and children, the same will be drafted. It was decided that this exercise will be completed in four months.

Background:

Currently, there is no specific Indian legislation addressing issues related to abduction of children from and into India. However, Law Commission of India had submitted the 218th Report titled "Need to accede to the Hague Convention on the Civil Aspects of International Child Abduction 1980" on 30th March, 2009. In view of this report, before acceding to the Convention, the Ministry of Women and Child Development prepared a draft Bill titled "The Civil Aspects of International Child Abduction Bill, 2016". The draft Bill was placed on the Ministry's website for comments and suggestions from various stakeholders.

The Law Commission of India has recently suggested some modifications in the Bill and re-named it as the "The Protection of Children (Inter-country Removal and Retention) Bill, 2016".

About Hague convention:

Hague Convention is a multilateral treaty which came into existence on 1st December, 1983. The convention seeks to protect children from the harmful effects of abduction and retention across international boundaries by providing a procedure to bring about their prompt return.

- The convention is intended to enhance the international recognition of rights of custody and access arising in place of habitual residence, and to ensure prompt return of the child who is wrongfully removed or retained from the place of habitual residence.
- It seeks to return children abducted or retained overseas by a parent to their country of habitual residence for the courts of that country to decide on matters of residence and contact.
- The convention shall apply to any child, up to the age of 16 years who is a habitual resident of any of the contracting states.

Sources: pib.



India to host key RCEP meeting at Hyderabad in July

India in July would host the negotiations for mega trade deal RCEP which aims at liberalising norms for trade in goods and services and boost investment among 16-member countries.

- Hyderabad has been chosen to host the meeting.

About RCEP:

RCEP is the proposed mega-regional Free Trade Agreement (FTA) between 16 Asia-Pacific countries including India, China, Japan, South Korea, Australia, New Zealand and the 10-member ASEAN bloc.

- The RCEP seeks to achieve a modern and comprehensive trade agreement among members.
- The core of the negotiating agenda would cover trade in goods and services, investment, economic and technical cooperation and dispute settlement.
- The partnership would be a powerful vehicle to support the spread of global production networks and reduce the inefficiencies of multiple Asian trade agreements that exist presently.

Sources: the hindu.

UN seeks India's nominee for anti-terror panel

India has been asked to send the name of its nominee for inclusion in a global team to assist a United Nations committee which decides on banning terror outfits and their leaders.

- Following the request from the global body, both the Home and Finance ministries have been asked to recommend names of suitable individuals who can be part of the key team.

Key facts:

- The nominations have been sought from qualified individuals to serve on the 'Analytical Support and Sanctions Monitoring Team' in support of the important '1267/1989/2253 ISIL (Da'esh) and Al-Qaeda Sanctions Committee'.
- Those interested should be experts on ISIL (Da'esh), Al-Qaeda and affiliated individuals and entities, their evolution, linkages and changing nature of the threat. They should have "willingness to travel extensively, including in difficult environments".
- The position requires a high level of personal commitment to the monitoring team's mandate and to the United Nations.
- The final selection of the team is made by the UN secretariat based on assessment of the individual qualifications of the candidate.
- The monitoring team works in tandem with the UN Secretariat to standardise the format of all United Nations sanctions lists and also assists the Committee in regularly reviewing names on it.

Significance of this move:

The presence of the country's nominee on the panel may facilitate the government's efforts to get Maulana Masood Azhar, head of Pakistan-based terrorist group Jaish-e-Mohammed (JeM) and mastermind of last year's Pathankot air base attack.

**Background:**

India's effort to get JeM chief listed in the UN's sanctions list of organisations and individuals linked to Al-Qaeda and ISIS has been repeatedly blocked by China. Azhar's JeM, which is said to have links with Taliban and Al-Qaeda, has been blacklisted by the UNSC.

Sources: the hindu.

India to pitch global services accord to WTO chief Azevedo

India is all set to make a presentation to World Trade Organisation (WTO) Director General Roberto Azevedo and India Inc. on New Delhi's proposal for a global pact to boost services trade.

What is TFS Agreement all about?

The proposed Trade Facilitation in Services (TFS) Agreement at the WTO-level aims to ease norms including those relating to movement of foreign skilled workers/professionals across borders for short-term work.

- Among the objectives of the proposed pact, is ensuring portability of social security contributions, as well as making sure fees or charges for immigration or visas are reasonable, transparent, and non-restrictive (or impairing the supply of services) in nature.
- It also aims to pave the way for a single window mechanism for foreign investment approvals.
- The proposed TFS pact is also about 'facilitation' – that is making market access 'effective' and commercially meaningful and not about 'new' (or greater) market access.

Sources: the hindu.

With MTCR done, India to test extended range Brahmos

India is planning to test a new version of the Brahmos cruise missile on March 10, with New Delhi's entry into the Missile Technology Control Regime (MTCR) removing previous barriers that capped the range of the joint project with Russia.

- The extended range version of the missile, aiming to reach 450 km, will be an improvement over the current range of 290 km.

Background:

The technology upgrade comes after India's full membership into the Missile Technology Control Regime (MTCR), which removed caps on range of India's BrahMos missile, which it jointly developed with Russia.

About MTCR:

Established in April 1987, the voluntary MTCR aims to limit the spread of ballistic missiles and other unmanned delivery systems that could be used for chemical, biological, and nuclear attacks.

- The MTCR regime urges its members, which include most of the world's key missile manufacturers, to restrict their exports of missiles and related technologies capable of carrying a 500-kilogram payload at least 300 kilometers or delivering any type of weapon of mass destruction.

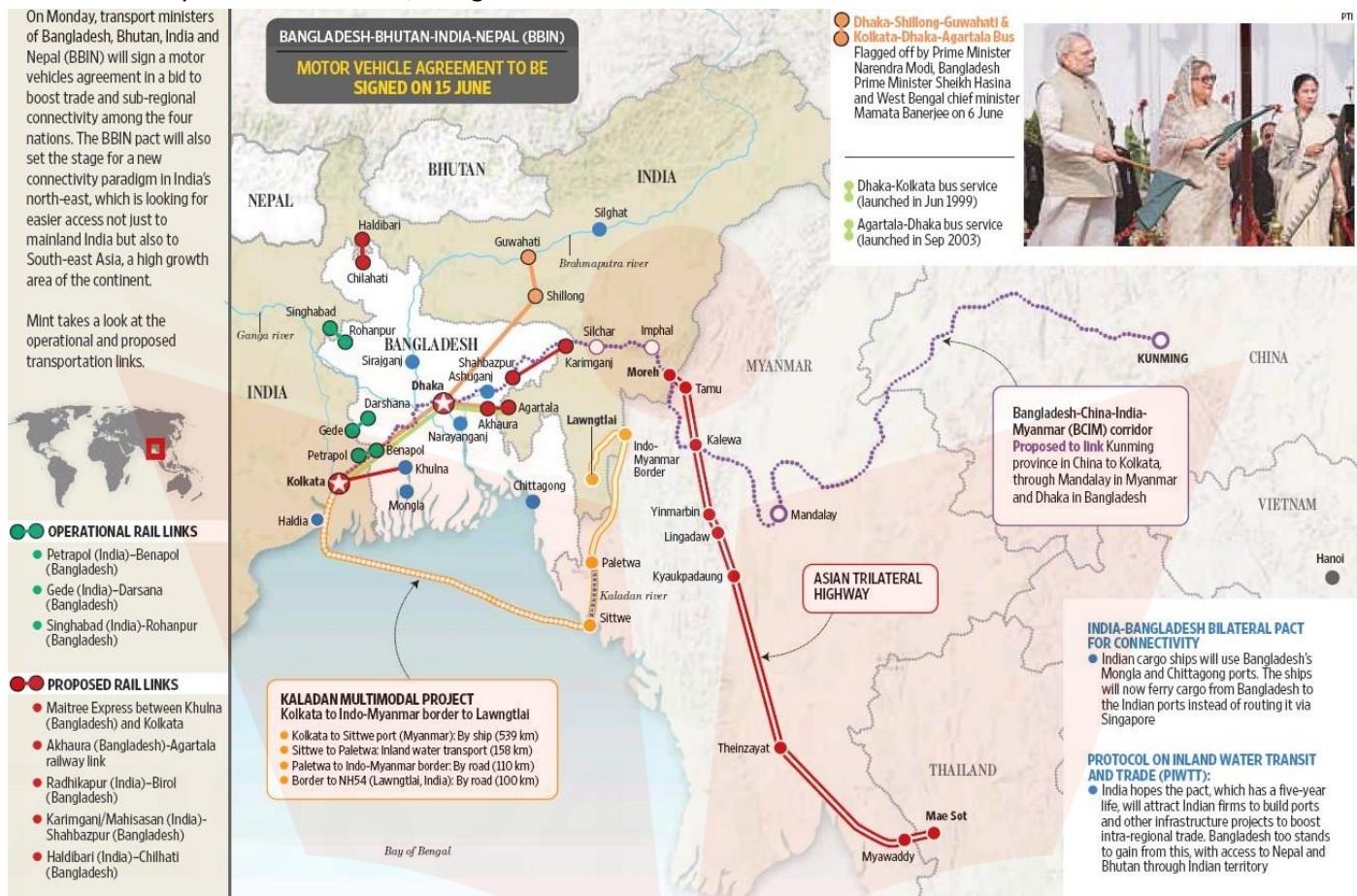
Sources: the hindu.

India hopes for Bhutan's ratification of BBIN soon

Ahead of the implementation of Bangladesh, Bhutan, India, Nepal Motor Vehicles Agreement (BBIN MVA), India remains hopeful that Bhutan would ratify the accord soon.

Background:

The four South Asian nations have already signed the BBIN Agreement in June 2016 in Thimphu and the accord was seen as a significant symbol of sub-regional unity. Despite ratifications by three partner countries, Bhutan's Upper House has not yet ratified the deal, citing environmental as well as livelihood concerns.



About BBIN agreement:

The agreement encapsulates the spirit of economic integration emphasised in the SAARC Charter. The main objective of the agreement is to provide seamless people-to-people contact and enhance economic interaction by facilitating cross border movement of people and goods.

- It would permit unhindered movement of passenger and cargo vehicles among the four countries. Cargo vehicles do not have to be changed at the border, a practice that has prevailed until now. As per the agreement, member countries would allow vehicles registered in the other countries to enter their territory under certain terms and conditions. Customs and tariffs will be decided by the respective countries and these would be finalised at bilateral and trilateral forums.
- Signing of the BBIN agreement will promote safe, economical efficient and environmentally sound road transport in the sub-region and will further help each country in creating an institutional mechanism for regional integration.

Sources: the hindu.

India, Rwanda sign aviation, visa deals

India and Rwanda have concluded three Memorandums of Understanding (MoU). These agreements were concluded between the two countries during Vice-President Hamid Ansari's visit to Rwanda.

Key facts:

- One MoU relates to a bilateral air services agreement enabling direct flights between the two countries. Rwandan Airways is to begin direct flights between Kigali and Mumbai in April.
- The other two MoUs pertained to the setting up of an entrepreneurial development centre in Rwanda and exemption of visa for entry of diplomatic and official passports.

Rwanda:

Rwanda, in east-central Africa, is surrounded by the Democratic Republic of the Congo, Uganda, Tanzania, and Burundi. Steep mountains and deep valleys cover most of the country. Lake Kivu in the northwest, at an altitude of 4,829 ft (1,472 m), is the highest lake in Africa. Extending north of it are the Virunga Mountains, which include the volcano Karisimbi (14,187 ft; 4,324 m), Rwanda's highest point.



Sources: the hindu.

Cabinet approves the investment proposal for generation component of Arun-3 Hydro Electric Project

The Cabinet Committee on Economic Affairs has approved:

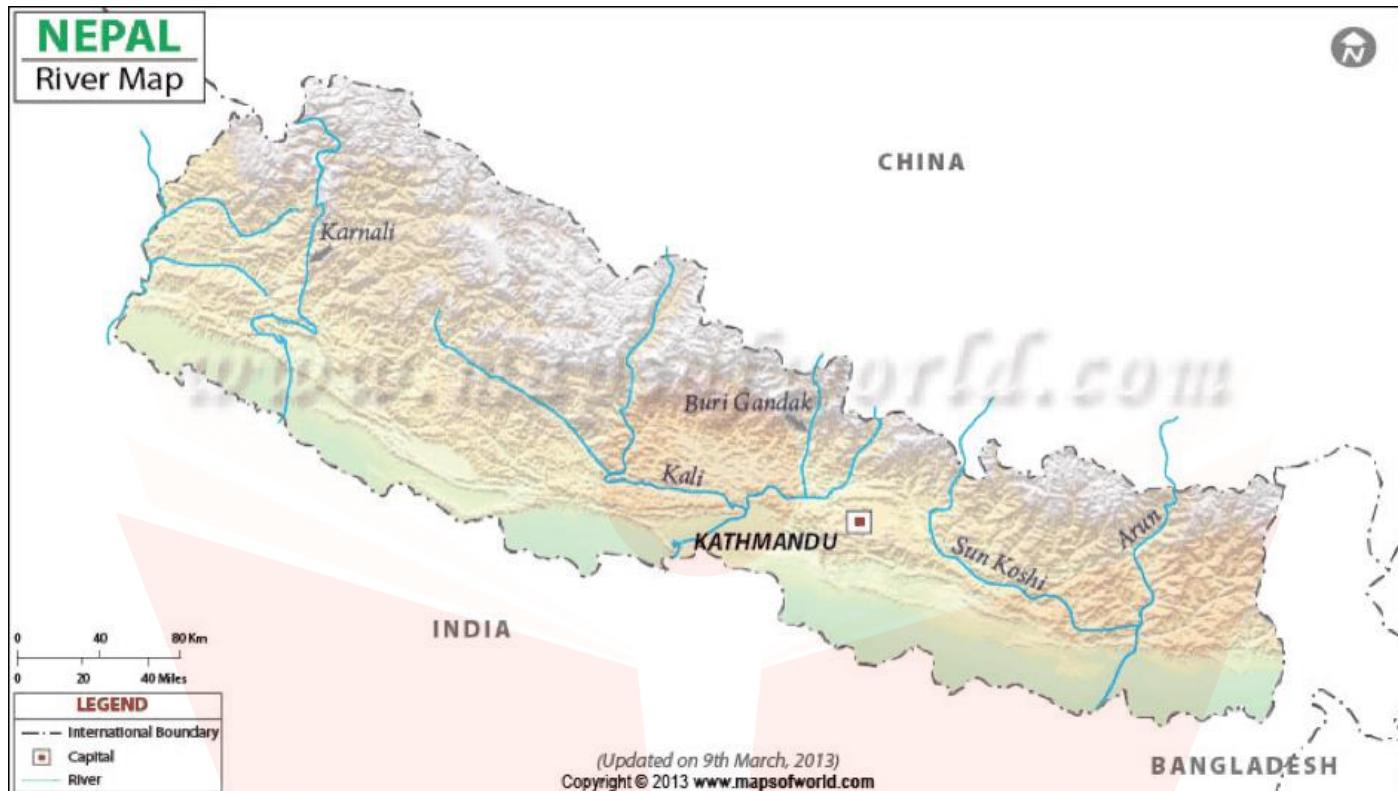
- Investment for generation component of Arun-3 HEP (900 MW) for an estimated cost of Rs. 5723.72 crore at May 2015 Price Level.
- Completion period of the project shall be 60 months from the date of financial closure which is planned for September this year.
- Ex-post facto approval for the existing implementing agency, already incorporated in the name of SJVN Arun-3 Power Development Company (P) Limited (SAPDC) registered in Nepal as a 100% subsidiary of SJVN Limited for implementing the project.
- Any component of work already or being made by the Nepalese authorities shall be so certified by Central Electricity Authority (CEA) and shall be accordingly deducted from the project cost requirements.

About the Project:

The project is located on Arun River in Sankhuwasabha District of Eastern Nepal. The Run-of-River scheme envisages about 70 mtr. high concrete gravity dam and Head Race Tunnel (HRT) of 11.74 Km. with underground Power House containing four generating units of 225 MW each on Left Bank.



- The project will provide surplus power to India strengthening power availability in the country and will also strengthen economic linkages with Nepal. The power from the project shall be exported from Dhalkebar in Nepal to Muzaffarpur in India.
- Employment generation of around 3000 persons is envisaged in construction of the project from both India and Nepal.



Background:

SJVN limited bagged the project through International Competitive Bidding. An MoU was signed between Government of Nepal and SJVN Limited for the project in March, 2008 for execution on Build Own Operate and Transfer (BOOT) basis for a period of 30 years including five years of construction period. The Project Development Agreement (PDA) signed in 2014, which provides 21.9% free power to Nepal for the entire concession period of 25 years.

Sources: pib.

'Legally vetted' pact on services tabled at WTO

India has submitted to the World Trade Organisation (WTO) a legally vetted proposal on a global services pact, that among other things, aims to ease norms for movement of skilled workers across borders for short-term work.

Key facts:

- In October 2016, India had tabled a concept note on the proposed TFS at the WTO and followed it up with a paper on its possible elements in November 2016. The TFS proposal is on the lines of the Trade Facilitation Agreement (TFA) in Goods.
- According to India, the proposed TFS pact is also about 'facilitation' – that is "making market access 'effective' and commercially meaningful and not about 'new' (or greater) market access."
- The proposed pact also aims to ensure portability of social security contributions, a single window mechanism for foreign investment approvals and cross-border insurance coverage to boost medical tourism.

**Way ahead:**

The proposal for a Trade Facilitation in Services (TFS) Agreement will be taken up by an expert committee at the WTO headquarters in Geneva during March 14-17, following which it will be put up for discussion among all the WTO members.

Sources: the hindu.

India, Israel to develop missile for Army

India has approved a deal with Israel to develop jointly a medium range surface-to-air missile (MR-SAM) system for the Army in a ₹17,000-crore deal. The Cabinet Committee on Security (CCS) gave the go-ahead for the deal to be executed by the Defence Research and Development Organisation (DRDO) and Israel Aircraft Industries (IAI).

Key facts:

- This is the latest in a series of other variants of SAM systems for the Navy and the Air Force being jointly developed with Israeli help under deals estimated at billions of dollars.
- The deal is for five regiments of the missile, which consists of 40 units and 200 missiles. It has a range of 50-70 km.
- The system will be based on the older Barak system of Israel, which is in use in India. It is being changed as per requirements.
- The systems will be manufactured in India and would have an 80% indigenous content.

Sources: the hindu.

India, Germany ratify social security agreement

India and Germany have ratified the Social Security Agreement (SSA), which will come into force from May 1 this year, to help promote more investment flows between the two countries.

Key facts:

- The agreement establishes the rights and obligations of nationals of both countries and provides for their equal treatment and unrestricted payment of pensions even in case of residence in the other contracting state (benefits export principle).
- The SSA will also integrate the provisions of the 2008 social insurance pact that exempts detached workers of the two countries from making social security contributions in either countries so long as they were making such contributions in their respective countries.
- The requirements to be entitled to a pension can be met by aggregating the periods of insurance completed in India and Germany, whereby each country pays only the pension for the insurance periods covered by its laws. The period of posting will be up to 48 calendar months.

Background:

India and Germany had earlier signed an Agreement on Social Insurance on 8 October 2008 which came into force on 1 October 2009. According to this agreement, detached workers of the two countries were exempted from making social security contributions in either countries as long as they were making such contributions in their respective countries. Subsequently a wider encompassing SSA including totalisation of benefits was negotiated and the SSA was signed by the two nations on 12 October 2011.

Till date, India has signed and operationalised similar agreements with 18 countries, including Australia, Belgium, Canada, France, South Korea, Germany and Japan.



Bahrain may enhance direct air connectivity to India

Bahrain, which historically served as a gateway between East and West, is planning to enhance air connectivity with India and other Asian countries. The move follows a decision by Asian carriers to operate more direct flights to Bahrain International Airport (BIA) to help passengers save time and money.

Background:

India figures high on the agenda as it represents 20% of Bahrain's air traffic and this market is set to grow between five and 7% in the near term. Over 350,000 Indian nationals work in Bahrain and they travel mostly through connecting flights from hubs in Dubai and Abu Dhabi. Bahrain has a large segment of expatriate workers and businesspeople from India, which gives it large potential for high traffic numbers.

About Bahrain:

Bahrain is a small Arab monarchy in the Persian Gulf. It is an island country consisting of a small archipelago centered around Bahrain Island, situated between the Qatar peninsula and the north eastern coast of Saudi Arabia, to which it is connected by the 25 km (16 mi) King Fahd Causeway. It is 780 km² in size, making it the third smallest nation in Asia after the Maldives and Singapore.

Bahrain had the first post-oil economy in the Persian Gulf. Bahrain is the site of the ancient Dilmun civilisation.

Sources: the hindu.

CLMV conclave

4th India – CLMV (Cambodia, Lao PDR, Myanmar and Vietnam) Business Conclave was recently held in Jaipur. India's trade with the CLMV countries has grown from USD 1.5 bn to more than USD 10 bn in the last 10 years.

- During the conference, government and business community of CLMV countries were invited to actively partner in India's initiative to strengthen manufacturing capacities.

About CLMV:

Cambodia, Lao PDR, Myanmar and Vietnam collectively, is the third largest economy in ASEAN, followed by Indonesia and Thailand. Due to close proximity, India is looking to boost trade and investment with the CLMV region as part of the 'Act East' policy announced by the Prime Minister during the 12th India – ASEAN Summit in 2013.



CLMV conclave:

The CLMV conclave is an annual feature which provides an opportunity for Indian business leaders to interact with government and business stakeholders representing the four countries. The conclave facilitates to create and provide a platform for the decision makers from CLMV countries to interact with a range of Indian business companies involved in trading, manufacturing, processing, engineering, consultancy, construction etc.

Sources: pib.



Paper 2 Topic: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

H-1B visa reform bill introduced in US House of Representatives

With a hard stance on immigration, the High-Skilled Integrity and Fairness Act of 2017 that will overhaul the popular H1B and L1 visas has been tabled in the US Congress. This reform bill, if passed, would mean significant changes in the way the H1B visas are granted to companies and allocated to employees by them.

- Some of the worst hit by the new H1B bill will be Indian companies such as Infosys, TCS, and Wipro, as well as US tech giants like Apple, Facebook and Google, who use the H1B visa to fill positions that cannot be filled by American workers.

What is H1B visa?

The H1B visa is a non-immigrant visa that allows companies to employ foreigners for a period of up to six years. This visa is aimed at helping companies employ foreigners in positions for which they have been unable to find American employees. The minimum salary for an employee holding the H1B visa is set at \$60,000 per year. H1B visa holders are allowed to apply for permanent residency in the US as well as buy or sell property in the country.



Every year, the US government grants 65,000 H1B visas, while an additional 20,000 are given to foreign students who have completed their masters course from a US university. In accordance with the Free Trade Agreements that the US has with Singapore and Chile, they get additional 5,400 and 1,400 visas under the H-1B1 category, respectively.

What does the new H1B reform bill propose?

The new H1B visa reform bill proposes a radical overhaul of the process, increasing the minimum salary for visa holders to be \$130,000, more than double the current minimum. This would mean that companies would have to either pay rather highly for the skilled workers, or not choose foreign employees in favour of American citizens. The new visa reform bill also eliminates the category of lowest pay, and raises the salary level at which H1B dependent employer are exempt from non-displacement and recruitment attestation requirements to greater than \$130,000.

The H1B visa bill removes the 'per country' cap for employment-based immigrant visas. It sets aside 20% of the annually allocated H1B visas for small companies and startup employers (50 or fewer employers) to ensure small businesses have an opportunity to compete for high-skilled workers.

Sources: [toi](#).

Souring US-Iran ties may spell trouble for Chabahar port

India is keeping a wary eye on the strains developing in US-Iran relations after the Trump administration slapped sanctions on the West Asian country over its missile programme.

Background:

Iran's ballistic missile programme has been a thorny issue with countries like the US, since the nuclear deal took effect last January. The deal—clinched in Vienna in July 2015—commits Iran to providing the International Atomic Energy Agency (IAEA) with greater access and information on its nuclear programme.

However, the recent sanctions announced by the US on Iran seem to be the opening salvo by President Donald Trump who has threatened a more aggressive policy toward Iran.

**What's the concern?**

Deterioration in US-Iran ties could spell trouble for India's plans to develop the Chabahar port, which New Delhi sees as key to gaining access to landlocked Afghanistan and Central Asia.

For India, the current state of events seems to present a dilemma as it looks to establish a working relationship with Washington.

About Chabahar port development project:

The project first found mention in an India-Iran joint statement issued in 2003. Fourteen years later, the venture is far from fruition—thanks mainly to India being caught up in US-Iran tensions. In the annual budget unveiled on 1 February, the government has allocated some \$21 million for the project.

- The port is located on the Makran coast, Chabahar in southeastern Iran. Its location lies in the Gulf of Oman. This coast is a relatively underdeveloped free trade and industrial zone, especially when compared to the sprawling port of Bandar Abbas further west. Also, it is the only Iranian port with direct access to the ocean.

Sources: the hindu.

India not fulfilling responsibilities under Indus treaty: Pakistan

Voiceing concerns over India's construction of new dams, Pakistan has accused India of not fulfilling its responsibilities under the Indus Waters Treaty.

Background:

Recently, Pakistan had taken up the issue of the construction of dams with World Bank. It had urged the World Bank to play a "lead role" in resolving the water disputes between Pakistan and India by establishing a Court of Arbitration.



The World Bank had brokered the famous Indus Waters Treaty (IWT) in 1960, apportioning the several rivers and utilisation of their waters between Pakistan and India. It is also the guarantor of the IWT and adjudicates any dispute between the two countries.

About the treaty:

Signed in 1960 by then Prime Minister Jawaharlal Nehru and then Pakistan President Ayub Khan, the treaty allocates 80% of water from the six-river Indus water system to Pakistan.

- Beas, Ravi, Sutlej, Indus, Chenab and Jhelum from the Indus water system that flows from India to Pakistan. The Indus river basin spans parts of 4 countries (Afghanistan, Pakistan, India and China) in an area that is more than 30% arid.
- Under the treaty, control over six north Indian rivers were divided between the two countries. India got control over the rivers Beas, Ravi and Sutlej whereas Pakistan got control over Indus, Chenab and Jhelum.
- This is a unique treaty involving a third party. It was brokered by the World Bank.
- A Permanent Indus Commission was set up as a bilateral commission to implement and manage the Treaty. The Commission solves disputes arising over water sharing.
- The Treaty also provides arbitration mechanism to solve disputes amicably.



Sources: et.

India hands over to the UK extradition request for Vijay Mallya

India has handed over to the UK an extradition request for absconding businessman Vijay Mallya who is facing cases of loan default and other financial irregularities.

Background:

Last month, a CBI court had issued a non-bailable warrant against Mallya in the Rs 720-crore IDBI Bank loan default case. Mallya, whose now-defunct Kingfisher Airlines owes more than Rs 9,000 crore to various banks, had left India on March 2, 2016.

What is extradition?

Extradition refers to the surrender of a criminal to one country by another. The process of extradition is regulated by treaties between the two countries. Extradition is important because it helps to maintain the sanctity of the penal code of one country or territory. The penal code says that it shouldn't apply its criminal law to a person who committed an offence outside its territories except when the crime is related to the country's national interest.

What are the internationally accepted conditions for extradition?

- The crime done by the accused should fall in the category of dual criminality. This means that it should be a punishable offence according to the laws of both countries – the one where the accused has taken refuge, and the one that seeks extradition.
- Persons charged for political reasons are generally not extradited.



- There are countries where capital punishment is banned. If a fugitive has taken refuge in such a country, and if the establishment of that country thinks that, if extradited, the accused might get capital punishment, the country most likely refuses to extradite.

Extradition laws in India:

- In India, the Extradition Act, 1962, regulates the surrender of a person to another country or the request for arrest of a person in a foreign land. According to the act, any conduct by a person in India or elsewhere mentioned in a list of extradition offences punishable with a minimum one year of imprisonment qualifies for an extradition request.
- The process of extradition is to be initiated by the central government. Currently, India has extradition treaties with 38 countries.
- If there is no treaty with the country from which the fugitive is to be extradited, then there aren't any defined guidelines for the law to be applied and procedure to be followed. In such a scenario, a lot depends on the cooperation and coordination between different authorities of the two countries. Another option is to resort to a Mutual Legal Assistance Treaty wherein both countries agree to exchange information in order to enforce criminal laws.
- If the extradition request comes from two or more countries, then the government has the right to take the call to decide which country is fittest for the request. Since 2002, India has extradited 44 fugitive criminals to various countries. On the contrary, India has got 61 criminals extradited to itself from different countries since 2002.

Sources: the hindu.

Global wealth migration up

According to New World Wealth's latest report on global wealth and wealth migration trends in 2016, Global wealth migration is accelerating as around 82,000 ultra-rich people shifted overseas in 2016, compared to 64,000 in 2015.

Highlights of the report:

- Australia is the top country for millionaire inflows. An estimated 11,000 millionaires moved to Australia in 2016 compared to 10,000 that moved to the U.S. and 3,000 that moved to the U.K.
- The reasons behind Millionaires preferring Australia to the U.S. and the U.K. is that it has one of the best healthcare systems in the world and its location makes it a good base for doing business in emerging Asian countries such as China, Hong Kong, Korea, Singapore, Vietnam and India.
- Moreover, Australia is relatively immune to the turmoil in the West Asia and the related refugee crisis in Europe and it has lower inheritance taxes than the U.S. and much lower inheritance taxes than the U.K. Other countries that experienced large inflows of HNWIs in 2016 include Canada, UAE, New Zealand and Israel.
- On the other hand, countries that lost large numbers of HNWIs in 2016 included France, Turkey and Brazil. Large outflow of millionaires from France (over 12,000 millionaires in 2016) is notable. France is being heavily impacted by rising religious tensions between Christians and Muslims.

Sources: the hindu.

China's 'neighbouring base' in Djibouti worries U.S.

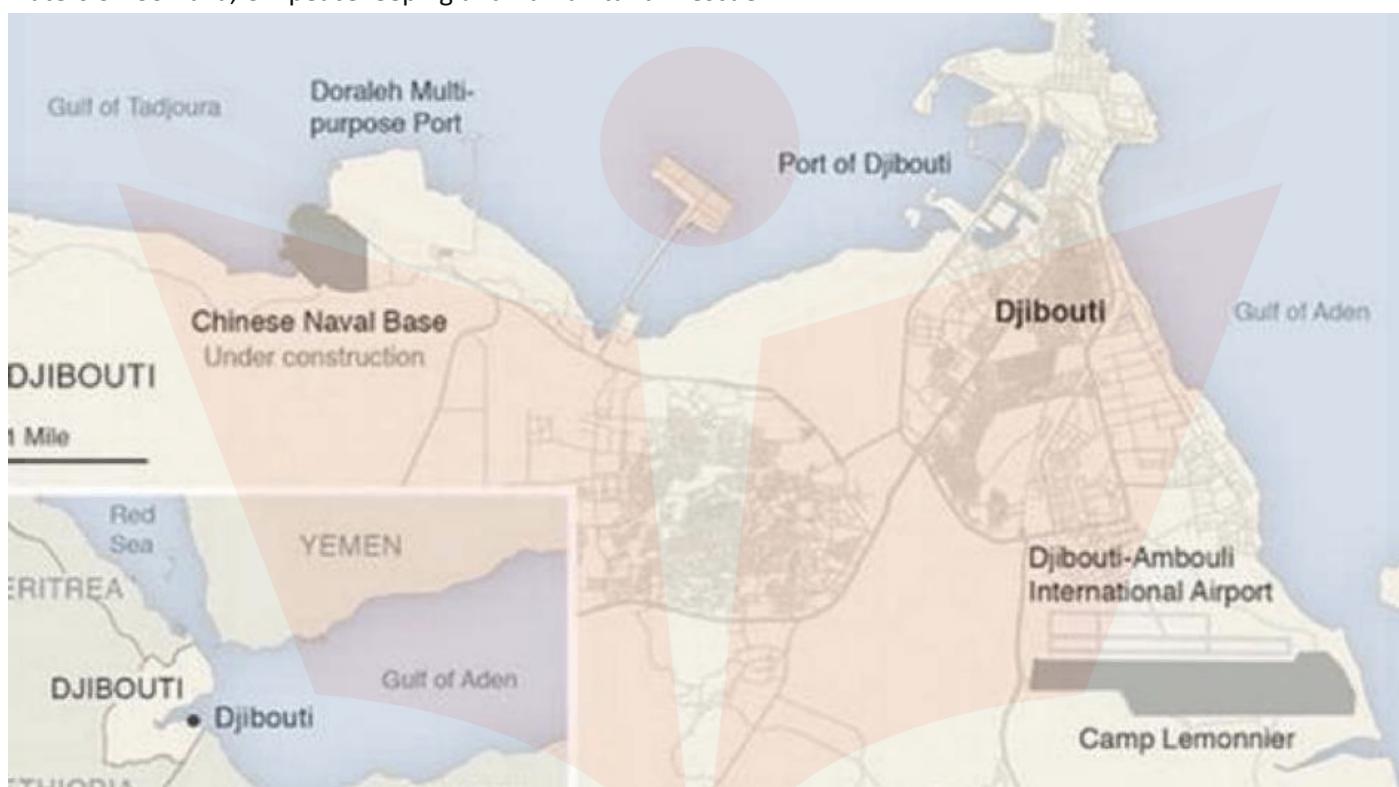
China is constructing its first overseas military base in Djibouti — just a few miles from Camp Lemonnier, one of the Pentagon's largest and most important foreign installations. With this, United States and China will become neighbours in this sun-scorched patch of East African desert.

Why is US worried?

- Established after the terrorist attacks of Sept. 11, 2001, Camp Lemonnier is home to 4,000 personnel. Some are involved in highly secretive missions.
- S. strategists worry that a naval port so close to Camp Lemonnier could provide a front-row seat to the staging ground for U.S. counterterrorism operations in the Arabian Peninsula and North Africa.
- The base, which is run by the Navy and abuts Djibouti's international airport, is the only permanent U.S. military installation in Africa.

What China says?

Chinese officials play down the significance of the base, saying it will largely support anti-piracy operations that have helped quell the threat to international shipping once posed by marauding Somalis. The support facility will be mainly used to provide rest and rehabilitation for the Chinese troops taking part in escort missions in the Gulf of Aden and waters off Somalia, UN peacekeeping and humanitarian rescue.



About Djibouti:

Djibouti, officially the Republic of Djibouti, is a country located in the Horn of Africa. It is bordered by Eritrea in the north, Ethiopia in the west and south, and Somalia in the southeast. The remainder of the border is formed by the Red Sea and the Gulf of Aden at the east.

Sources: the hindu.

Paper 2 Topic: Important International institutions, agencies and fora, their structure, mandate.

The Asia LPG Summit

The WPLGA Asia LPG Summit was recently inaugurated in Delhi. In this event, India will showcase its various initiatives such as the Ujjwala, Direct Benefit Transfer and 'Give-it-up' schemes aimed at increasing access of its population to LPG.



- The Asia Summit will be accompanied by the India LPG Summit ‘Emerging Trends’.

About Asia LPG Summit:

The WLPGA (World LPG Association) is organizing its major global event ‘the WLPGA Asia LPG Summit’ for the first time in India in partnership with the major Oil PSUs Indian Oil, HPCL, and BPCL.

- More than 600 delegates from over 35 countries are attending the prestigious event where the deliberations will focus on the need for replacing the use of traditional fuels such as firewood and charcoal with LPG among populations of the developing world as part of global efforts to increase access to clean energy.
- This will be an opportunity for the global LPG industry, along with development agencies, NGOs, academia and private sector to hear about the remarkable transformation taking place in the Indian LPG sector with initiatives such as the ‘Pradhan Mantri Ujjwala Yojana’, ‘Pahaal’- Direct Benefit Transfer and ‘Give-it-up’ turning out to be hugely successful.
- The discussions will focus on finding new ways to improve access and delivery of LPG to the last household by involving the LPG sector, independent organizations working in the field and government agencies from across the world.

Background:

India is today the world’s second biggest consumer of LPG in the domestic sector with annual consumption exceeding 18 million tonnes and about a 10% annual growth. In the last two years, India embarked on an unprecedented expansion of its LPG reach through some hugely successful programmes that have ensured LPG access to over 800 million plus people. The key objectives of these programmes are to provide LPG connections to BPL households.

About World LPG Association:

The World LPG Association (WLPGA) is the authoritative global voice for the liquefied petroleum gas (LPG) industry and the worldwide industry association which represents the interests of the LPG industry globally. The WLPGA promotes the use of LPG to foster a cleaner, healthier and more prosperous world.

- With over 200 members headquartered in more than 125 countries, the WLPGA represents the interests of private and public companies from the entire LPG value chain under one umbrella.
- The WLPGA provides a platform for the exchange of best practices, facts and figures among its members.
- The Association regularly organises interactive meetings between technical experts, members and key stakeholders to demonstrate the benefits of LPG.
- The WLPGA was officially granted Consultative Status with the United Nations Economic and Social Council in 1989. Publications such as its Annual Statistical Review have become LPG industry references.

Sources: pib.

Annual Maritime Power Conference – 2017

Annual Maritime Power Conference – 2017 will be held in Delhi. The National Maritime Foundation (NMF) has organized the conference.

Key facts:

- The theme of this year’s conference- ‘The Blue Economy: Concept, Constituents and Development’.



- This conference aims to add to the understanding of the discourse on Blue Economy and intends to discuss its constituents in an attempt to develop a common understanding of the concept.
- It seeks to identify the opportunities and challenges with the aim of evolving concrete recommendations towards harnessing the Blue Economy, while ensuring efficient utilization of marine resources and sustained development of the oceans.

About NMF:

The NMF was established in 2005 to provide a common platform for discourse between maritime-related institutions, organisations and disciplines, within the country and abroad.

- The Foundation conducts independent academic research and provides policy-relevant recommendations to advance the nation's maritime goals.
- As a part of its charter, NMF endeavours to foster maritime awareness on contemporary issues through academic engagements and towards this end, the Foundation organises an Annual Maritime Power Conference (AMPC).

Sources: pib.

India will host the first meeting of national security advisers of BIMSTEC countries

India will host the first meeting of national security advisers of BIMSTEC countries in the coming months to coordinate action against terrorism, extremism and radicalization.

- This was decided at a recent BIMSTEC meet in Kathmandu ahead of the fourth Summit of the grouping to be held in Nepal this year.

About BIMSTEC:

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organization involving a group of countries in South Asia and South East Asia.

- The BIMSTEC comprises of seven countries, Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand.
- The main objective of BIMSTEC is technological and economical cooperation among South Asian and South East Asian countries along the coast of the Bay of Bengal.
- The headquarters of BIMSTEC is in Dhaka.



Sources: et.

New IMF Training and Technical Assistance Center (SARTTAC)

New IMF Training and Technical Assistance Center (SARTTAC) was recently inaugurated in Delhi for Economic Capacity Building in South Asia.

- Less than a year after IMF Managing Director Ms Christine Lagarde and the Finance Minister of India, Shri Arun Jaitley, signed a Memorandum of Understanding (MOU) to establish a capacity development center for South Asia, the opening of SARTTAC marks a major milestone in the partnership between the IMF and its member countries in the region.

**About SARTTAC:**

SARTTAC, the newest addition to the IMF's global network of fourteen regional centers, is a new kind of capacity development institution, fully integrating customized hands-on training with targeted technical advice in a range of macroeconomic and financial areas, and generating synergies between the two.

- SARTTAC is financed mainly by its six member countries — Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka — with additional support from Australia, the Republic of Korea, the European Union and the United Kingdom.
- SARTTAC's strategic goal is to help its member countries strengthen their institutional and human capacity to design and implement macroeconomic and financial policies that promote growth and reduce poverty.
- SARTTAC will allow the IMF to meet more of the high demand for technical assistance and training from the region. Through its team of international resident experts, SARTTAC is expected to become the focal point for the delivery of IMF capacity development services to South Asia.

Sources: pib.

Centre not for terming Pakistan a 'terror state'

The Centre has decided to oppose a Private Member's Bill moved in the Rajya Sabha recently seeking to declare countries like Pakistan "terror states."

What's the issue?

An independent Member of Parliament had recently moved The Declaration of Countries as Sponsor of Terrorism Bill, 2016 to impose legal, economic and travel sanctions on citizens of countries which promote terror.

While presenting the Bill, the MP said, "For decades, India and other countries in the region have been victims of terror attacks from organisations and individuals based in and with the support of elements in Pakistan. Yet for decades we have remained engaged with Pakistan in an attempt to draw it into the mainstream. Pakistan's track record of fostering terrorism and terrorists is long and incontrovertible. It is time that we stop running to other countries to declare Pakistan a terror state and stood up and did this job ourselves."

Why the government is opposing the Bill?

The Home Ministry is opposing the Bill as it jeopardises international relations under the Geneva Convention. The government feels that it will be not prudent to declare any country as a terror state as India is bound by international norms.

Way ahead:

A private member's Bill can be enacted into a law once it has been screened by a House committee, which is optional, and passed by a majority vote.

Sources: the hindu.

IFC invests \$47.5 mn. in Granules India

World Bank arm International Finance Corporation (IFC) plans to part-fund the expansion programme of Hyderabad-based pharma firm Granules India Ltd, which includes setting up of a greenfield facility for manufacturing APIs (active pharmaceutical ingredients) in Vishakhapatnam, Andhra Pradesh.

- The proposed investment would be the fourth by IFC in the company and in the form of debt investment of up to \$47.5 million.

**About the International Finance Corporation (IFC):**

The International Finance Corporation (IFC) is an international financial institution that offers investment, advisory, and asset management services to encourage private sector development in developing countries.

- It is a member of the World Bank Group and is headquartered in Washington, D.C., United States.
- It was established in 1956 as the private sector arm of the World Bank Group to advance economic development by investing in strictly for-profit and commercial projects that purport to reduce poverty and promote development.
- The IFC is owned and governed by its member countries, but has its own executive leadership and staff that conduct its normal business operations.
- It is a corporation whose shareholders are member governments that provide paid-in capital and which have the right to vote on its matters.

Functions:

- It offers an array of debt and equity financing services and helps companies face their risk exposures, while refraining from participating in a management capacity.
- The corporation also offers advice to companies on making decisions, evaluating their impact on the environment and society, and being responsible.
- It advises governments on building infrastructure and partnerships to further support private sector development.

Sources: the hindu.



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GS III

Paper 3 Topic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

CBDT signs four 'Advance Pricing Agreements' today

The Central Board of Direct Taxes (CBDT) has announced signing of four more unilateral Advance Pricing Agreements (APAs).

Key facts:

- The four APAs signed pertain to the manufacturing, financial and Information Technology sectors of the economy.
- The international transactions covered in these agreements include contract manufacturing, IT enabled services and software development services.
- With this, the total number of APAs entered into by the CBDT has reached 130. This includes eight bilateral APAs and 122 Unilateral APAs. In the current financial year, a total of 66 APAs (five bilateral APAs and 61 unilateral APAs) have already been entered into.

About the APA scheme:

The APA scheme was introduced in the Income-tax Act in 2012 and the "rollback" provisions were introduced in 2014. The scheme endeavors to provide certainty to taxpayers in the domain of transfer pricing by specifying the methods of pricing and determining the prices of international transactions in advance.

- Since its inception, the APA scheme has evinced a lot of interest from taxpayers and that has resulted in more than 700 applications (both unilateral and bilateral) being filed so far in about five years.
- The progress of the APA Scheme strengthens the government's resolve of fostering a non-adversarial tax regime. The Indian APA program has been appreciated nationally and internationally for being able to address complex transfer pricing issues in a fair and transparent manner.

Sources: the hindu.

SEBI to form panel to facilitate crowdfunding

The Securities Exchange Board of India (SEBI) is forming an advisory committee on financial technology or fintech-related issues, which would look at safeguards that can be put in place to facilitate crowdfunding of 'genuine' ventures and mobilise more household savings into the financial markets.

Key facts:

- The committee will help to address the issues and mobilise domestic savings, which will spur growth of the economy.
- It will help mobilise savings through technology solutions.
- The committee will examine the best way forward to facilitate crowdfunding of genuine ventures.

Background:

There is a huge potential for channelising household savings into capital markets for growth of the country. According to experts, with the economy doing well and a well-regulated market, the current numbers for household savings invested in capital markets are unacceptable.



Centre aims to invest ₹2,200 cr. in electronic technology start-ups

The Centre is targeting an investment of about ₹2,200 crore by 2019 in start-ups working on new technologies in the electronic sector under the Electronics Development Fund (EDF).

- The EDF would put in 10% of the capital in ‘daughter funds’ and the rest would be invested by venture capitalists. Hence, a targeted investment of ₹2,200 crore by the government will help mobilise ₹22,000 crore for the ‘daughter funds,’ which will then invest primarily in start-ups.

About Electronics Development Fund (EDF):

The EDF is a ‘fund of funds’ that works with venture capitalists to create funds, known as ‘daughter funds,’ which provide risk capital to companies developing new technologies in the area of electronics, nano-electronics and IT.

- The fund is an attempt to develop the electronics system design and manufacturing sector in the country to achieve “net zero imports” by 2020.

Sources: the hindu.

NIIF to raise Rs 8k cr from anchor investors in FY18

The National Investment and Infrastructure Fund (NIIF) will tap anchor investors such as sovereign wealth funds to raise Rs 8,000 crore to fund infrastructure projects worth Rs 16,000 crore in FY18.

- According to the Output Outcome Framework for Schemes 2017-18, the Fund will raise Rs 8,000 crore from strategic anchor partners, ie, multilateral/bilateral institutions, SWFs, pension funds and domestic public sector enterprises.
- The government has set a target for the Fund to finance projects worth R16,000 crore infrastructure projects, both greenfield & brownfield.

About NIIF:

The National Investment and Infrastructure Fund (NIIF) was proposed in Union Budget 2015. In the last week of December, the government has set up this Rs. 40000 crore fund to provide long term capital for infrastructure projects.

- The objective of NIIF is to maximise economic impact through infrastructure development in viable projects both greenfield and brownfield, including stalled projects, mainly in the core infra sector.
- NIIF has been structured as a fund of funds and set up as Category II Alternate Investment Fund (AIF) under the Securities and Exchange Board of India (SEBI) Regulations.

Sources: et.

Multilateral FIs allowed to invest in ‘masala bonds’

The Reserve Bank of India (RBI) has permitted multilateral and regional financial institutions to invest in rupee-denominated bonds.

- This decision aims to provide more choices of investors to Indian entities issuing rupee-denominated bonds abroad.
- With this, agencies like the Asian Development Bank and the BRICS led New Development Bank can also invest in these bonds.

**What are Masala bonds?**

Masala bonds are bonds issued outside India but denominated in Indian Rupees, rather than the local currency. The term was used by IFC to evoke the culture and cuisine of India. Unlike dollar bonds, where the borrower takes the currency risk, masala bond makes the investors bear the risk.

The first Masala bond was issued by the World Bank backed International Finance Corporation in November 2014 when it raised 1,000 crore bond to fund infrastructure projects in India. Later in August 2015 International Financial Corporation for the first time issued green masala bonds and raised Rupees 3.15 Billion to be used for private sector investments that address climate change in India.

Sources: the hindu.

Fourth series of Sovereign Gold Bonds

The Centre has decided to come out with the fourth series of Sovereign Gold Bonds 2016-17, which the Reserve Bank of India will issue on its behalf. The bonds will be issued on March 17.

- The bonds will be sold through banks, Stock Holding Corporation of India (SHCIL), designated post offices and recognised stock exchanges — National Stock Exchange and Bombay Stock Exchange.

About Sovereign Gold Bond scheme:

Launched by Prime Minister Narendra Modi in November 2015, the Sovereign Gold Bond scheme aims at cutting down the huge demand for the precious metal.

Salient features:

- Minimum investment under the Gold Bond scheme is one gm.
- Maximum investment under the Gold Bond scheme is 500 gm.
- Interest to be obtained under the Gold Bond scheme is at a fixed rate of 2.75 per cent payable every six months.
- The Gold Bond scheme is available in DEMAT and paper form.
- The Gold Bond scheme has a tenure of eight years, with exit options in the 5th, 6th and 7th year.
- At time of exit the bond can be redeemed at market rate of gold.
- The gold bond can be used as collateral to avail a loan.
- Can be used as collateral for loans.
- Capital gain tax will be exempted on redemption.

Sources: pib.

PoEM won't apply to cos with turnover less than Rs 50 cr per annum, clarifies govt

In a relief to smaller companies and firms, the Central Board of Direct Taxes (CBDT) has clarified that place of effective management (PoEM) regulations won't apply to companies and firms that have a turnover or gross receipts of less than Rs 50 crore per annum.

- While this leeway was already present in the original regulations it was not explicitly mentioned in the PoEM circular issued recently by the government.

What is PoEM?

PoEM is a tax framework recently amended by the government to determine the tax liability of any foreign company that for all purposes is managed from India but do not pay tax domestically.



The PoEM is mainly used to determine whether a company, subsidiary or a firm really has a base in India and if all the decisions regarding the running of the company are taken from India. If PoEM test proves that a subsidiary of a multinational or any other company or firm is managed from India, domestic taxation laws would be applied to such an organisation.

Background:

The government has introduced PoEM as many Indian multinationals hold foreign companies through intermediary companies registered in tax-friendly countries like Mauritius and Singapore. These companies are only used for collecting dividend or interest. The government has taken a view that since such shell companies are only brought in as part of tax planning, they should pay tax in India.

The regulations are mainly aimed at companies which for all purposes have a base in India but as part of tax planning have holding companies registered outside India.

Sources: et.

Paper 3 Topic: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

India slips to 143 in economic freedom index

The Heritage Foundation has released its Index of Economic Freedom report 2017.

About the index:

Economic freedom is measured based on 12 quantitative and qualitative factors, grouped into four broad categories, or pillars, of economic freedom:

1. Rule of Law (property rights, government integrity, judicial effectiveness).
2. Government Size (government spending, tax burden, fiscal health).
3. Regulatory Efficiency (business freedom, labor freedom, monetary freedom).
4. Open Markets (trade freedom, investment freedom, financial freedom).

Each of the ten economic freedoms within these categories is graded on a scale of 0 to 100. A country's overall score is derived by averaging these ten economic freedoms, with equal weight being given to each.

Highlights of the report:

- India is ranked 143, behind its several South Asian neighbours including Pakistan, as progress on market-oriented reforms has been “uneven”.
- India has been placed in the category of “mostly unfree” economies, as progress on market-oriented reforms has been “uneven”.
- India’s overall score of 52.6 points is 3.6 points less than that of last year, when India ranked 123rd.
- India is a significant force in world trade, the report noted, but corruption, underdeveloped infrastructure, and poor management of public finance undermine overall development.
- Hong Kong, Singapore and New Zealand topped the index. Among South Asian countries, only Afghanistan (163) and Maldives (157) were ranked below India.
- Nepal (125), Sri Lanka (112), Pakistan (141), Bhutan (107), and Bangladesh (128) surpassed India in economic freedom.
- China with a score of 57.4 points – an increase of 5.4 points compared to previous year – was placed at 111 position. The United States was ranked 17 with 75.1 points.
- The world average score of 60.9 is the highest recorded in the 23-year history of the index.
- Forty-nine countries – the majority of which are developing countries, but also including countries such as Norway and Sweden – achieved their highest-ever index scores.

Sources: the hindu.



Plan to allow larger firms to shut shop sans govt. nod

The Labour Ministry has proposed that factories with up to 500 workers be allowed to lay off workers or shut shop without seeking government permission, in a bid to give firms flexibility in hiring and firing employees.

- The Ministry is set to discuss the proposed Labour Code on Industrial Relations at the next meeting of the Group of Ministers (GoM).

Present scenario:

At present, factories with up to 100 workers are allowed to go in for retrenchment, lay-off or closure without seeking government permission, according to the Industrial Disputes Act, 1947.

Need for review:

There has been demand from the industry to increase the threshold limit for factories to seek permission for retrenchment from 100 workers to 500 workers.

Background:

In May 2015, the Labour Ministry had proposed integrating three labour laws — the Trade Unions Act, the Industrial Disputes Act and the Industrial Employment (Standing Orders) Act — into a single code for industrial relations. It had then also proposed allowing factories with up to 300 workers to retrench workers or close down without seeking official sanction.

However, the Centre had put the proposals on the back-burner after series of protests from the central trade unions on the proposed labour law reforms.

Implications of this move:

Most of the establishments in India needn't take government permission to retrench workers or close their set up. So, the amendments will only impact a very small proportion of the total establishments in the country.

Sources: the hindu.

Paper 3 Topic: Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.

Rs 2,845 cr released under AIBP for irrigation projects: Government

In its recent clarification, the government has said that it has so far released central assistance worth over Rs 2,845 crore for various Extension, Renovation and Modernisation (ERM) irrigation projects under the Accelerated Irrigation Benefits Programme (AIBP).

Accelerated Irrigation Benefits Programme:

The Accelerated Irrigation Benefit Programme (AIBP) was launched during 1996- 1997 to give loan assistance to the States to help them complete some of the incomplete major/medium irrigation projects which were at an advanced stage of completion and to create additional irrigation potential in the country.

- Grant component has been introduced in the programme from April 2004 like other Central Sector Schemes.



- As per the existing AIBP criteria effective from December 2006, grant amounting to 25% of the project cost for major and medium irrigation projects in non-special category States and 90% grant of the project cost for major/medium/minor irrigation projects in special category States are provided to the selected projects.
- The minor irrigation schemes in non-special category States falling in drought prone/tribal areas are treated at par with special category States and are provided 90% grant of the project cost.
- Major and medium projects providing irrigation benefits to drought prone/tribal area and flood prone area are also eligible for 90% grant of the project cost.

Sources: pib.

Paper 3 Topic: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

NCR Transport Corporation gets a Logo and Tagline

National Capital Region Transport Corporation, mandated with the responsibility of executing the Regional Rapid Transit System (RRTS) in National Capital Region has got a Logo and Tagline highlighting the vision of 'Gati Se Pragati' (Progress with Speed).

- The Logo has a fresh and new age look communicating vision and objective of sustainable urban development through rapid mass transport.

Background:

NCRTC is responsible for development, implementation and operation of RRTS which is based on suburban public transport system.



Ministry of Urban Development
Government of India

About RRTS:

RRTS will significantly reduce the travel time between important NCR towns.

On completion, RRTS will emerge as the fastest, comfortable and safe mode of transport in NCR.

- RRTS consists of three corridors viz., Delhi-Ghaziabad-Meerut, Delhi-Gurgaon-Alwar and Delhi-Panipat sections with a total length of 380 kms.
- Detailed Project Report of 92 km Delhi-Meerut corridor has already been approved by the NCRTC Board with an estimated cost of Rs.21,902 cr and is to come into operation by January,2023. DPRs of other two corridors are under finalization.

Sources: pib.

Cabinet approves enhancement of capacity from 20,000 MW to 40,000 MW of the Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects

The Cabinet Committee on Economic Affairs has approved the enhancement of capacity from 20,000 MW to 40,000 MW of the Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects.

- The enhanced capacity would ensure setting up of at least 50 solar parks each with a capacity of 500 MW and above in various parts of the country.
- Smaller parks in Himalayan and other hilly States where contiguous land may be difficult to acquire in view of the difficult terrain, will also be considered under the scheme.
- The capacity of the solar park scheme has been enhanced after considering the demand for additional solar parks from the States.

**About the Scheme:**

The scheme for “Development of Solar Parks and Ultra Mega Solar Power Projects” has been rolled out by Ministry of New & Renewable Energy on 12-12-2014. The Scheme has been conceived on the lines of the “Charanka Solar Park” in Gujarat which is a first-of-its-kind large scale Solar Park in India with contiguous developed land and transmission connectivity.

- This scheme envisages supporting the States in setting up solar parks at various locations in the country with a view to create required infrastructure for setting up of Solar Power Projects. The solar parks will provide suitable developed land with all clearances, transmission system, water access, road connectivity, communication network, etc. This scheme will facilitate and speed up installation of grid connected solar power projects for electricity generation on a large scale.
- Under this scheme, it is proposed to set up at least 25 Solar Parks and Ultra Mega Solar Power Projects targeting over 20,000 MW of solar power installed capacity within a span of 5 years starting from 2014-15.

Objectives:

The scheme aims to provide a huge impetus to solar energy generation by acting as a flagship demonstration facility to encourage project developers and investors, prompting additional projects of similar nature, triggering economies of scale for cost-reductions, technical improvements and achieving large scale reductions in GHG emissions.

Eligibility:

The solar parks will be developed in collaboration with State Governments/UTs. The State Governments/UTs are required to select the SPPD for developing and maintaining the solar parks. All the States and UTs are eligible for benefits under the scheme.

The State Government will first nominate the Solar Power Park Developer (SPPD) and also identify the land for the proposed solar park. It will then send a proposal to MNRE for approval along with the name of the SPPD.

Funding:

The SPPD will then be sanctioned a grant of upto Rs.25 Lakh for preparing a Detailed Project Report (DPR) of the Solar Park. Thereafter, Central Financial Assistance (CFA) of up to Rs. 20 lakhs/MW or 30% of the project cost including Grid-connectivity cost, whichever is lower, will be released as per the milestones prescribed in the scheme.

Solar Energy Corporation India (SECI) will administer the scheme under the direction of MNRE. The approved grant will be released by SECI.

Significance of UMSPP:

The Solar Parks and Ultra Mega Solar Power Projects will be set up by 2019-20 with Central Government financial support of Rs.8100 crore. The total capacity when operational will generate 64 billion units of electricity per year which will lead to abatement of around 55 million tonnes of CO₂ per year over its life cycle.

It would also contribute to long term energy security of the country and promote ecologically sustainable growth by reduction in carbon emissions and carbon footprint, as well as generate large direct & indirect employment opportunities in solar and allied industries like glass, metals, heavy industrial equipment etc. The solar parks will also provide productive use of abundant uncultivable lands which in turn facilitate development of the surrounding areas.

Sources: pib.



Sikkim becomes 22nd State to join UDAY

The Government of India and the State of Sikkim have signed a Memorandum of Understanding (MOU) under the Scheme Ujwal DISCOM Assurance Yojana (UDAY), for operational improvement of the State's Power Distribution Department.

Key facts:

- With the signing of MoU, the total number of States covered under UDAY has reached twenty-two.
- Sikkim would derive an Overall Net Benefit of approximately Rs. 207 crores through UDAY by way of cheaper funds, reduction in AT&C and transmission losses, interventions in energy efficiency, etc. during the period of turnaround.
- The MoU paves way for improving operational efficiency of the Power Distribution department of the State.
- AT&C losses and transmission losses would be brought down through compulsory distribution transformer metering, consumer indexing & GIS mapping of losses, upgrade/change transformers, meters etc., smart metering of high-end consumers, feeder audit etc., besides eliminating the gap between cost of supply of power and realisation.
- The reduction in AT&C losses and transmission losses to 15% and 3.50% respectively is likely to bring additional revenue of around Rs. 179 crores.

About UDAY:

UDAY or Ujwal Discom Assurance Yojna was launched in November 2015 to help loss-making discoms turn around financially, with support from their State governments.

- Under the scheme, States will take over three-fourths of the debt of their respective discoms. The governments will then issue 'UDAY bonds' to banks and other financial institutions to raise money to pay off the banks. The remaining 25% of the discom debt will be dealt within one of the two ways — conversion into lower interest rate loans by the lending banks or be funded by money raised through discom bonds backed by State guarantee. Backing from the State will help bring down the interest rate for the discoms.
- In return for the bailout, the discoms have been given target dates (2017 to 2019) by which they will have to meet efficiency parameters such as reduction in power lost through transmission, theft and faulty metering, installing smart meters and implementing GIS (geographic information system) mapping of loss making areas. States will also have to ensure that power tariffs are revised regularly.

Sources: pib.

India, ADB ink \$375 mn loan pact for industrial corridor

India and ADB have signed USD 375 million pact for loans and grants to develop 800—km Visakhapatnam—Chennai Industrial Corridor, which is the first phase of a planned 2,500-km East Coast Economic Corridor.

Background:

ADB had last September approved USD 631 million in loans and grants for the industrial corridor. The approved loans comprised a USD 500 million multitranche facility to build key infrastructure in the four main centers along the corridor — Visakhapatnam, Kakinada, Amaravati, and Yerpedu—Srikalahasti in Andhra Pradesh.

- The first tranche of USD 245 million that was signed will finance subprojects to develop high-quality internal infrastructure in 2 of the 4 nodes of the corridor — Visakhapatnam and Yerpedu—Srikalahasti.



- Loan will also be used for capacity development of institutions engaged in corridor management, provide support to enhance ease of doing business and for supporting industrial and sector policies to stimulate industrial development.

About East Coast Economic Corridor:

The East Coast Economic Corridor (ECEC) is India's first coastal economic corridor along its eastern coast, stretching about 2,500 kilometers from Kolkata in the north to Kanyakumari in the south.

- ECEC's long coastline and strategically located ports allow multiple international gateways to connect India with global value chains (GVCs) in East and Southeast Asia.
- ECEC supports the Government of India's (GoI) Make in India campaign, which aims to boost manufacturing by attracting foreign investment and facilitating the establishment of manufacturing hubs.
- ECEC also aligns with port-led industrialization under the Sagar Mala initiative and the Act East Policy by linking domestic companies with the vibrant global production networks of East and Southeast Asia.
- Because of the vastness of India's eastern coastline, ECEC's development is conducted in a phased manner. ECEC is being undertaken in 3 phases: phase 1 covers the Visakhapatnam-Chennai Industrial Corridor (VCIC); phase 2 involves the Chennai-Kanyakumari Industrial Corridor (CKIC); and phase 3 supports Orissa and West Bengal Industrial Corridor.

Sources: et.

Railways to roll out high speed indigenous rakes

The railways will soon manufacture its own train sets that can run at a maximum speed of 160 kilometre per hour, after its global bid in this regard failed to elicit positive response.

Key facts:

- Aptly named 'Train-2018', the first train set — a rake without a separate locomotive — is expected to be ready by March next year and likely to be pressed into service in Delhi-Lucknow or Delhi-Chandigarh sector.
- A train set, much like a Delhi Metro rake, comprises of many coaches that are individually powered by a propulsion system, eliminating the need for locomotive.
- Aiming to offer both comfort and pace to passengers, the project will roll out semi-high speed, 16-coach train sets with quicker acceleration and world-class passenger amenities.
- For the first time in Indian Railways, these train sets will have automatic plug type doors that will open and close at stations, wide windows for panoramic view, and ergonomically designed seating.
- Equipped with bio-toilets, all coaches in the fully AC train set will be inter-connected so that passengers can move from one coach to another with ease.
- As per the Rs. 200 crore project, two train sets will be manufactured, in collaboration with foreign players on transfer of technology basis, for which the Integral Coach Factory (ICF) has floated a fresh global tender.

Background:

The railways had floated a global tender for procurement-cum-maintenance and manufacture of 15 train sets with 315 coaches in June, 2015. Though five bidders had qualified for the initial round, they did not find the offer viable and asked for raising the tender size to 1,000 coaches.

Sources: the hindu.



Paper 3 Topic: Science and Technology- developments and their applications and effects in everyday life
Achievements of Indians in science & technology; indigenization of technology and developing new technology.

CRISPR Variant Produces Tuberculosis-Resistant Cows

A team of researchers from China has successfully utilized an innovative form of the genome-editing technique CRISPR to insert a new gene into the cow genome, rendering the animals much more resistant to tuberculosis.

- Researchers used a novel version of the CRISPR system called CRISPR/Cas9n to successfully insert a tuberculosis resistance gene into the cow genome.

How was this done?

In this study, the investigators inserted the NRAMP1 gene into the genome of bovine fetal fibroblasts—cells derived from female dairy cows—using the CRISPR/Cas9n technology. These cells were then used as donor cells in a process called somatic cell nuclear transfer (therapeutic cloning), where the nucleus of a donor cell carrying the new gene is inserted into an egg cell, known as an ovum, from a female cow.



- Next, the ova were nurtured in the lab into embryos before being transferred into mother cows for a normal pregnancy cycle. As a control, the experiments were also conducted using the standard CRISPR/Cas9 technology as a comparison. A total of 11 calves with new genes inserted using CRISPR were able to be assessed for resistance to tuberculosis and any off-target genetic effects.
- Genetic analysis of the calves revealed that NRAMP1 had successfully integrated into the genetic code at the targeted region in all of the calves. None of the calves that had the gene inserted using the new CRISPR/Cas9n technology had any detectable off-target effects, whereas all of the calves with the gene inserted with previously used techniques for CRISPR/Cas9 did.
- Remarkably, when the calves were exposed to *Mycobacterium bovis*, the bacterium that causes bovine tuberculosis, the researchers found that transgenic animals showed an increased resistance to the bacterium measured by standard markers of infection in a blood sample. Additionally, they found that white blood cells taken from the calves were much more resistant to *M. bovis* exposure in laboratory tests.

Background:

CRISPR technology has become widely used in the laboratory in recent years as it is an accurate and relatively easy way to modify the genetic code. The technology allows scientists to go in and essentially snip and tuck genes from one organism to another to enhance them in some way, and it's already been done with pigs, fish, mice, and mosquitos, as well as human embryos.

However, sometimes unintentional changes to the genetic code occur as an off-target effect, so finding ways to reduce these is a priority for genomics research.

Significance of this move:

With this, the researchers have successfully developed live cows carrying increased resistance to tuberculosis. Importantly, this method produced no off-target effects on the cow genetics, meaning that the CRISPR technology employed may be better suited to producing transgenic livestock with purposefully manipulated genetics.



Scientists confirm 'lost continent' beneath Mauritius

Scientists have made a startling discovery of an age old "Lost Continent" that has been found beneath the Indian Ocean Island of Mauritius.

How was it discovered?

The traces of zircon – disgorged during the volcanic eruptions – that was discovered on the rocks, signal the existence of an age old continent of Mauritia, which is believed to be lying somewhere underneath the islands in the Indian Ocean.

Zircons occur primarily in granites and form a part of the continent plates. These minerals also have traces of lead, uranium and thorium. Since the mineral has managed to survive the geological changes over a period of time, it is representative of the processes that have occurred and, therefore, could be "dated extremely accurately."

Background:

This lost continent is believed to be the outcome of the super continent Gondwana breaking up, which is almost 200 million years old! The discovery of the crust created quite a ripple and is believed to be the part of the ancient continent that broke off during the formation of the Indian Ocean. Scientists are researching more on process which led to the breaking up of this lost continent so as to comprehend the planet's geological history more vividly.

Sources: [toi](#).

New technology to make data transfer 10 times faster than 5G

Scientists have developed a next generation system which can transmit digital data over 10 times faster than 5G mobile networks, an advance that will pave the way for faster downloads and improve in-flight network connection speeds.

About the new technology:

Researchers have announced the development of a terahertz (THz) transmitter capable of transmitting digital data at a rate exceeding 100 gigabits per second over a single channel using the 300-gigahertz band.

- The THz band is a new and vast frequency resource expected to be used for future ultrahigh-speed wireless communications. The research group has developed a transmitter that achieves a communication speed of 105 gigabits per second using the frequency range from 290 GHz to 315 GHz.
- This range of frequencies are currently unallocated but fall within the frequency range from 275 GHz to 450 GHz.

Significance of this new discovery:

- Terahertz could offer ultrahigh-speed links to satellites, which can only be wireless. That could, in turn, significantly boost in-flight network connection speeds.
- Other possible applications include fast download from contents servers to mobile devices and ultrafast wireless links between base stations.
- Another, completely new possibility offered by terahertz wireless is high-data-rate minimum-latency communications.

Sources: [et](#).



E-pills that can monitor patient health in the offing

MIT scientists have developed a small battery that runs on stomach acids and could power next-generation ingestible electronic pills which may monitor patient health or treat diseases by residing in the gastrointestinal tract for extended periods of time.

How it operates?

Researchers took inspiration from a very simple type of voltaic cell known as a lemon battery, which consists of two electrodes – often a galvanised nail and a copper penny – stuck in a lemon.

- The citric acid in the lemon carries a small electric current between the two electrodes.
- To replicate that strategy, the researchers attached zinc and copper electrodes to the surface of their ingestible sensor.
- The zinc emits ions into the acid in the stomach to power the voltaic circuit, generating enough energy to power a commercial temperature sensor and a 900-megahertz transmitter.

Sources: ie.

Prithvi missile interceptor

India successfully test-fired what is hailed as a gen-next state-of-the-art interceptor missile from a defence base off Odisha coast recently, achieving a significant milestone in its ongoing Ballistic Missile Defence (BMD) programme.

- The homegrown anti-ballistic missile, dubbed Prithvi Defence Vehicle (PDV), travels at supersonic speed and is capable of destroying targets at a high altitude of more than 120 km in the exo-atmospheric region.

Key facts:

- Prithvi Defence Vehicle is the interceptor indigenously developed by Defence Research and Development Organisation (DRDO).
- Prithvi Defence Vehicle interceptor missile is capable of killing an incoming missile with a strike range of around 2,000 km outside the earth's atmosphere.
- India is the fifth nation in the world to have a robust Ballistic Missile Defence system. Other countries are US, Russia, Israel and China.

Sources: the hindu.

'Thubber' for use in soft, stretchable electronics

In a breakthrough for creating soft, stretchable machines and electronics, scientists have developed a novel rubber material with high thermal conductivity and elasticity.

Key facts:

- The material, nicknamed 'thubber', is an **electrically insulating composite** that exhibits an unprecedented combination of **metal-like thermal conductivity**, elasticity similar to **soft, biological tissue**, and can stretch over six times its initial length.
- The key ingredient in "thubber" is a suspension of **non-toxic**, liquid metal micro-droplets.
- The liquid state allows the metal to deform with the surrounding rubber at room temperature. When the rubber is pre-stretched, the droplets form elongated pathways that are efficient for heat travel.

**Applications:**

- This material can be used in applications such as wearable computing and soft robotics, which require mechanical compliance and stretchable functionality.
- Applications could extend to industries like athletic wear and sports medicine — think of lighted clothing for runners and heated garments for injury therapy.
- Advanced manufacturing, energy, and transportation are other areas where stretchable electronic material could have an impact.

Sources: the hindu.

IAF inducts indigenous early warning system

The IAF has formally inducted the first indigenously built Airborne Early Warning and Control System Netra developed by the Defence Research and Development Organisation.

Key facts:

- The AEW&C consists of a state-of-the-art active electronically scanned radar, secondary surveillance radar, electronic and communication counter measures, LOS (Line of Sight) and beyond-LOS data link, voice communication system and self-protection suite, built on an Emb-145 platform, having a mid-air refueling capability to enhance surveillance time.
- A complex tactical software has been developed for fusion of information from the sensors, to provide the air situation picture along with intelligence to handle identification/classification of threat.
- It has battle management functions, built in-house, to work as a network centric system of Integrated Air Command & Control System (IACCS) node.
- This system has been developed and evaluated through collaborative efforts between the DRDO and the Indian Air Force.
- The indigenous system mounted on an aircraft can track an area within 240 degrees of its sides at any given point of time.
- The United States, Russia and Israel are the other countries which have developed the technology for the system.

Sources: the hindu.

Project Loon can now predict weather systems

Researchers at Google have moved a step closer to rolling out a network of huge balloons to provide Internet connectivity to billions of people around the world, particularly those in difficult-to-reach rural areas.

Key facts:

- The Project Loon team, part of the company's X research lab, said it can now use machine learning to predict weather systems. By using machine-learning algorithms, Google thinks it has found a way to predict weather with enough accuracy to make it possible to hover balloons over a relatively small area for a long period of time.
- The advance means Google has much more control over where its balloons reach, making it possible to focus on a specific region, rather than circumnavigating the globe.

What is Project Loon?

Project Loon aims to provide internet services to the remote parts of the world. Rather than use under-ground fibre optic cables or construct cell towers to connect users, it will use balloons that float in the stratosphere. That explains the name.



- Huge helium filled balloons — about 15m wide and 12m tall — will be launched at altitudes of 20 km above the earth, above the zone where airplanes fly. The balloons can then act as cell towers to receive and transmit signals. Solar panels will power these ‘loons’ with their batteries storing up charge for night-time operation.
- The balloon’s path will be controlled by changing its altitude, so that it can optimally use wind speed and direction. The altitude will be altered by pumping or releasing air to raise or lower the balloon. As one ‘station’ moves off to a new pre-determined location, the next one moves in. Users will need a special antenna for receiving and sending radio signals to/from the balloon. They will need a connection to the internet service provider to access the web.

Sources: the hindu.

Scientists develop high-quality graphene from soybean

In a breakthrough, scientists have used the humble soybean to make the world’s strongest material graphene commercially more viable.

How was it developed?

Previously, graphene was grown in a highly-controlled environment with explosive compressed gases, requiring long hours of operation at high temperatures and extensive vacuum processing.

- Scientists at Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia have developed a novel “GraphAir” technology which eliminates the need for such a highly-controlled environment.
- The technology grows graphene film in ambient air with a natural precursor, making its production faster and simpler. With heat, soybean oil breaks down into a range of carbon building units that are essential for the synthesis of graphene.
- This technology is expected to reduce the cost of graphene production and improve the uptake in new applications.

About Graphene:

Graphene is a carbon material that is one atom thick. Its thin composition and high conductivity means it is used in applications ranging from miniaturised electronics to biomedical devices.

- These properties also enable thinner wire connections; providing extensive benefits for computers, solar panels, batteries, sensors and other devices.
- The potential applications of graphene include water filtration and purification, renewable energy, sensors, personalised healthcare and medicine, to name a few.
- Graphene has excellent electronic, mechanical, thermal and optical properties as well. Its uses range from improving battery performance in energy devices, to cheaper solar panels.

For latest on Graphene: <https://youtu.be/J0ZMi83oUjk>

Sources: toi.

Green tea-laced capacitor to power wearable devices

Scientists have used green tea compounds to develop a new flexible and compact rechargeable energy storage device which may power more comfortable wearable electronics.

How was it developed?

The researchers prepared polymer gels in green tea extract, which infuses the gel with polyphenols.



- The polyphenols converted a silver nitrate solution into a uniform coating of silver nanoparticles. Thin layers of conducting gold and poly (3,4-ethylenedioxothiophene) were then applied.
- The resulting supercapacitor demonstrated power and energy densities of 2,715 watts per kg and 22 watt-hours per kg — enough to operate a heart rate monitor, LEDs or a bluetooth module.

Sources: the hindu.

India tops charts as world's largest defense importer

As per latest report of the Stockholm International Peace Research Institute (SIPRI), India was the world's largest importer of major arms in the last five years and its overseas procurement was far greater than that of China and Pakistan.

Highlights of the report:

- As per the report, India accounted for 13% of the total global arms import between 2012–16 which is highest among all the countries.
- The report said while China was increasingly able to substitute arms imports with indigenous products, India remained dependent on weapons technology from Russia, the US, Europe, Israel and South Korea.
- It said India increased its arms imports by 43% between 2007–11 and 2012–16 and in the last four years its global procurement was far greater than those of its regional rivals China and Pakistan.
- In the last five years, the report found that trade of major weapons has increased to its highest volume since the Cold War, triggered mainly by sudden spurt in demand from Middle East and Asia.
- Saudi Arabia was the second largest arms importer in 2012–16, with an increase of 212% compared with 2007–11. Arms imports by Qatar went up by 245%.
- According to the report, Russia accounted for a 23% share of global exports in the period 2012–16 and 70% of its arms exports went to India, Vietnam, China and Algeria.
- The US was the top arms exporter in 2012–16 with a one-third share of global arms exports and its supplies rose by 21% compared with 2007–11. Almost half of its arms exports went to the Middle East, said the report.

Sources: ht.

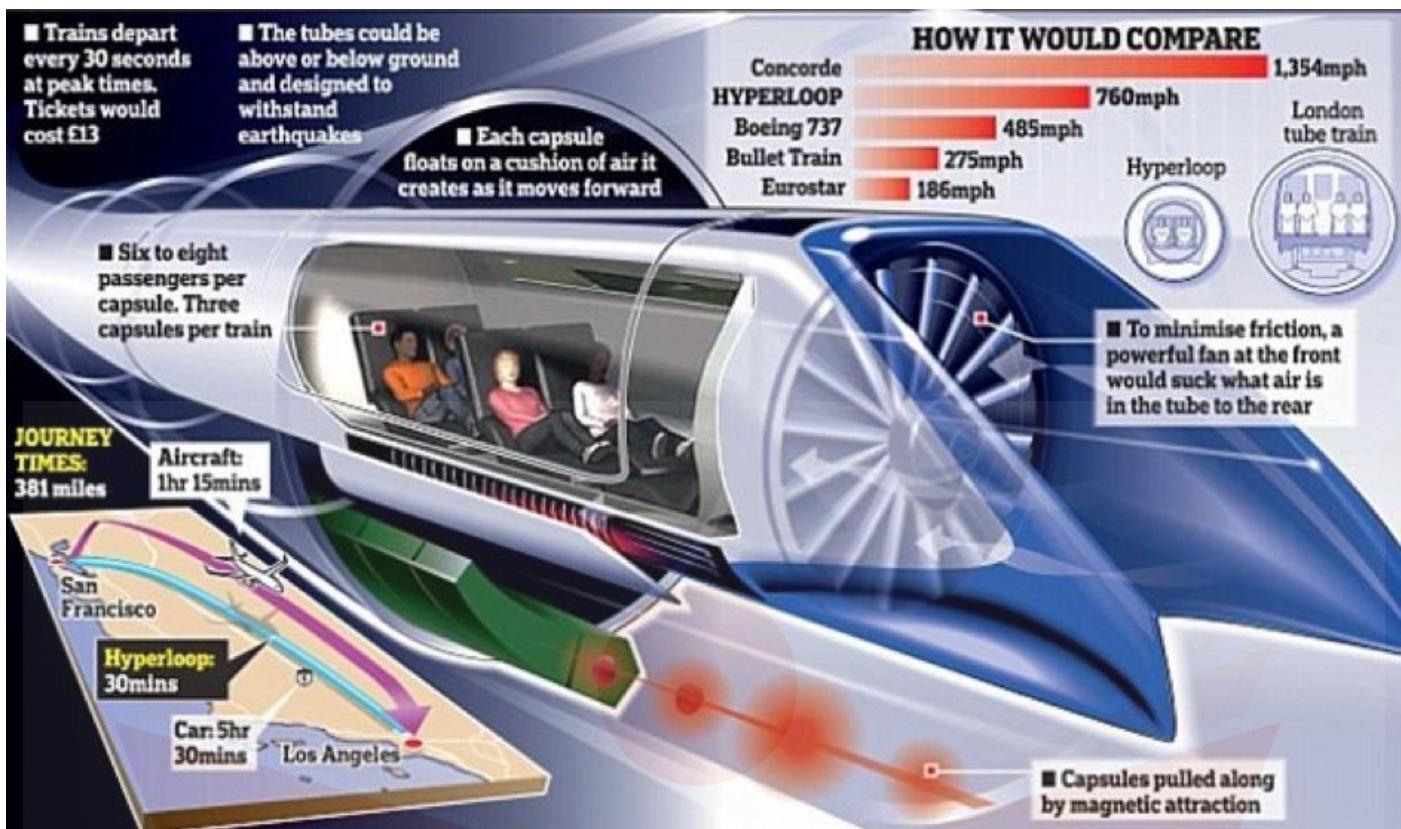
Hyperloop Transportation in talks with 5 Indian states for high-speed travel network

US-based Hyperloop Transportation Technologies (HTT) is in talks with five Indian states to build a high-speed travel network and will also raise \$100 million to invest in the country. The money will be raised exclusively for India play and from both international and domestic investors.

What is hyperloop transportation system?

It is a transportation system where a pod-like vehicle is propelled through a near-vacuum tube connecting cities at speeds matching that of an aircraft.

The hyperloop concept is a brainchild of Tesla founder Elon Musk. US-based Hyperloop Transport Technology (HTT) claimed it costs \$40 million per kilometre to build a hyperloop system while building a high-speed train line would cost almost twice. The hyperloop system is being designed to transport passengers and freight.



How it operates?

In hyperloop transportation, custom-designed capsules or pods are expected to zip smoothly through continuous steel tubes which are held at partial vacuum. The pod which sandwiches the passenger compartment between an air compressor upfront and a battery compartment in the rear is supported by air caster skis at the bottom. The skis float on a thin layer of air provided under high pressure, eliminating rolling resistance and allowing for movement of the pods at high speeds. These capsules are expected to be driverless with estimated speeds of 1,000 km/h.

Linear induction motors that are placed along the tube control the speed of the pod. Electronically-assisted acceleration and braking determines the speed of the capsule.

Sources: the hindu.

Paper 3 Topic: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

NASA telescope spots most extreme blazars yet

NASA's Fermi Gamma-ray space telescope has identified the farthest gamma-ray blazars, a type of galaxy whose intense emissions are powered by super-sized black holes.

Key facts:

- These luminous galaxies, known as blazars are the most distant ever detected and are expected to shed light on the cosmic evolution of black holes.
- Blazars constitute roughly half of the gamma-ray sources detected by Fermi's Large Area Telescope (LAT).
- Astronomers think their high-energy emissions are powered by matter heated and torn apart as it falls from a storage, or accretion, disk toward a supermassive black hole with a million or more times the sun's mass.



- Two of the blazars that the team detected boast black holes of a billion solar masses or more.

About Blazars:

Blazars are among the brightest objects in the universe thanks to emissions powered by supersized black holes. The most distant of the newly discovered blazars started to emit their light when the universe was just 1.4 billion years old. Previously, the most distant blazars detected by Fermi emitted their light when the universe was about 2.1 billion years old.

Blazars are similar to all active galaxies, acquiring energy from matter falling toward a central supermassive black hole. A small part of this infalling material becomes redirected into a pair of particle jets, which blast outward in opposite directions at nearly the speed of light.

Sources: et.

TRAI recommends shutting down of analog transmission by 2023

The broadcast regulator Trai has recommended introduction of digital terrestrial transmission for broadcast services in a phased manner and complete shut down of analog transmission by end of 2023.

- This is a move that may lead a combination of multiple DTT transmitters at a location, which can provide a rich bouquet of SDTV, HDTV, UHTV, mobile TV channels, radio service and other value added services.

Background:

At present, terrestrial TV broadcasting in India is under the exclusive domain of Doordarshan (Prasar Bharati), the Public Service Broadcaster and it is predominantly analog.

While a large number of TV channels are available to the consumers through various delivery platforms such as DTH, Cable TV, IPTV, HITS etc, the existing terrestrial TV platform provides only a few channels which do not offer a value proposition to the viewers.

Recommendations made by TRAI:

- Private players should be permitted to provide DTT services along with the public service broadcaster.
- Public broadcaster may be permitted to operate maximum three transmitters at a given location out of which one may be exclusively used for provision of mobile TV services.
- Private broadcasters may be permitted to operate maximum four transmitters (with spectrum capacity of 8 MHz each) at a given location subject to availability of spectrum.
- Maximum number of DTT providers may be capped at five (one public broadcaster and four private broadcasters) as per availability of spectrum.
- Trai has recommended that DTT should be deployed in metros by December 2019 in phase 1, cities having more than 10 lakh population as per Census 2011 should be covered by December 2021 and rest of India by December 2023.

Advantages of DTT:

- There are a number of advantages of digital terrestrial television.
- The platform is content agnostic and can be adapted to handle new forms of content.



- Frequency use is much more efficient, allowing for the transmission of 20 to 30 SD channels in the spectrum occupied by a single television channel in an analog signal.
- DTT offers better quality of images and sound as compared to analog signals.
- A combination of DTT transmitters at a single location can provide consumers with a range of content options, including radio and video feeds of various qualities.
- The DTT transmitters have lower power requirements than traditional analog transmitters. The signals can be received easily by moving vehicles and mobile phones.
- DTT transmitters can facilitate mobile data offload services, for better use of available resources.

Practice worldwide:

Luxembourg was the first country to shift from analog TV in 2006. Countries in the Americas and Europe followed suite. China is expected to shift by 2018, and Brazil has plans to shut off analog TV towers by 2023.

Sources: the hindu.

NASA's Juno spacecraft completes fourth flyby of Jupiter

NASA's Juno spacecraft recently made its fourth flyby over Jupiter's mysterious cloud tops. At the time of its closest approach (called perijove), Juno was at about 4,300 km above the planet's cloud tops.

About Juno:

Juno was launched in 2011 on a mission to study Jupiter's composition and evolution. It's the first spacecraft to orbit Jupiter since Galileo. Juno spacecraft successfully entered Jupiter's orbit recently, after a five year journey.

- The primary goals of the \$1.1 billion mission are to find out whether Jupiter has a solid core, and whether there is water in the planet's atmosphere — something that may not only provide vital clues to how the planet formed and evolved, but also to how the solar system we live in came into existence.
- At the end of its mission, Juno will dive into Jupiter's atmosphere and burn up — a "deorbit" maneuver that is necessary to ensure that it does not crash into and contaminate the Jovian moons Europa, Ganymede and Callisto.

Other details:

- The Juno spacecraft – named after the Roman goddess and wife of Jupiter – is packed with nine instruments capable of peering into the planet's heart.
- It will fly 2,600 miles above the cloud tops – 3,000 miles closer to the surface than any other mission has ever achieved.
- Juno became the first spacecraft to cruise this far out into the solar system powered solely by the sun, beating Europe's Rosetta spacecraft. A trio of massive solar wings sticks out from Juno like blades from a windmill, generating 500 watts of power to run its nine instruments.
- Juno, built by Lockheed Martin, is an armored spacecraft – its computer and electronics are locked in a titanium vault to shield them from harmful radiation. Even so, Juno is expected to get blasted with radiation equal to more than 100 million dental X-rays during the mission.

Sources: et.



International IP Index

The 5th Annual International IP Index was recently released. The index is part of the report released by the U.S. Chamber of Commerce's Global Intellectual Property Center (GIPC).

Highlights of the report:

- According to the rankings, India continues to lag behind the rest of the world in IP protections, coming in 43rd place out of 45 countries.
- Out of a total of 35 points, India scores a meagre 8.75, falling significantly behind the median score of 15.39, and average score of India's regional neighbours, 17.64.
- Only two countries were ranked below India – Pakistan (44th) and Venezuela (45th). The U.S., the U.K., Germany, Japan, Sweden, France, Switzerland, Singapore, South Korea and Italy completed the top 10 ranks. Among the BRICS countries China was ranked 27th, South Africa (33rd), Brazil (32nd) and Russia (23rd).

Challenges before India:

In addition to its anaemic IPR policy, the report cited challenges with the scope of patentability for computer-implemented inventions, Section 3(D) of the Indian Patent Act, and the recent High Court of Delhi decision regarding photocopying copyrighted content.

- Also, according to the report, India's key areas of weakness includes that "overall, National IPR Policy does not address fundamental weaknesses in India's IP framework, limited framework for protection of life sciences IP, patentability requirements being outside international standards and lengthy pre-grant opposition proceedings in place."
- Another of India's weaknesses was also that it had "previously used compulsory licensing for commercial and nonemergency situations, limited participation in international IP treaties."

Way ahead:

Although India has made incremental progress, the government needs to build upon the positive rhetoric of its IPR policy with the substantial legislative reforms that innovators need. Reforms can improve its reputation as a destination for doing business, foreign businesses' ability to invest in and "Make in India," and India's own innovative industries.

Besides, India should act to address issues that impact Indian innovation, such as software patentability, life sciences patents, copyright protection and enforcement, and trade secrets protection.

Sources: [toi](#).

ISRO launches record 104 satellites at Sriharikota

The Indian Space Research Organisation (ISRO) has successfully launched a record 104 satellites into space on a single rocket from Sriharikota in Andhra Pradesh.

Significance of this launch:

With the successful launch, India did something no country has done before. Its launch of 104 satellites from a single rocket was a world record most satellites launched at the same time from a single rocket. The country that comes second to us in this aspect is Russia, who is far behind with a maximum of 37 satellite launches from a single rocket.

Key facts:

- Of the total earth-observation satellites, three are Indian, 88 are from the US and the rest from Germany, Israel, Kazakhstan, the Netherlands, Switzerland and the United Arab Emirates.
- This PSLV-XL rocket launch is ISRO's 15th space mission. ISRO has a very impressive success rate in terms of space programmes as it hasn't failed even once since 2010. The XL version of the PSLV was earlier used in India's Mars Orbiter Mission (MOM) after it had debuted in 2008 in India's first attempt to reach moon, Chandrayan-I.
- India had earlier made a national record in June 2016 after it had successfully rocketed 20 satellites at one go, including 13 from the United States of America.

Sources: the hindu.

Clouds over Maharashtra will have a silver iodide lining

During monsoon 2017, weather scientists will fly airplanes loaded with silver iodide over clouds hovering above Solapur, Maharashtra and begin a three-year investigation into an old question: does cloud seeding produce sufficient rain?

- The ₹250-crore programme, coordinated by the Indian Institute of Tropical Meteorology, will be the first controlled experiment to quantify the extent to which clouds form water drops large enough to make rain.

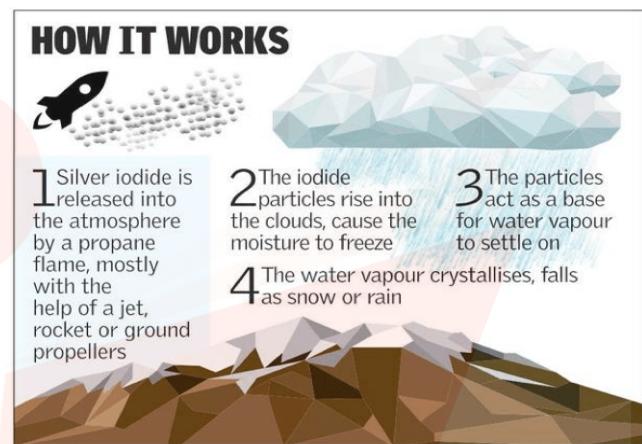
Background:

Maharashtra has frequently toyed with the idea of cloud seeding because of the frequency of droughts over the Vidarbha region. Seeding involves spraying chemicals into clouds.

How is it done?

For their experiment, scientists will fly two aircraft and spray dry ice and silver iodide on 100 clouds and compare them with 100 unseeded clouds. Ground radar will track the clouds and verify which ones contributed rain.

Sources: the hindu.



JPL's Spitzer Space Telescope Hears Stellar 'Heartbeat' from Planetary Companion

JPL's Spitzer Space Telescope has detected unusual pulsations in the outer shell of a star called HAT-P-2. Scientists' best guess is that a closely orbiting planet, called HAT-P-2b, causes these vibrations each time it gets close to the star in its orbit.

- The star's pulsations are the most subtle variations of light from any source that Spitzer has ever measured. A similar effect had been observed in binary systems called "heartbeat stars" in the past, but never before between a star and a planet.

Background:

Weighing in at about eight times the mass of Jupiter, HAT-P-2b is a relatively massive planet. It's a "hot Jupiter," meaning an exoplanet that is extremely warm and orbits its star tightly. But this hot Jupiter is tiny in relation to its



host star, which is about 100 times more massive. That size difference makes the pulsation effect all the more unusual (For comparison, our sun is about 1,000 times more massive than Jupiter).

- Known to the exoplanet community since 2007, HAT-P-2b was initially interesting to astronomers because of its “eccentric,” or elliptical orbit. The planet spends most of its time relatively far from the star, but comes around for a close encounter every 5.6 days. Those are indeed hot dates for this planet, as it receives as much as 10 times the amount of light per unit area at closest approach than at its farthest point in the orbit.
- Each time the planet swings around for that close approach, it appears to give its star a little “kiss” as the gravitational forces of these two bodies interact. The star, in turn, beats like a heart as the planet travels around in its orbit again.

About Spitzer Space Telescope:

NASA’s Spitzer Space Telescope was launched in 2003 to study the universe in the infrared. It is the last mission of the NASA Great Observatories program, which saw four specialized telescopes (including the Hubble Space Telescope) launched between 1990 and 2003.

- The goal of the Great Observatories is to observe the universe in distinct wavelengths of light. Spitzer focuses on the infrared band, which normally represents heat radiation from objects. The other observatories looked at visible light (Hubble, still operational), gamma-rays (Compton Gamma-Ray Observatory, no longer operational) and X-rays (the Chandra X-Ray Observatory, still operational.)
- Spitzer’s highly sensitive instruments allow scientists to peer into cosmic regions that are hidden from optical telescopes, including dusty stellar nurseries, the centers of galaxies, and newly forming planetary systems.
- Spitzer’s infrared eyes also allows astronomers see cooler objects in space, like failed stars (brown dwarfs), extrasolar planets, giant molecular clouds, and organic molecules that may hold the secret to life on other planets.

Sources: the hindu.

NASA discovers 7 Earth-like planets

US space agency NASA has announced that scientists researching outer space have found the existence of another ‘solar system’ – seven Earth-like planets orbiting a small star in galaxy 40 light years away – opening up the most promising hunting ground so far for life beyond.

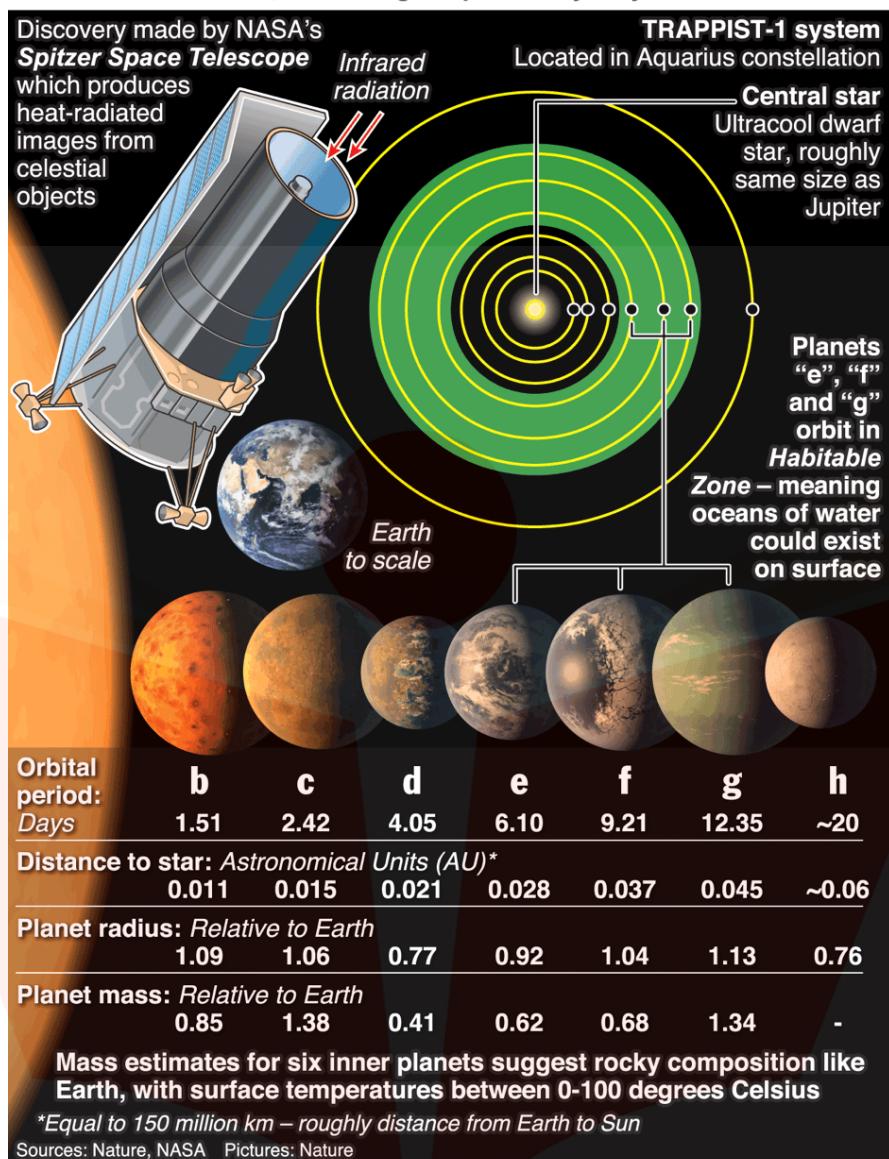
- The Spitzer Space Telescope has found that the planets are as large as Earth and at least three of them are in a “habitable zone”. Almost all of them are rocky and three are likely to have water. Because they are located outside of our solar system, these planets are scientifically known as exoplanets.

Key facts:

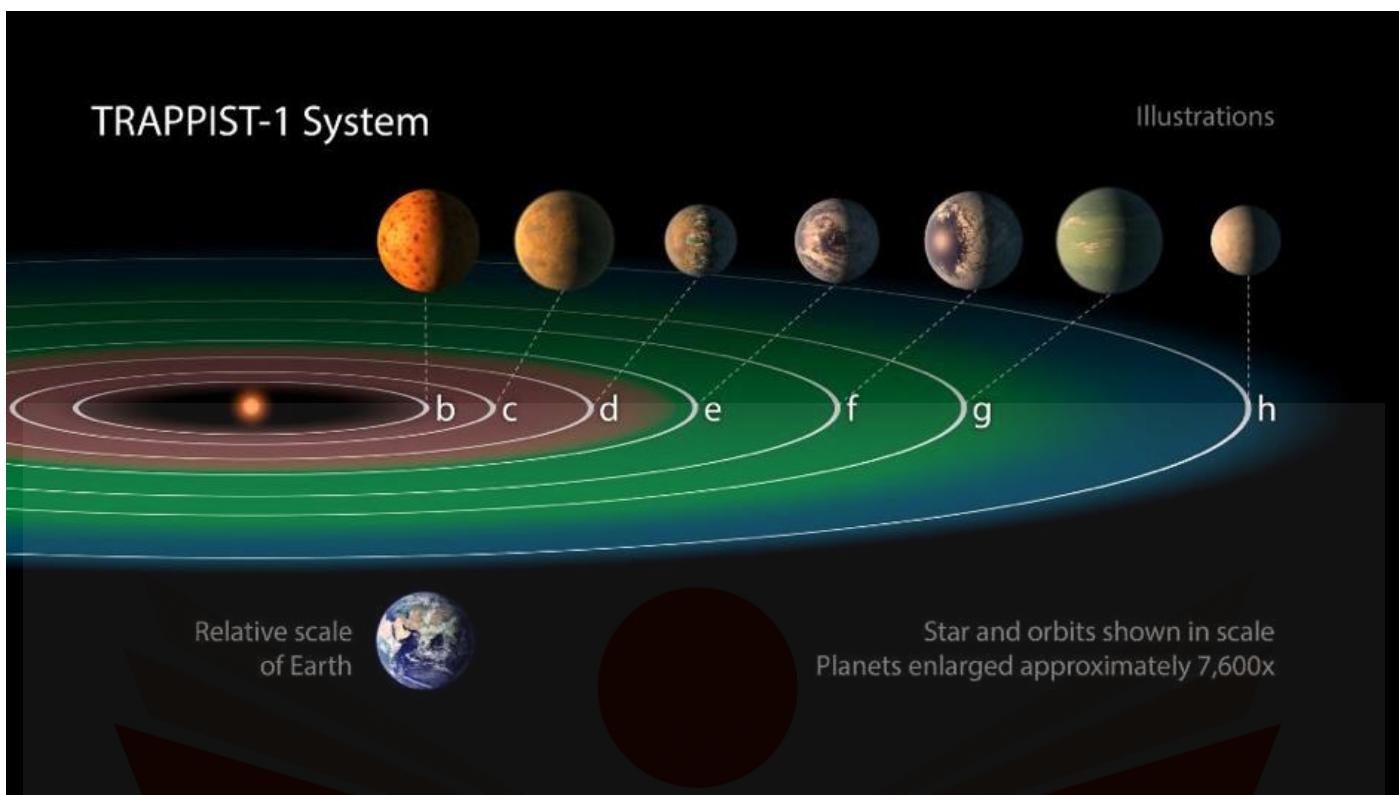
- This star system is less than 40 light-years from Earth, or 235 trillion miles away, in the constellation Aquarius.
- At the hub is a small, faint star known as Trappist-1. Seven planets circle Trappist-1, with orbits ranging from 1 ½ to 20 days.
- If Trappist-1 were our sun, all these planets would fit inside the orbit of Mercury. That’s how close they are to their star and why their orbits are so short.
- Three of the planets are smack dab in the so-called habitable zone, also known as the Goldilocks zone, where conditions are just right for water and life to flourish — not too much and not too little stellar energy. The four other planets are tantalizingly close to the Goldilocks zone— so close that they, too, could harbor water and potentially life.

Seven worlds discovered in nearby star system

Astronomers have discovered seven Earth-sized planets orbiting a star just 40 light-years away. At least three of them could harbour oceans of water, increasing the possibility they could host life



- The ultracool star at the heart of this system would shine 200 times dimmer than our sun, a perpetual twilight as we know it. And the star would glow red — maybe salmon-coloured, researchers speculate.
- Unlike Earth, which rotates on its axis, the planets are “tidally locked to the star.” This means that one side of the planet has only day, and one side has only night. It also means the weather conditions are unlike what we experience on Earth.



Sources: ht.

Paper 3 Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

World Wetlands Day being celebrated today at Bhoj Wetlands, Bhopal

This year World Wetland Day is being celebrated by centre in collaboration with the Government of Madhya Pradesh at Bhoj Wetlands, Bhopal, which is one of the 26 Ramsar sites that India has designated under the Ramsar Convention.

- Also, all the State Governments have been requested to celebrate the World Wetland Day in their respective States in a befitting manner.

Theme:

The theme of World Wetlands Day for 2017 is '**Wetlands for Disaster Risk Reduction**'. This theme has been selected to raise awareness on the vital roles of healthy wetlands in reducing the impacts of extreme events on communities and in helping to build resilience.

About World Wetlands Day:

World Wetlands Day is celebrated on **February 2** each year to mark the Day the Convention on Wetlands was adopted in the Iranian City of Ramsar in 1971. India is a party to the Convention since 1982 and committed to the Ramsar approach of wise use of wetlands.

About Ramsar convention:

The Ramsar Convention is an international treaty for the conservation and wise use of wetlands. It is named after the Iranian city of Ramsar, on the Caspian Sea, where the treaty was signed on 2 February 1971. Known officially as 'the



Convention on Wetlands of International Importance especially as Waterfowl Habitat' (or, more recently, just 'the Convention on Wetlands'), it came into force in 1975.

Montreux Record:

Montreux Record under the Convention is a register of wetland sites on the List of Wetlands of International Importance where changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference.

It is maintained as part of the Ramsar List. The Montreux Record was established by Recommendation of the Conference of the Contracting Parties (1990). Sites may be added to and removed from the Record only with the approval of the Contracting Parties in which they lie.

Sources: pib.

Committee of Secretaries to take up fleet policy for nod this week

The Committee of Secretaries (CoS) will take up for approval the fleet modernisation policy that proposes to remove old and polluting trucks and other commercial vehicles bought before April 2005 from the roads.

Background:

The fleet modernisation proposal mooted by the roads transport and highways ministry has been awaiting clearance for almost a year now.

Key facts:

- Under the proposed policy, commercial vehicles bought before April 2005 will be eligible for incentives if replaced by new ones. According to government estimates, the programme may help replace several million vehicles with less polluting ones, thereby reducing vehicular emission.
- The policy proposes three incentives for the vehicles scrapped — half the regular excise duty at the time of purchase of new vehicle, fair value for the scrap and discounts from automobile manufacturers. These incentives are likely to cut the cost of a new vehicle for the buyer by 15% on an average.
- The policy recommends complete excise exemption for state transport buses to encourage public transport to shift to newer and higher capacity buses which will also help de-congest roads.
- Under the plan, those opting to scrap old commercial vehicles will have to deposit documents relating to the vehicle at the recycling centre. After verification, the owner will get a certificate and the price for the scrap. He has to provide certificate to the dealer while buying the new vehicle to avail of the discount.
- According to the ministry, the policy has the potential to reduce vehicular emission by 25% and save oil consumption by 3.2 billion litres a year. The reduction in oil consumption by new vehicles will help save nearly Rs 7,000 crore in oil import.

Sources: et.

Committee of Secretaries setup to speed up the implementation of Namami Gange Programme

The government has announced setting up of a Committee of Secretaries to speed up the implementation of Namami Gange Programme. The Committee will meet at least once in a fortnight.

Namami Gange Programme:

The Union government approved “Namami Gange” Program in May 2015. It integrates the efforts to clean and protect the Ganga River in a comprehensive manner.

Focus of the programme:

Among other things, the programme will focus on pollution abatement interventions namely Interception, diversion & treatment of wastewater flowing through the open drains through bio-remediation / appropriate in-situ treatment / use of innovative technologies.

Implementation:

- The program would be implemented by the National Mission for Clean Ganga (NMCG), and its state counterpart organizations i.e., State Program Management Groups (SPMGs).
- In order to improve implementation, a three-tier mechanism has been proposed for project monitoring comprising of a) High level task force chaired by Cabinet Secretary assisted by NMCG at national level, b) State level committee chaired by Chief Secretary assisted by SPMG at state level and c) District level committee chaired by the District Magistrate.
- The program emphasizes on improved coordination mechanisms between various Ministries/Agencies of Central and State governments.
- The programme also focuses on involving the States and grassroots level institutions such as Urban Local Bodies and Panchayati Raj Institutions in implementation.

Sources: pib.

Nilambur teak set to enter elite club of products with GI tag

Nilambur teak, internationally known for its superior quality and elegant appearance, will soon be added to the list of Kerala produces with the Geographical Indication (GI) tag.

- Nilambur teak is popularly known as the Mecca of teak.

GI tag:

The GI tag is an indication which is definite to a geographical territory. It is used for agricultural, natural and manufactured goods. For a product to get GI tag, the goods need to be produced or processed or prepared in that region. It is also essential that the product has special quality or reputation.

In India, GI registration is governed by the Geographical Indications of goods (Registration and Protection) Act, 1999 which came into force in September 2003. Darjeeling tea was the first product to accorded with GI tag in India.

Sources: the hindu.

India's air rivals China's as deadliest in the world: Study

According to a new study of global air pollution, India's air pollution levels are surpassing China's as the world's deadliest. The study was conducted by the Health Effects Institute and the Institute for Health Metrics and Evaluation.

Important observations made by the report on India:

- India's notoriously poor air quality causes nearly 1.1 million premature deaths every year, almost on a par with China.



- India has recorded a nearly 50% increase in premature deaths linked to fine airborne particles known as PM2.5 between 1990 and 2015.
- India and China, the two Asian giants accounted for more than half of all global deaths related to PM2.5 exposure.
- India has undergone a rapid economic transformation in the past two decades but burning coal for energy and torching farmland to plant new crops has seen pollution rocket.
- India and neighbouring Bangladesh have experienced the steepest increases in pollution since 2010 and now have the highest PM2.5 concentrations in the world.
- Experts blamed lack of proactive policies for the rising air pollution.

Way ahead:

The report asks the government to undertake sustained public policy initiatives to reduce the pollution.

Sources: the hindu.

Deep sea mining gets a second look

The risk of running out of rare earth metals that are essential to modern technology has led to a surge in interest in mining the deep seas.

Need for deep sea mining:

Demographic growth and the acceleration of technological innovations in the past 40 years have doubled the quantity of minerals extracted worldwide, leading to shortages of certain key metals, according to a recent UN report.

If global development proceeds at its current pace, traditional land-based supply of resources may be challenged to meet demand. This uncertainty highlights the importance of considering deep-sea mining, even though the process involves environmental risks.

Concerns:

Fears have also mounted about the environmental impact of disturbing vast areas of the pristine ocean floor.

Way ahead:

Waters deeper than 200 meters make up 65% of the world's oceans, and are vulnerable to human activities. Given the risks to fragile ecosystems, a new international approach to managing mineral deposits should be put in place.

Sources: the hindu.

Corbett gets nod to kill poachers

In a stringent anti-poaching measure, authorities at Corbett Tiger Reserve (CTR) have issued shoot-at-sight orders "to prevent killing of big cats in the reserve".

- Besides the shoot-at-sight orders, various other steps are being taken by the authorities, including barring villagers in the vicinity from entering the protected area and subjecting visitors to the park to extensive frisking.

Background:

Incidents of poaching of tigers and leopards have been on the rise in Uttarakhand. The hill state reported seizure of 22 leopard skins and bones in 2016, according to a report. Numbers are equally alarming when it comes to tigers. Between 2012 to March 14, 2016, 50 tiger deaths were reported from CTR, out of which 13 big cats were killed by poachers. In March 2016, the special task force (STF) of Uttarakhand police in the biggest haul of its kind seized the skins of five tigers from a gang of poachers.

**About Corbett tiger reserve:**

Corbett National Park is situated in the foothills of the Sub- Himalayan belt in Nainital districts of Uttarakhand state in India.

- Established in the year 1936 as Hailey National Park, Corbett has the glory of being India's oldest and most prestigious National Park. It is also being honored as the place where Project Tiger was first launched in 1973. This unique tiger territory is best known as the father who gave birth of the Project Tiger in India to protect the most endangered species and the Royal of India called Tigers.
- Corbett National Park covers an area of 521 sq. km and together with the neighboring Sonanadi Wildlife Sanctuary and Reserve Forest areas, forms the Corbett Tiger Reserve.
- Corbett is one of the richest bird regions of the Country and has been declared as an 'Important Bird Area' (IBA) by Birdlife International.

Sources: the hindu.

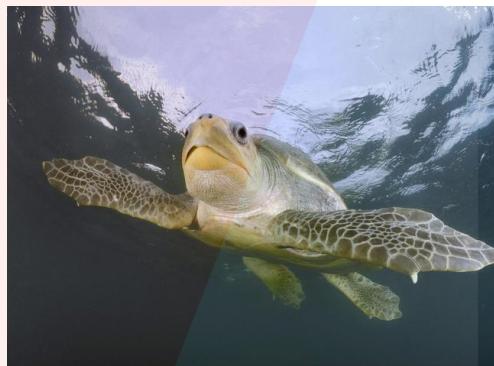
Record olive ridley nesting baffles wildlife experts

A record-breaking mass nesting by 3.8 lakh endangered olive ridley turtles (*Lepidochelys olivacea*) took place at the Rushikulya rookery coast in Ganjam district of Odisha in February 2017. Interestingly, no mass nesting had taken place at the site a year ago.

- It is believed that several environmental factors, including chemical factors like salinity of the beach and the sea near the coast, may have prompted these marine reptiles to give the coast a miss in 2016.

Background:

According to experts, most mass nesting sites of olive ridley turtles in the world are located near river mouths, where salinity is low. However, a lot still needs to be explored with regard to the influence of the salinity factor as not much is known about the relation between mass nesting by these endangered turtles and coastline salinity.

**About Olive Ridley turtles:**

Also known as the Pacific ridley sea turtle, Olive turtles are a medium-sized species of sea turtle found in warm and tropical waters, primarily in the Pacific and Indian Oceans.

- They are best known for their behavior of synchronized nesting in mass numbers.
- The olive ridley is classified as Vulnerable according to the International Union for Conservation of Nature and Natural Resources (IUCN), and is listed in Appendix I of CITES.
- The Convention on Migratory Species and the Inter-American Convention for the Protection and Conservation of Sea Turtles have also provided olive ridleys with protection, leading to increased conservation and management for this marine turtle.

Sources: the hindu.

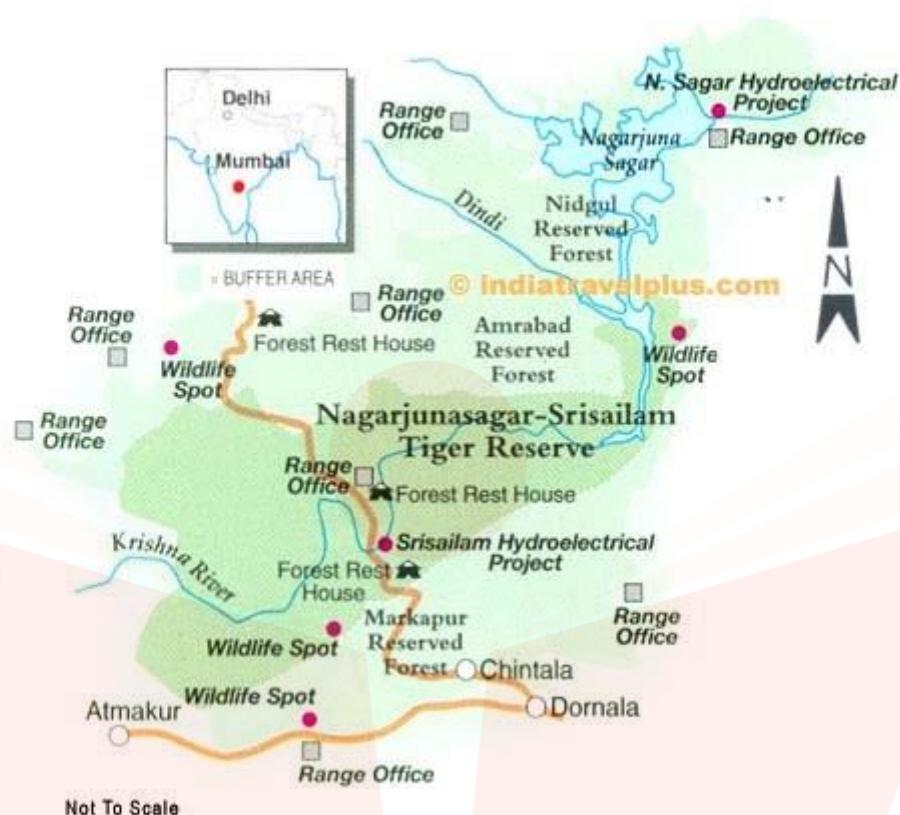
Nod for road widening in wildlife sanctuary opposed

Wildlife conservationists have strongly criticised the National Board for Wildlife (NBWL) for granting permission to the widening of a road that falls in the buffer zone of the Nagarjuna Sagar- Srisailam Tiger Reserve and also the Ecologically Sensitive Zone of the Gundla Brahmewaram Wildlife Sanctuary.

Background:

The NBWL gave permission for widening of the Nandyala-Atmakur road in Kurnool district from the single lane to double lane at its most recent meeting held in New Delhi.

State: Andhra Pradesh


About Nagarjuna Sagar – Srisailam Tiger Reserve:

Located in Telangana, Nagarjunsagar-Srisailam Tiger Reserve is the largest tiger reserve in India. The multipurpose reservoirs, Srisailam and Nagarjunasagar, are located in the reserve. The area consists mostly of the Nallamala Hills. The hill ranges contain number of plateau of which Amrabad, Srisailam, Peddacheruvu, Sivapuram, Nekkanti are noteworthy.

- The Krishna river cuts its basin almost 200 m (660 ft) deep over a distance of 130 km (81 mi) through the reserve.
- It is home to a dazzling array of wild animals. In addition to the Bengal Tiger, which is the apex predator, many other species like leopard, rusty-spotted cat, sloth bear, wild dog, pangolin, mouse deer, Chousingha, Mugger Crocodiles, Indian Rock Python, and innumerable varieties of birds are found here.

Sources: the hindu.

Arctic vault receives new seed deposits

Nearly 10 years after a “doomsday” seed vault opened on an Arctic island, some 50,000 new samples from seed collections around the world, including India, have been deposited in the world’s largest repository built to safeguard against wars or natural disasters wiping out global food crops.



- The latest specimens sent to the bank included more than 15,000 reconstituted samples from an international research centre that focuses on improving agriculture in dry zones. The specimens consisted of seed samples for some of the world's most vital food sources like potato, sorghum, rice, barley, chickpea, lentil and wheat.
- The newly deposited 50,000 samples were from seed collections in Benin, India, Pakistan, Lebanon, Morocco, Netherlands, the US, Mexico, Bosnia and Herzegovina, Belarus and Britain.

About the seed vault:

The Svalbard Global Seed Vault, a gene bank built underground on the isolated Norwegian island in a permafrost zone some 1,000 kilometres from the North Pole, was opened in 2008 as a master backup to the world's other seed banks, in case their deposits are lost.

- It is located on the Svalbard archipelago between mainland Norway and the North Pole.
- Conservationist Cary Fowler, in association with the Consultative Group on International Agricultural Research (CGIAR), started the vault to preserve a wide variety of plant seeds that are duplicate samples, or "spare" copies, of seeds held in gene banks worldwide.
- The seed vault is an attempt to insure against the loss of seeds in other genebanks during large-scale regional or global crises. The seed vault is managed under terms spelled out in a tripartite agreement between the Norwegian government, the Global Crop Diversity Trust (GCDT) and the Nordic Genetic Resource Center (NordGen).
- The Norwegian government entirely funded the vault's construction. Storing seeds in the vault is free to end users, with Norway and the Global Crop Diversity Trust paying for operational costs.
- Depositors will retain ownership rights over the seeds sent to the facility. The boxes with seeds will be sealed by the depositors and will not be distributed to or given access to by anyone other than the depositors.
- Norwegian law, promulgated prior to the establishment of the Seed Vault and intended therefore to apply more generally to research and use of genetically modified organisms in Norway, effectively prohibits importation of genetically modified seeds and their storage in Svalbard.

Sources: the hindu.

Though the net tightens, India remains hub for turtle trade

According to a report, India continues to bear the ignominy of being the source of the illegal trade and export of tortoises and freshwater turtles (TFT).

Key facts:

- The detection of a staggering 58,442 smuggled amphibians over five years, demonstrates the persistence of the illegal trade despite increasing enforcement.
- The study finds that 14 species were being commercially harvested — nine more in 1993, when a similar study was conducted.
- Overall, there were 223 reported seizures by authorities between 2011-15. Most of the seizures were in India, while the rest were from Bangladesh, Thailand and China. Of the amphibians seized, the turtles were established as having come from India.
- Within India, the Gangetic Plains accounted for 46% of all seizures, with Lucknow and Kanpur being major hubs. Researchers said this was linked to tightening of the enforcement (including an active Special Task Force) in Uttar Pradesh and the Gangetic belt. There is a tradition of turtle poaching in this area given the diversity of TFT population along the river.
- Apart from the Ganga and its tributaries, TFTs have been poached in rivers of the Western Ghats and, in smaller numbers, in the Eastern Ghats. The cities of Mumbai, Chennai and Kolkata have seen large-scale seizures, suggesting accumulation before export, the researchers said.



- While domestic consumption of turtle meat in West Bengal and Bangladesh continues, it is the international export to south-east Asian countries and China that rake in profits for smugglers.

Why there is a surge in trade of turtles?

While enforcement has become stricter, the ease of transporting thousands of turtle hatchlings in bags has led the trade to continue unhindered. The species are poached by fishermen in streams, ponds and rivers. Very rarely are the traded species bred — they are mostly taken from the wild. It reaches middlemen who have strong networks to smuggle them across international borders. Turtles and tortoises are taken in trucks, buses and trains towards Bangladesh or through airports to south-east Asia.

Shell shock

About 58,442 live tortoises and fresh water turtles were seized between 2011-15 in India



SPECIES UNDER THREAT

- 28 species of tortoises and fresh water turtles are found in India
- Of these, 14 are targeted, 10 of them listed as 'threatened species' in the IUCN's red list

ILLEGAL TRADE

- Seven vulnerable and three endangered species are being poached and exported
- Most are exported to south-east Asia. The Gangetic plains account for 46% of all seizures

VULNERABLE*

- Crowned river turtle
- Indian star tortoise
- Travancore turtle
- Indian-eyed turtle
- Gangetic softshell
- Tricarinate hill turtle
- Spotted pond turtle

ENDANGERED*

- Indian softshell
- Cochin forest cane
- Elongated tortoise

* INTERNATIONAL UNION FOR CONSERVATION OF NATURE

Sources: the hindu.

Two endangered plant species spotted

In a major breakthrough in eco-conservation, forest officials in Munnar have spotted two critically endangered impatiens plant species on the peripheries of the Eravikulam National Park.

Key facts:

- The newly discovered species include- Impatiens Mankulamensis and Impatiens Panduramgani. They are included in the critically endangered category of IUCN.
- Impatiens, also called jewel weeds, are seen in pristine forests where moisture content and relative humidity are high. The Eravikulam National Park and the Mankulam forest division are surrounded by sholas.
- The plant normally flowers in the rainy season of July to October. The flowers are white in colour with a pink border.

Sources: the hindu.

Panel submits report on Tiruvannamalai project

A two-member expert committee which went into the Tiruvannamalai Girivalam Path Widening Project has submitted its report to the National Green Tribunal's (NGT) Southern Bench.

Key facts:

- In its report, the committee indicated that the flora and fauna in the area may not be affected much by the project. It further said that the Highways Department shall undertake maintenance of the odais/channels leading to the receiving water bodies lying within 20m on either side of the road as part of the project cost.



- As for the feasibility of earmarking a portion of the existing road for movement of emergency vehicles, the report says 5m wide on the left side of the road on stretches 2, 3 and 4 could be dedicated exclusively for the two-way movement of emergency vehicles.
- The committee has recommended that the Highways Department may be permitted to undertake its work with various conditions in all stretches of the project.

About the project:

The Girivalam is the path taken by devotees of the famed Arulmigu Arunachaleswarar Temple in Tiruvannamalai district in Tamil Nadu. Implemented at a cost of Rs.65 crore, the widening project is creating a lane of 7 to 10 m width for pedestrians/pilgrims who take up circumambulation of the holy hill by walk.

Sources: the hindu.

Paper 3 Topic: Disaster and disaster management.

NDMA prepares States to deal with Heat Wave 2017

A national workshop on Preparation of **Heat Wave Action Plan** was recently organised in Hyderabad by NDMA. Discussions were held with all stakeholders resolving to work towards mitigating the adverse impact of the imminent heat wave this year.

- The workshop was organised by National Disaster Management Authority (NDMA) in collaboration with the Government of Telangana.

About heatwaves:

The Indian Meteorology Department (IMD) defines a heatwave as an excess of five to six degrees C over the maximum daily temperature (over a 30-year period) of less than 40 degree C or an excess of four to five degree C over a normal historical maximum temperature of over 40 degree C.

A heat wave is a combination of **hot weather and humidity** for a prolonged period. It is an extended period of very high summer temperature with the potential to adversely affect communities.

What are the possible health hazards due to heat wave?

According to the National Health Service based in UK, **heat stroke** and **heat exhaustion** are the two major risks posed by high-temperature conditions. Continuous and constant exposure to high temperatures could result in nausea and heat cramps, resulting in rapid rise of the body temperature. Dehydration (absence of adequate water within the body) could also aid in heat exhaustion. Headaches, dizziness and nausea are some of the symptoms.

Sources: pib.

Paper 3 Topic: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.

RBI to set up panel on strengthening cyber security

In a bid to strengthen cyber security system, the Reserve Bank of India (RBI) has decided to set up an inter-disciplinary panel on cyber security to examine various threats and suggest measures to deal with it.

**Background:**

While banks have taken steps to strengthen their defences, the diverse and ingenious nature of recent cyber-attacks necessitates an ongoing review of the cyber security landscape and emerging threats. Towards this end, RBI decided to set up an inter-disciplinary Standing Committee on cyber security.

Role of the committee:

- The panel will review the threats inherent in the existing or emerging technology on an ongoing basis.
- Besides, it will also study adoption of various security standards/protocols and also act as interface with stakeholders.
- The committee will also suggest appropriate policy interventions to strengthen cyber security and resilience.

Cyber security threats in India:

In the biggest-ever breach of debit card data, as many as 32.14 lakh cards were compromised last year. 641 customers across 19 banks were duped of Rs. 1.3 crore using stolen debit card data.

There are around 75 crore debit cards operational in India.

Sources: the hindu.

Cyber Swachhta Kendra

Extending the 'Swachh Bharat' campaign to the cyber world, the government has launched the Cyber Swachhta Kendra—Botnet Cleaning and Malware Analysis Centre for analysis of malware and botnets that affect networks and systems.

- This is a part of MeitY's Digital India initiative aimed at creating a secure cyber space by detecting botnet infections in India and to notify, enable cleaning and securing systems of end-users to prevent further infections.

Key facts:

- The Centre aims to enhance coordination between the Government and industry in order to encourage cyber hygiene among all end-users and to create a secure and safe internet ecosystem in India.
- The centre is operated by the Indian Computer Emergency Response Team (CERT-In).
- The Centre will operate in close co-ordination and collaboration with Internet Service Providers (ISP) and Anti-Virus companies. Whenever an infection is detected, the Centre will send alerts on the infected IP addresses to the Internet Service Providers, who in turn will inform the end-user about the malware and botnet infections on their system.
- The Centre will also work in close collaboration with the Banks to detect malware infections in their banking network and enable remedial actions.
- The launch of the Centre will help the Internet service providers and the banks to keep their networks clean and prevent cases of cyber fraud and theft.

Significance of Cyber Swachhta Kendra:

With the growth in digitalization and proliferation of broadband and mobile internet, security of end users' systems is vital for enhancing their trust in ICT and online transactions. User information from the computer and the mobile devices can be compromised if systems get affected with Bots. Users therefore need to practice a rigid cyber hygiene regimen to prevent malware infections on their systems and to ensure security of their systems through suitable anti-malware tools.

Sources: pib.



World Integrated Medicine Forum on Regulation of Homeopathic Medicine

The World Integrated Medicine Forum on Regulation of Homeopathic Medicinal Products: National and Global strategies is being held in New Delhi.

Key facts:

- This is the first-of-its-kind forum considering the increased perception of the international world towards India as a key player in the progress of the homoeopathy drug industry.
- Drug lawmakers, regulators, manufacturers and pharmacopeial experts from various regulatory authorities, eminent scientific organisations and pharmaceutical industries from 25 countries, are participating in the two days forum to strategize the actionable aspects in the homoeopathic drug industry, which, in turn, will promote global harmonisation in the sector.
- The event is organised by Ministry of AYUSH and Central Council for Research in Homeopathy (CCRH) and supported by Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIMH) & Central Drugs Standard Control Organization (CDSCO).
- Major points of discussion will include current regulatory status in different countries; practices and possible trade opportunities in key countries worldwide; possible solutions to regulatory challenges; building knowledge and network to deal more efficiently with challenges at national and global level and a strategic perspective on the possibilities.
- One of the highlights of the forum will be exchange of Memorandum of Understanding among Homoeopathic Pharmacopoeia Convention of the United States (HPCUS) and Indian bodies – Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H) and Central Council for Research in Homoeopathy (CCRH) on cooperation in the field of Homoeopathic Medicine.

Background:

Homoeopathy is one of the most followed medical systems in India and its strength lies in the fact that its medicines are gentle, safe as well as cost-effective. In the era of growing adverse drug reactions and auto-immune and lifestyle-related illnesses, Homeopathy has a crucial role to play in the well-being of mankind. The use of homoeopathy is steadily growing in India and as per an analysis by Ministry of AYUSH, this sector exhibited an annual growth rate of 26.3% in the past year, the highest among the other AYUSH modalities.

Regulation of homeopathic medicines:

In India, homoeopathic medicines are regulated by Drugs & Cosmetics Act & Rules. All pharmaceutical industries are legally bound to comply with these rules, which, in turn, assures safety and quality of homoeopathic medicines. Further, these industries adhere to Good Manufacturing Practices (GMP) that further assure accredited production, packaging and distribution. In that sense, India has a relatively well-established regulatory framework for Homoeopathy. However, the implementation of these Acts and Rules are sometimes challenging at the end of the pharmaceutical industries, and despite their best efforts to comply, some practical challenges remain that come in their way.

On the other hand, the international scenario of regulations of homoeopathic medicinal products is also varied and in many countries, the regulatory provisions are either non-existent or minimalist, thereby advocating reforms in policies for wider accessibility of quality homoeopathic products.

Sources: pib.



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Facts for Prelims

First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation, 2015-16

The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation has released the First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation for the financial year 2015-16 (with Base Year 2011-12) as per the revision policy.

Key facts:

- Nominal GDP or GDP at current prices for the year 2015-16 is estimated as Rs. 136.75 lakh crore exhibiting a growth of 10.0% during 2015-16.
- Real GDP or GDP at constant (2011-12) prices for the years 2015-16 stands at Rs. 113.58 lakh crore and showing growth of 7.9% during 2015-16.
- In terms of real GVA, i.e., GVA at constant (2011-12) basic prices, there has been a growth of 7.8% in 2015-16, as against growth of 6.9% in 2014-15.
- During 2015-16, at constant prices, the growth rates of primary (comprising agriculture, forestry, fishing and mining & quarrying), secondary (comprising manufacturing, electricity, gas, water supply & other utility services, and construction) and tertiary (services) sectors have been estimated as 2.6%, 7.8% and 9.8% as against a growth of 1.8%, 6.1% and 9.5%, respectively, in the previous year.
- Nominal Net National Income (NNI) at current prices for the year 2015-16 stands at Rs. 120.83 lakh crore as against Rs. 109.61 lakh crore in 2014-15, showing an increase of 10.2% during 2015-16 as against an increase of 10.7% in the previous year.
- Gross Saving during 2015-16 is estimated as Rs. 44.05 lakh crore as against Rs. 40.98 lakh crore during 2014-15. Rate of Gross Saving to GNDI for the year 2015-16 is estimated as 31.6% as against 32.3%, estimated for 2014-15.
- The highest contributor to Gross Saving is the household sector, with a share of 59.2% in the year 2015-16. However, the share has declined from 62.0% in 2014-15 to 59.2% in 2015-16. This decline can be attributed to decline in household savings in physical assets, which has declined from Rs. 15.78 lakh crore in 2014-15 to Rs. 14.84 lakh crore in 2015-16.
- The share of Non-Financial Corporations in savings has increased from 34.3% in 2014-15 to 37.3% in 2015-16. The share of Financial Corporations decreased from 8.3% in 2014-15 to 6.5% in 2015-16, while the dis-saving of General Government has decreased from 4.6% of Gross Saving in 2014-15 to 3.1% in 2015-16.
- The rate of Gross Capital Formation to GDP at constant (2011-12) prices has decreased from 35.8 per cent in 2014-15 to 35.5 per cent in 2015-16.

National Entrepreneurship Awards 2016; Operation Clean Money

National Entrepreneurship Awards 2016:

- National Entrepreneurship Awards 2016 were recently presented. The awards have been presented in order to recognise the entrepreneurial spirit of India's youth and encourage more young Indians to become entrepreneurs.



- The Entrepreneurship Awards system has been created through a partnership between MSDE and a number of reputed institutions across the country including, Indian Institute of Technology (IIT – Delhi, Mumbai, Kanpur and Chennai), Tata Institute of Social Sciences (TISS), Mumbai and XLRI, Jamshedpur. Every year, one such institution will play the role of the lead institution to anchor the awards. For 2016-2017, the lead institution is IIT, Delhi.

[Income Tax Department \(ITD\) launches Operation Clean Money:](#)

- Income Tax Department (ITD) has initiated Operation Clean Money.
- Initial phase of the operation involves e-verification of large cash deposits made during 9th November to 30th December 2016.
- Data analytics has been used for comparing the demonetisation data with information in ITD databases.
- In the first batch, around 18 lakh persons have been identified in whose case, cash transactions do not appear to be in line with the tax payer's profile.

Rs 1500-crore defence unit to be set up in MP district

- The Defence Ministry would be setting up its unit of national importance in Madhya Pradesh.
- The Defence Ministry would spend Rs 1500 crore on the proposed unit.
- The government has already sent the proposal for the diversion of forest land to the Union Environment Ministry for the purpose and the same is in the last phase of approval.

India business partnership summit to take place in Bahrain

- The first Indian Business Partnership Summit will shortly be held in Bahrain to further cement bilateral trade and economic ties.
- The summit is organised by India's PHD Chamber of Commerce and Industry in association with Hilal Conferences and Exhibitions (HCE).
- India and Bahrain enjoy excellent bilateral relations characterised by strong political, economic and cultural contacts. This positive relationship is seen in the latest trade figures which valued trade between the two countries to be over 1 billion US dollars.

DARPGSEVA

- It is a Twitter Seva initiative of the Department of Administrative Reforms and Public Grievances (DARPG), Ministry of Personnel, Public Grievances and Pensions.
- The Twitter Seva aims to address issues relating to the DARPG like Public Grievances and Administrative Reforms etc.
- The Twitter Seva will enable the DARPG to reach out to the common public and various stakeholders for facilitating redress of grievances and other issues of importance relating to the department.



Underwater harbour defence, surveillance system launched / RTI Act comes into force in Sri Lanka

Underwater harbour defence, surveillance system launched:

An Integrated Underwater Harbour Defence and Surveillance System was recently inaugurated in Mumbai.

- The system will enhance the security of valuable assets against asymmetric threats.
- The IUHDSS is a state of the art system with integrated radars, electro optic cameras and sonars.
- IUHDSS is a state-of-the-art automated system capable of detecting, identifying, tracking and generating warning for surface and underwater threats.

INTEGRATED HARBOUR DEFENCE

- Kochi naval harbour gets India's first IUHDSS
- System capable of detecting surface and underwater threats to installations and warships at quay
- Project designed by Israeli Aerospace Industries (IAI) ELTA
- To be replicated at Mumbai, Vizag, Port Blair
- Real-time images to be relayed to Joint Operations Centre (JOC) at Naval Base
- Naval Officer In-Charge Kerala (NOIK) to control the system



RTI Act comes into force in Sri Lanka:

- The Right to Information (RTI) Act has come into force in Sri Lanka.
- This legislation is aimed at restoring transparency and good governance in a country that has been plagued by corruption and misrule.
- The government had last week gazetted the categories of public authorities that fall within the purview of the RTI.
- The authorities are bound to respond to these requests as per the specified guidelines, within a maximum period of 28 days.

Tribe offers clues to hidden wonders of medicinal plant

- Scientists have confirmed the multiple therapeutic properties of *Neurocalyx calycinus* used by the Cholanaickan tribe, one of the particularly vulnerable groups in Kerala, to treat inflammations and wounds.
- This medicinal plant is endemic to the southern parts of Western Ghats and Sri Lanka.
- The researchers have filed for a patent on a novel herbal drug formulation possessing wound-healing, burn-healing, anti-cancer, analgesic, anti-inflammatory, immuno-enhancing, platelet-augmentation and anti-oxidant effects.
- The pre-clinical trials confirmed the therapeutic effects of *N.calycinus* against burn wounds and pain, besides its immuno-enhancing, platelet augmentation, and anti-oxidant potential.
- The presence of high Vitamin E content and potent cytoprotective activity in cell lines in the plant species have also enhanced the prospects of developing an anti-cancer drug.

BioAsia 2017

- BioAsia, the annual flagship event of the Telangana government, has begun in Hyderabad. BioAsia is the 14th edition of this event.
- The event agenda will touch upon many areas ranging from innovation and R&D, manufacturing, digital healthcare, diagnostics and hospital infections to anti-microbial resistance.



- Around 1,500 delegates from over 50 countries are taking part in this event.
- BioAsia seeks to enhance, enrich and encourage newer innovations, path-breaking discoveries and effective solutions in the industry by offering a vibrant global platform for convergence of the key stakeholders – Biotech & Biopharma Companies, research institutions, investors, service providers, policy makers, regulators and analysts.
- Organized by the Department of Industries and Commerce, Government of Telangana, this event has emerged as a preeminent technology and bio-business convention in Asia for Life sciences, pharmaceuticals and healthcare.

Gujarat Becomes First State To Establish Cashless System

- Gujarat has become the first state in the country to establish cashless distribution of food grain.
- The beneficiaries under NFSR (National Food Security Act) will need to carry only Aadhaar cards for getting their food grain in Gujarat.
- Gujarat government for installing Aadhaar Enabled Payment System in 17,250 Fair Price Shops (FPS) much before the target, March 31.

Aman 2017; Archaeologists Discover First New Dead Sea Scrolls Cave in 60 Years

Aman 2017:

- The international naval exercise “AMAN-17” is being held in Karachi, Pakistan. More than 35 countries are participating in the event.
- The multinational exercise, themed “together for peace,” has been planned by the Pakistan Navy.
- AMAN 17 exercise will feature harbor and sea phases where participants will witness a variety of activities including Search & Rescue (SAR) Operations, gunnery drills, anti-piracy demonstrations, replenishment at Sea (RAS) and maritime counter-terrorism demonstrations.
- It involves ships, aircraft, helicopters, Special Operations Forces (SOF), Explosives Ordnance Disposal (EOD), marine teams and observers from regional as well extra-regional navies.
- This exercise provides a platform for the navies involved – some of which do not work together very often – to hone their skills and build cooperation and friendship to promote peace and stability.

Archaeologists Discover First New Dead Sea Scrolls Cave in 60 Years:

- Archaeologists from The Hebrew University of Jerusalem have discovered a new “Dead Sea Scroll cave,” the first such discovery in more than 60 years.
- The cave—located in cliffs near the northwestern shore of the Dead Sea—is now thought to be the 12th of its kind.
- Researchers found a long list of items including smashed jars and a leather strap for binding and cloth for wrapping the scrolls, but they did not actually find an actual scroll.
- The Dead Sea Scrolls are a collection of ancient manuscripts thought to be among the oldest known surviving Judeo-Christian texts.



Official Mascot unveiled for FIFA U-17 World Cup India 2017

A clouded leopard called Kheleo has been chosen the official mascot of the FIFA U-17 World Cup 2017.



- The clouded leopard is a vulnerable wild cat whose habitat extends from the Himalayan foothills to mainland Southeast Asia.
- The U-17 WC will be the first FIFA tournament to be hosted by India, and will be played from October 6- 28, 2017.

Hunar Haat; INS Sarvekshak- India's first ship to use solar energy on board

Hunar Haat:

- The second edition of Hunar Haath has begun in New Delhi.
- It is being organized by the Minority Affairs Ministry to encourage, promote and provide national and international market to master artisans/craftsmen belonging to the Minority communities from across the country.
- Theme: "Craft Aur Cuisine Ka Sangam".
- "Hunar Haat" is being organized through National Minorities Development & Finance Corporation (NMDFC) under USTTAD (Upgrading the Skills & Training in Traditional Arts/Crafts for Development) scheme of Ministry of Minority Affairs.

India's first ship to use solar energy on board:

- The Indian Navy has installed solar panels on board survey ship INS Sarvekshak, based in Kochi.
- With this, Sarvekshak has become the first ship in India, perhaps first in the world, to use solar energy on board.
- The solar panels have the capacity to produce 5.4 KV of electricity, which is sufficient for internal lighting of the vessel round-the-clock.

Indian Seed Congress – 2017; World Radio Day 2017; India's first floating elementary school; International Spice Conference

Indian Seed Congress – 2017:

- Indian Seed Congress – 2017 is being held in Kolkata.
- The theme of Seed Congress is "Seed of Joy".
- The annual forum will deliberate on the new technological advances and the barriers to technology development and introduction. It will showcase new product range, services and network for better business development.
- It would provide a platform for the seed industry stakeholders to talk to technology developers, and policy makers.

World Radio Day 2017:

- World Radio Day is observed on February 13 to celebrate radio as a medium to promote and access information.
- After originally proposed by the Kingdom of Spain, UNESCO in its 36th General Conference proclaimed World Radio Day on November 3, 2011. Later, it was adopted as an International Day by the United Nations General Assembly.
- 13 February is the anniversary of the day the United Nations established United Nations Radio in 1946.



- The theme for the 2017 edition of World Radio Day is “Radio is You.” Last year, the UNESCO’s theme for World Radio Day is “Radio in Times of Emergency and Disaster”.

India's first floating elementary school:

- Loktak lake, the largest freshwater lake in the country, has now become home to first of its kind loktak floating elementary school.
- Situated about 50 km from Imphal, the school has been inaugurated at Langolsabi Leikai of Champu Khangpok village in Manipur.
- It aims to provide education to drop outs students, who were rendered homeless due to the recent evacuation of phumdis.
- The school has been opened under the initiative undertaken by All Loktak Lake Fisherman’s Union with the support of an NGO – People Resources Development Association (PRDA). The school will not only cater to the need of the children but for the illiterate adults as well. The school will be accommodating around 25 students and two teachers from the community.
- The honorarium of the volunteers will be sanction by the PRDA, under the project called ‘Empowering vulnerable local communities for sustainable development’, which is funded by Action Aid India.

International Spice Conference:

- Kerala’s capital is hosting the second edition of the International Spice Conference.
- Over 700 delegates representing various States, industry leaders from 40 countries, representatives of international spice associations, policymakers and end-users are attending the event.
- The central theme of the conference would be ‘21st century spice industry: Disrupt or be disrupted.’
- It will discuss effective strategies and innovative technologies to improve the livelihood of farmers; address industry challenges, food safety concerns and demand supply disparity; and seek to foster sustainable growth.
- The event is being hosted by the All India Spices Exporters Forum (AISEF), which represents about 80 per cent of spices exports, in association with the Cochin Chamber of Commerce and Industry.

TAMRA portal for transparent mining clearance

- TAMRA portal was recently simultaneously launched across 12 mineral rich states.
- The portal is developed by the ministry of Mines.
- TAMRA is a step to speed up mining activity in India and facilitate all the stakeholders to track the status of the statutory clearances associated with blocks for getting mines to reach till operationalisation for the same.
- It will be an interactive platform for all the stakeholders to compress the timeline for statutory and other clearances as it is expected to help minimise the gestation period for starting production.
- TAMRA covers block-, state- and mineral-wise information of the blocks to be auctioned, monitors various statutory clearances and also highlights the additional resources generated through e-auction.
- In case of delay in obtaining any clearances, TAMRA will send out triggers to the authority concerned so that the remedial steps can be taken immediately.
- The mines ministry will also receive triggers generated by TAMRA, which will facilitate expediting clearances in case the timelines set against each of the statutory clearances are not met.



Kalimpong is Bengal's 21st district



- The Kalimpong subdivision of the Darjeeling hills has become the 21st district of West Bengal.
- Kalimpong was once known for the Silk Route that passed through the region, connecting Nepal and Bhutan with the city.

INSV Tarini

- It is the Indian Navy's second ocean going sailboat. It was recently inducted into the Indian Navy.
- INSV Tarini is a sloop built by M/s Aquarius Shipyard Pvt Ltd at Divar, Goa.
- It is slated to be the platform for First Indian All Women Circumnavigation of the Globe expedition of the Indian Navy.
- The boat draws her origin from the famous Tara-Tarini temple of Orissa's Ganjam district. The word Tarini means a Boat and is also a Sanskrit word for Saviour. Tara-Tarini is a patron deity for sailors and merchants and is worshipped for safety and success at sea.

Mexican caves, a home to life dating back 50,000 years; Kashmir to observe 2017 as the 'Year of Apple'

Mexican caves, a home to life dating back 50,000 years:

- Biologists have unearthed bizarre microbes trapped in crystals that survived on minerals under extremely punishing conditions in Mexican caves.
- Scientists believe life trapped in crystals could be 50,000 years old.

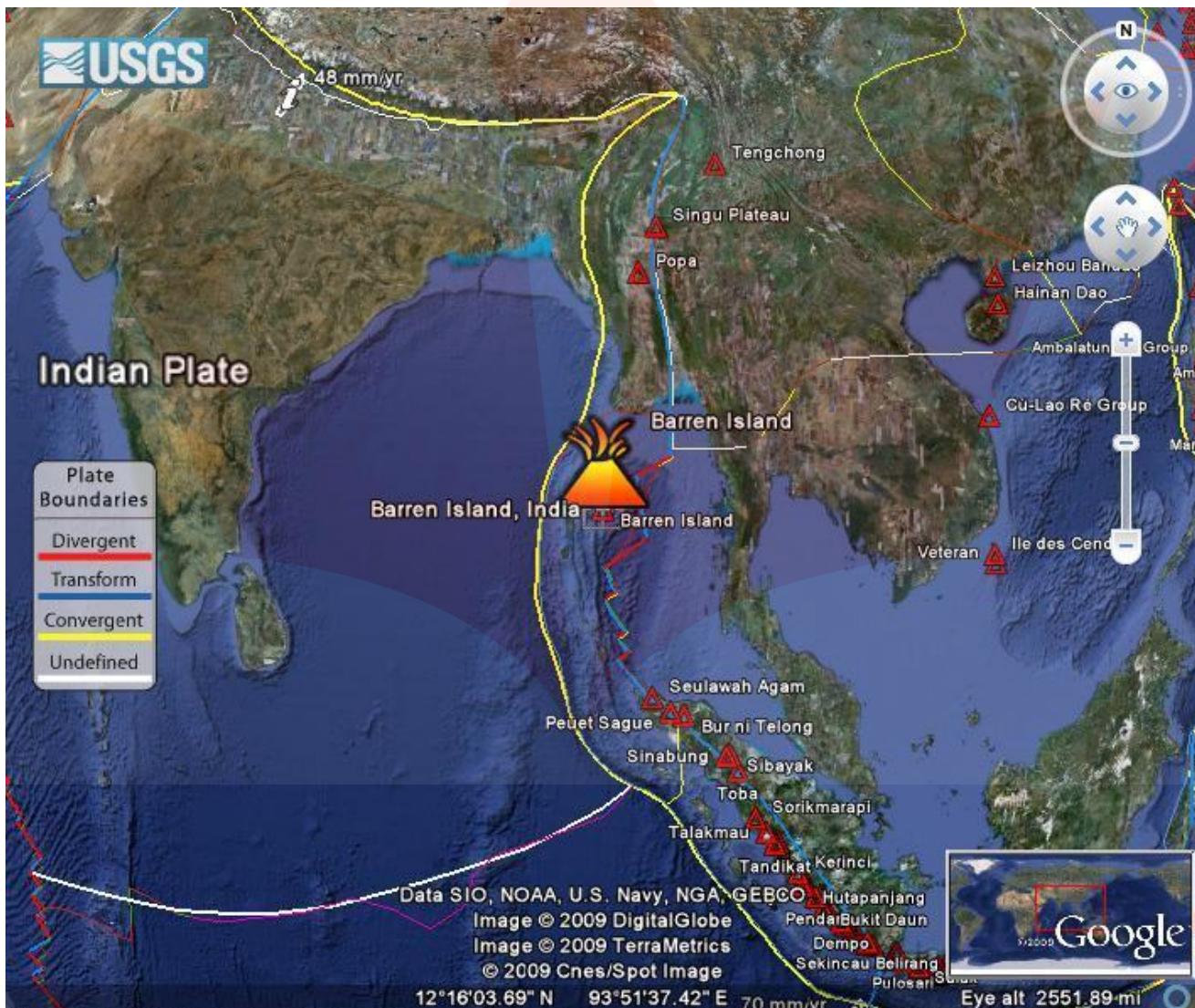
- The bizarre and ancient microbes were found dormant in caves in Naica, Mexico, and were able to exist by living on minerals such as iron and manganese.
- The Naica caves, an abandoned lead and zinc mine, are half a mile (800 meters) deep.

Kashmir to observe 2017 as the 'Year of Apple':

- J&K Chief Minister Mehbooba Mufti has declared 2017 as 'Year of Apple' in a major bid to promote the famed Kashmiri apples in domestic and foreign markets.
- As part of this, the Chief Minister launched the High Density Apple Plantation Scheme in Srinagar. These high-density plants will be routed through J&K Bank along with the subsidy.
- Jammu and Kashmir is the largest apple producing State in India at 11.2 metric tonnes, which accounts for 71% of national production, according to official figures.

India's only volcano active again / Archives of Confucius' scions to be published

India's only volcano active again:



- India's only live volcano in the Andaman and Nicobar Islands has started spewing smoke and lava again.
- After lying dormant for 150 years, **Barren Island** volcano erupted in 1991 and has been showing sporadic activity since then.



- The Andaman basin is an active back-arc spreading basin known for strong seismicity, submarine volcanoes and hydrothermal activity.
- Scientists from CSIR-NIO have been surveying the basin and have identified several small submerged volcanoes in a linear chain called a volcanic arc.

Archives of Confucius' scions to be published:

- Over 2,000 copies of archived records of Chinese philosopher Confucius's direct descendants will be published over the next four years.
- The archived records of 'Yanshenggong', a hereditary title bestowed upon the eldest child of all direct descendants of Confucius, are published for the purpose of protection.
- The Yanshenggong was a hereditary official who coordinated commemoration ceremonies for Confucius and managed the family's internal affairs.
- The archives, in more than 9,000 volumes spanning 2,000 years, contain content covering politics, economics, culture and thought.
- Confucius (551-479 BC), an educator and philosopher, influenced generations of Chinese society. He was the first Chinese person to set up private schools that enrolled students from all walks of life. Confucius is reported to have Six lakh descendants in China.

Four new tiny frog species found in Western Ghats

- Scientists exploring the forests of the Western Ghats have come across four new species of tiny frogs no bigger than a human thumbnail.
- The newly discovered frogs include: Athirappilly Night Frog, Sabarimala Night Frog, Radcliffe's Night frog and the Kadalar Night Frog.
- These species are among the seven new 'Night Frogs' discovered by the researchers.
- Night Frogs belong to the Nyctibatrachus genus endemic to the Western Ghats and represent an ancient group of frogs that diversified on the Indian landmass approximately 70 to 80 million years ago.
- The discovery has taken the total number of known Nyctibatrachus species to 35, of which 20% are diminutive in size (less than 18 mm).

First robot table tennis tutor sets Guinness record / Mumbai richest Indian city with wealth of \$820 billion / Black rhinos on the brink of extinction

First robot table tennis tutor sets Guinness record:

- The world's first robot table tennis tutor in Japan has set a new Guinness World Record for its uncanny ability of being able to play the game better than most humans.
- FORPHEUS (Future Omron Robotics Technology for Exploring Possibility of Harmonised aUtomation with Sinic Theoretics) has officially been given the Guinness title for its unique technological intelligence and educational capabilities.
- The machine is easily able to act as a coach thanks to cutting edge vision and motion sensors it can use to gage movement during a match.
- FORPHEUS also features an array of cameras that are situated above the ping pong table which monitors the position of the ball at an impressive rate of 80 times per second. This functionality also allows the robot to show its human student to see a projected image as to where the return ball will land so that they may improve their skills.



- FORPHEUS encourages players to try their best by showing supportive messages along the LED screen situated on the tables net.

Mumbai richest Indian city with wealth of \$820 billion:

- According to New World Wealth, Mumbai is the richest city in the country followed by Delhi and Bengaluru in the second and third place, respectively.
- Mumbai, which is home to 46,000 millionaires and 28 billionaires, is the richest Indian city with a total wealth of \$820 billion.
- The total wealth held in the country amounts to USD 6.2 trillion (as of December 2016) and the country is home to 264,000 millionaires and 95 billionaires in total.

Black rhinos on the brink of extinction:

- As the value of rhinoceros horn touches \$65,000 per kg, poaching has begun to drive the African black rhinoceros to “the verge of extinction” – not just by reducing its population size, but by erasing 70% of the species’ genetic diversity- says a report.
- Two centuries ago, the black rhinoceros – which roamed much of sub Saharan Africa – had 64 different genetic lineages; but today only 20 of these lineages remain. The species is now restricted to five countries, South Africa, Namibia, Kenya, Zimbabwe and Tanzania.
- The species overall is classified as critically endangered, and three subspecies, one including the western black rhinoceros, were declared extinct by the International Union for Conservation of Nature (IUCN) in 2011.

Country's first Antyodaya Express:

- Minister of Railways recently flagged off Country's first Antyodaya Express running between Ernakulam – Howrah.
- Antyodaya Express: It is a long-distance, fully unreserved, super-fast train service for the common man. It will operate on dense routes.
