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CURRENT EVENTS

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Table of Contents

INSIGHTSIAS
SIMPLIFYING
IAS EXAM PREPARATION

INSIGHTSIAS
SIMPLIFYING
IAS EXAM PREPARATION

GS I

Paper 1 Topic: *Art and culture.*

Kondane cave art depicts myth and daily life

Archaeologists have discovered around 40 rock paintings in Kondane caves in Raigarh district in Maharashtra.

Details:

- These paintings include a hunter standing with a bow and arrow, a Barasingh, footprints, palm impressions and some trees.

- The images were found in both natural caverns and man-made caves.

- The man-made caves also feature **Buddhist architecture such as a 'chaitya' (prayer hall) and a monastery**.

- A striking image found was that of a mythical figure, perhaps a demon. Other paintings reflected everyday life and occupations such as hunting deer.

- The Buddhist rock-cut architecture found in these caves belongs to the **Hinayana phase of Buddhism**.

Sources: the hindu.

Tales decoded from mediaeval copper plates

Researchers from the **Bhandarkar Oriental Research Institute (BORI)**, which houses South Asia's largest collection of manuscripts and rare texts, have decoded three copper plates belonging to rulers from mediaeval South Indian dynasties.

Details:

Chalukya plate

The oldest plate, which has **inscriptions in Sanskrit and Kannada**, dates back to the 7 Century A.D. It records an anecdote about **Vinayaditya**, who ruled the **Badami Chalukyan dynasty** from 680 A.D. to 696 A.D.

- Vinayaditya gifted the village of Telgi in Karnataka to a scholar of the **Gautam Gotra** in 683 A.D. The village is on the northern banks of the Krishna river in Bijapur district in Karnataka.
- The Chalukya plate, which is divided into three iron strips, consists of 33 lines of text spread across it. The strips are made into a ring and contain the **king's seal depicting a boar**.

Yadava plate

The second plate dates back to the time of the **Yadava dynasty of Devagiri**. It records King **Kanhardev Yadav** giving a strip of land near Saundatti in Karnataka to some beneficiaries on April 29, 1254.

- Kanhardev ruled the Yadavas before the dynasty was **subjugated by Ala-ud-Khilji and incorporated into the Delhi Sultanate in 1294 A.D**.
- This plate too bears three strips and consists of 104 lines in Sanskrit and Kannada. It also has a **seal in the shape of an eagle**.

Aravidu dynasty

The third plate, dated January 7, 1606, belongs to King **Venkatapati Raya of the Aravidu dynasty**, which was the **fourth and the last Hindu clan to hold sway over the once-powerful Vijayanagara Empire**.

- The plate dates back to a time when the empire's grandeur had all but faded after Rama Raya, the powerful regent of the Vijayanagara empire, suffered a crushing defeat at the hands of the Bahamani kings in the **battle of Talikota in 1565 A.D**.
- The Aravidu plate bears five strips and 160 lines of text. It talks about a land grant in the villages of Puliyendal and Randal in Karnataka.

Sources: the hindu.

Sculpture of Chandesvarar

A sculpture of **Chandesvarar**, believed to belong to 10ᵗʰ century AD, has been found at Sundaikkai village near Umaiyalpuram in Tamil Nadu. The sculpture was an early **Chola icon**.

- Chandesvarar is one of the 63 Nayanmars of the Saivite sect and was the first among them to find a place in temples. He is housed in a separate shrine on the

northern side of all the Saivite temples, facing the presiding deity.

- He is the only devotee to have the credit of getting announced as His son by the Lord Himself and is given the very high rank of Chandesapatham.
- The most distinguished shrine of Chandesvara was built by Rajaraja I at the Rajarajesvaram at Thanjavur.

Sources: the hindu.

Paper 1 Topic: *Social empowerment.*

Twitter Launches Campaign To 'Empower Women'

Taking cue from a study showcasing prevailing male dominance over both online and offline space, social networking site Twitter recently launched **#Positionofstrength campaign** to empower women to raise voices against any form of discrimination.

Key facts:

- The movement, which has been already been launched in Australia and Ireland, seeks to bridge the gender equality gap online in India and "inspire the next generation of women leaders to have an influential voice in society."

- With this, Twitter hopes to strengthen the women empowerment movement and encourage women to amplify their voices in a secure and confident manner.

- For this, the social networking platform has partnered with the FICCI Ladies' Organisation and the Observer Research Foundation to engage more women to find their voices online, communicate safely with confidence and network with other like-minded women and the global community at large.

- Under this campaign, twitter has introduced measures to empower our users with tools to mute, block and report abusive behaviour.

- In order to expand the reach of the programme, a series of round table sessions and workshops with women leaders has been scheduled to be organised throughout the year to discuss how to increase empowerment and safety for women, both online and in the physical world.

- Meanwhile, Twitter also launched its Safety Center in Hindi to ensure engagement and education of women locally to enable them to use the platform safely and with confidence.

Sources: toi.

NITI Aayog launches 'Women Transforming India' campaign

Celebrating women doers, leaders and change makers from across the country, NITI Aayog–Government of India's premier think-tank – has launched the '**Women Transforming India**' initiative on International Women's Day, in partnership with the UN in India and MyGov.

- With this, NITI Aayog seeks to engage directly with women leaders from across urban and rural areas of India.

- Through the initiative, NITI Aayog is seeking for entries in the form of written essays/stories. These stories should reflect new ground broken by women in empowering themselves/others, or of challenging stereotypes.

- Winning entries will receive a certificate of appreciation from NITI Aayog and the UN in India. Winners may also have a chance to interact directly with policy makers in the Government of India, to enable affect positive policy action.
- This initiative is also a step forward in furthering the Sustainable Development Goals (SDGs), which have Gender as a stand-alone goal. NITI Aayog has been entrusted with the responsibility to plan, monitor and coordinate SDG efforts across Central Ministries and State governments.

Sources: pib.

Women can enter temples

The Bombay High Court has come out in favor of women's right to worship. The court has observed that there is no law that can prevent women from entering a place of worship.

Background:

These observations by the court were made during the hearing of a public interest litigation petition challenging the prohibition of entry of women in the Shani Shingnapur Temple in Maharashtra.

- The petition seeks the entry of women not just into the temple, but also inside its sanctum sanctorum.
- The petition says that the prohibition is arbitrary, illegal and in violation of fundamental rights of citizens.

What the law says?

Under **the Maharashtra Hindu Place of Worship (Entry Authorisation) Act, 1956**, if any temple or person prohibits any person from entering a temple then he or she faces a six-month imprisonment.

Important observations made by the court:

- If a male can go and pray before the deity then why not women?
- It is the state government's duty to protect the rights of women and the government should give wide publicity to the Act and issue circulars, informing the general public at large about the Act and its provisions.

Sources: the hindu.

Paper 1 Topic: *Role of women and women's organization.*

Women in House: India's rank slips

India has slipped from a rank of 117 among 188 countries in 2014 to **144 among 191 countries**, **in terms of the proportion of women in Parliament**.

Surprisingly, the 16th Lok Sabha has the highest number of women that the Lower House has ever had.

Key facts:

- 12% of MPs in the Lok Sabha are women and the figure stands at 12.8% in Rajya Sabha. This is well below the global average of around 22% in both Houses.

- While 62 women were elected to the Lok Sabha in the general elections in May 2014, four more have been added over the last couple of years through by-elections. But while the proportion of women has increased from 11.4% in June 2014 to 12% in February 2016, India's rank compared to other countries has fallen.

- Countries that currently rank higher than India include several African and Latin American countries, as well as countries that were part of the erstwhile Soviet Bloc.

- Rwanda ranks No 1 with 63.8% women in the lower house of parliament and 38.5% in the upper house.

Sources: toi.

Women's membership at top science academies:

India is near the bottom in a ranking of 69 countries based on women's membership at at top science academies.

- This is the first such survey and was recently published in the journal 'Nature'. The survey was conducted in 2014 and released in February this year by the members of Inter Academy Partnership (IAP).

Highlights:

- The survey reports a drop in the number of women researchers at Indian National Science Academy (INSA) in the past three years. From 15% of all members in 2010, the number fell to 6% in 2013. Of INSA's 864 members in

2013, only 52 were women. Until 2014, INSA had no woman in its 31-member governing body.

- Other countries have done much better. National Academy of Sciences in the US, and the academies of Switzerland and Sweden, had 47% women members in their governing councils.
- Cuban academies had 40% women, while Canada and Panama had 38% each. Netherlands had 43%, the UK 40%, and Ireland 36%.

Sources: toi.

Paper 1 Topic: population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.

World Bank to extend Rs 9,000 crore support to Swachh Bharat Mission

The government has approved 1.5 billion dollar (about Rs 9,000 crore) World Bank support for the Swachh Bharat Mission (SBM) in rural areas.

- The project basically provides for incentivising states on the basis of their performance in the existing**SBM-Gramin**. Incentivisation of states was approved by the Cabinet while approving the SBM-Gramin in September, 2014.
- The current approval provides for the mechanism of such incentivisation through World Bank credit.
- The states will pass on a substantial portion of more than 95% of the Performance Incentive Grant Funds received to the appropriate implementing levels of districts, Blocks, GPs etc.
- The end-use of the incentive grants will be limited to activities pertaining to the sanitation sector.

About SBM-Gramin:

The Swachh Bharat Mission, launched in October 2014, consists of two sub-missions – the Swachh Bharat Mission (Gramin) (SBM-G), which will be implemented in rural areas, and the Swachh Bharat Mission (Urban), which will be implemented in urban areas.

- SBM-G seeks to eliminate open defecation in rural areas by 2019 through improving access to sanitation. It also seeks to generate awareness to motivate communities to adopt sustainable sanitation practices, and encourage the use of appropriate technologies for sanitation.

- SBM-Gramin mainly focuses on ensuring the use of toilets, besides their construction. The States and their implementing agencies will be given incentives for meeting performance standards: reducing open defecation, sustaining their open defecation-free status and improving solid and liquid waste management in rural areas.

Sources: pib.

Topic: Geography (Prelims)

Sun may produce devastating 'superflares'

Scientists have indicated that the Sun is capable of producing monstrous eruptions or '**superflares**' that can not only break down radio communication and power supplies, but also affect Earth's ability to support life.

Background:

- Superflares have been a mystery since the Kepler mission discovered them in larger numbers four years ago. The largest observed eruption from the Sun took place in September 1859.

- Earth is often struck by solar eruptions. These eruptions consist of energetic particles that are hurled away from the Sun into space. But, when the Sun pours out gigantic amounts of hot plasma during large solar eruptions, it may have severe consequences.

Effects of superflares:

- Damage to or loss of all artificial satellites.

- Airline passengers on trans-polar flights would receive high radiation doses from the energetic particles (as would any astronauts or the crew of the International Space Station).

- Significant depletion of the ozone layer with increased risk of cataracts, sunburn and skin cancer, as well as damage to growing plants. The recovery time would be of the order of months to years.

- In the strongest cases there would be severe damage to the biosphere, especially to primary photosynthesis in the oceans.

- Failure of the electricity distribution system, possibly with damage to transformers and switching equipment.

- Loss of power to the cooling systems of spent fuel rods stored at nuclear power stations.
- Loss of most radio communication because of increased ionisation in the atmosphere.

Sources: the hindu.

Paper – 1 Topic: *Resources*

World Water Day

World Water Day is being observed globally today (22ⁿᵈ March). It is to mark the importance of water to human civilisation and nature. It is part of Decade for Water (2005-2015) activity by the United Nations.

2016 Theme: "Water and Jobs"

Background:

The United Nations General Assembly designated March 22 as World Water Day in 1993 following a resolution taken in Rio, Brazil in 1992 when demands were made to designate a special day for water resources.

GS II

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

SC dismisses plea to name country 'Bharata'

The Supreme Court has dismissed a plea demanding changing the name of 'India' to 'Bharat'.

<u>What has the court said?</u>

The court observed, "Every Indian has the right to choose between calling his country "Bharat" or "India", and the Supreme Court has no business to either dictate or decide for a citizen what he should call his country."

- The court also took strong exception to the petitioner asking him whether he thinks it has nothing else to do and reminded him that Public Interest Litigations (PILs) are meant for "poor".

<u>Background:</u>

Earlier, the bench, then headed by Chief Justice of India HL Dattu, had sought responses from the Centre, the states and Union Territories on the plea which called for restraining the Centre from using the name of India for any government purposes and in official papers.

- The plea had sought a direction to NGOs and corporates that they should use term 'Bharat' for all official and unofficial purposes.
- The PIL said in the Constituent Assembly, the prominent suggestions for naming the country were "Bharat, Hindustan, Hind and Bharatbhumi or Bharatvarsh and names of that kind".

Sources: the hindu.

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

Stay on floor test in Uttarakhand

A Division Bench of Uttarakhand High Court has decided to keep the March 29 order of High Court allowing floor test in abeyance till April 6.

<u>Why?</u>

This decision is based special appeals filed by the Centre and opposition parties in Uttarakhand over ambiguities in the March 29 order of the court where Mr.Rawat was permitted a floor test.

- The centre had approached the court questioning the permission for voting while the state is under President's Rule and the opposition parties had approached the court questioning the rights of nine disqualified MLAs to participate in the ballot.

What the March 29 order says?

In its order on March 29th, the High Court allowed Mr. Rawat to take a floor test in Vidhan Sabha to test his majority.

Why can't floor test be taken now?

According to the centre, after the imposition of President's Rule, **the State legislature cannot function and all its functions can only be discharged by or under the authority of Parliament. Also, voting is not permitted under President's rule**.

Sources: the hindu.

Paper 2 Topic: Parliament and State Legislatures – structure, functioning, conduct of business, powers & privileges and issues arising out of these.

Opposition sees amendment through in Rajya Sabha, again

The opposition has successfully moved amendment to the "**Motion of Thanks**" to the President for his address.

- The opposition's amendment was against the minimum educational qualification fixed for aspirants in local and panchayat elections in Haryana and Rajasthan polls, which was also a part of the President's address.

- It should be noted here that such amendment has been moved for the **5th time in Parliamentary history and 2nd time in the tenure of this government**.

What next?

Now, the motion of thanks on the President's address will be sent back to the President with a mention of the amendment passed.

Criticisms:

However, the government has argued that the amendment was not right since it referred to an issue which was a state subject

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.

Ethics panel to probe bribery charges against TMC MPs

Lok Sabha Speaker Sumitra Mahajan has referred the issue of alleged unethical conduct of some Trinamool Congress members to the Ethics Committee of the

House. She termed the allegations as very serious, which could impact the "very credibility" of Parliament.

About Ethics Committee:

The Ethics Committee of the Lok Sabha was constituted on 16 May 2000 as an **adhoc committee**. However, in August 2015 it was given **permanent Standing Committee status**.

- The Ethics Committee examines every complaint relating to unethical conduct of a member referred to it.
- It is also free to take up suo motu investigation into matters relating to ethics, including matters relating to unethical conduct by a member wherever felt necessary and make such recommendations as it may deem fit.
- Currently, the ethics committee in the Lok Sabha has 15 members chaired by LK Advani.

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.
Supreme Court stops Punjab from levelling SYL canal land

The Supreme Court has ordered **status quo on the land meant for the Sutlej-Yamuna Link canal**after Haryana alleged attempts by Punjab to alter its use by levelling it.

Background:

- This issue escalated when, earlier this month, the Punjab assembly passed the Punjab Sutlej Yamuna Link Canal (Rehabilitation and Re-vesting of proprietary Rights) Bill, 2016 to de-notify the land acquired to build the canal in Punjab.
- Upset with this, Haryana sought early hearing in the Supreme Court on the Presidential reference that has been pending for around 12 years now.
- Haryana argued the Bill, awaiting the Governor's assent, would negate the Supreme Court's 2004 decree calling for unhindered construction of the canal which will give Haryana its share of water.

SUTLEJ-YAMUNA LINK CANAL
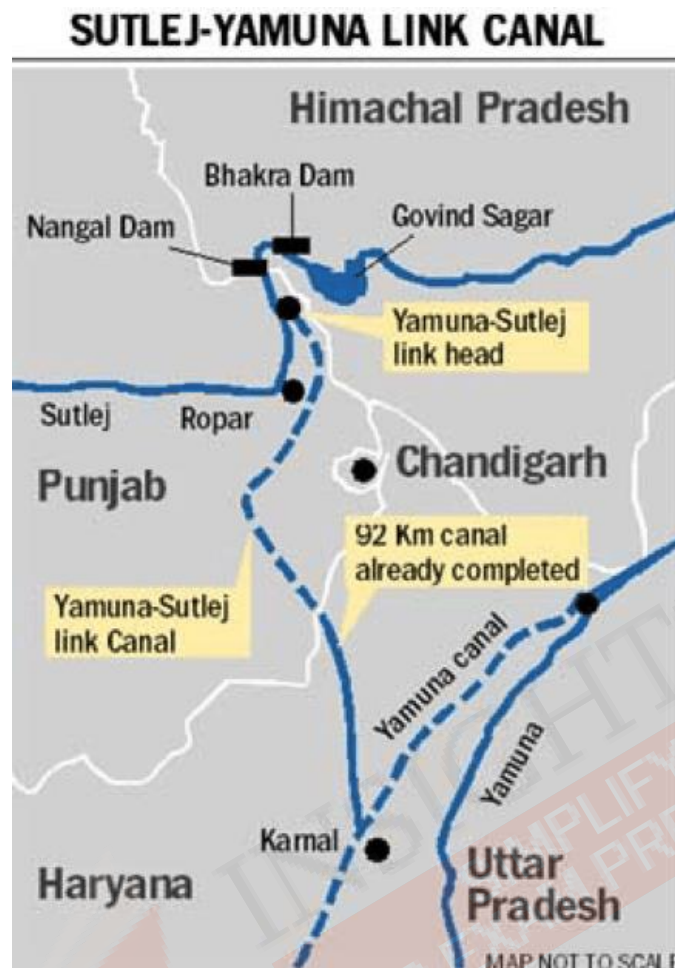
Supreme Court's recent order:

In its interim order, the court has appointed the Union Home Secretary and the Chief Secretary and the Director-General of Police of Punjab as the 'joint receiver' of land and other property meant for the canal till the next hearing.

About the Crisis:

What is the Sutlej Yamuna Link (SYL) Canal, and the controversy over it?

The creation of Haryana from the old (undivided) Punjab in 1966 threw up the problem of giving Haryana its share of river waters. Punjab was opposed to sharing waters of the Ravi and Beas with Haryana, citing riparian principles, and arguing that it had no water to spare.

- However, Centre, in 1976, issued a notification allocating to Haryana 3.5 million acre feet (MAF) out of undivided Punjab's 7.2 MAF.

- To enable Haryana to use its share of the waters of the Sutlej and its tributary Beas, a canal linking the Sutlej with the Yamuna, cutting across the state, was planned. In April, 1982, Prime Minister Indira Gandhi ceremonially dug the

ground at Kapoori village in Patiala district for the construction of the 214-km Sutlej-Yamuna Link (or SYL) canal, 122 km of which was to be in Punjab, and 92 km in Haryana.

▪ A tripartite agreement was also negotiated between Punjab, Haryana, and Rajasthan in this regard.

▪ However, following the protests in Punjab, the Punjab Assembly passed The Punjab Termination of Agreements Act, 2004, terminating its water-sharing agreements, and thus jeopardising the construction of SYL in Punjab.

Sources: the hindu.

Uttarakhand HC orders floor test, allows disqualified MLAs to take part

The Uttarakhand High Court has ordered a floor test in the Vidhan Sabha and has also allowed disqualified MLAs to take part IN IT.

▪ Harish Rawat, who was unseated from his post as chief minister, has been asked by the Court to test his majority on the floor of the House in a copybook interpretation of the **S R Bommai judgment that for the first time permitted judicial review of the imposition of President's rule**.

▪ The centre had recently imposed President's rule in Uttarakhand citing a breakdown of constitutional authority.

What next?

The required magic number is 36. That is, the Rawat government must have at least 36 MLAs in a House of 70.

How would this order affect President's rule in the state?

Since the high court did not pass any order on President's rule, legal experts say the central rule in Uttarakhand would continue. Besides, the order is only a partial relief to Rawat, who had challenged the imposition of President's rule.

▪ This is only an interim order. The final decision of the high court would come only after the disposal of the petition by rebel MLAs challenging their disqualification by Speaker.

However, according to few others, the order temporarily revives the Assembly for one day for the sole purpose of conducting the trust vote, and may even appear to be

a partial stay on the Proclamation imposing President's rule — to the extent that it orders the convening of a suspended House.

Can the assembly function when President's rule is in force?

According to clauses in Article 356 after the imposition of President's Rule, the State legislature cannot function and all its functions can only be discharged by or under the authority of Parliament.

Sources: the hindu.

PM for simultaneous LS, Assembly elections

According to a report, Prime Minister Narendra Modi is in favour of simultaneous polls for the Lok Sabha and State Assemblies.

Why?

It is due the administrative issues arising out of frequent and successive elections in various states. The Prime Minister is concerned that the way the electoral calendar of the country is set up, there are polls every year in some part of the country or the other. With the Model Code of Conduct coming into force in one State or the other and even for the Centre in some cases, this leads to administrative lethargy, and issues.

Background:

The decision is also based on the 78th report of the parliamentary standing committee of Law and Justice that had been asked to go into the issue in detail. The report was submitted in December 2015.

- The committee recommended a two-phase election schedule to make the Lok Sabha and Assembly polls coterminous, but had raised uneasiness in different political parties.

- The first general elections to the Lok Sabha was held simultaneously with all State Assemblies in 1951-52. That practice continued in three subsequent general elections held in the years — 1957, 1962 and 1967.

- However, due to the premature dissolution of some Legislative Assemblies in 1968 and 1969, the cycle got disrupted.

- In 1970, the Lok Sabha was itself dissolved prematurely and fresh elections were held in 1971. The term of the fifth Lok Sabha was extended till 1977 under Article

352. After that, the eighth, tenth, fourteenth and fifteenth Lok Sabha could complete their five year terms. The sixth, seventh, ninth, eleventh, twelfth and thirteenth ones were dissolved prematurely.

- As a result of premature dissolutions and extension of terms of both the Lok Sabha and various State Assemblies, the last 48 years have seen separate elections to the Lok Sabha and the Assemblies.

Sources: the hindu.

Paper 2 Topic: *Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.*

Election Commissioon clears PM's 'Mann Ki Baat' on Sunday

The Election Commission of India has given its approval for Prime Minister Narendra Modi's upcoming radio broadcast "Mann Ki Baat", with a condition that his address to the public should not violate the **Model Code of Conduct** in place for the coming Assembly elections in four States and a Union Territory.

- The Model Code of Conduct came into force on March 4 when the ECI announced the schedule for elections.

Model Code of Conduct (MCC):

What is MCC?

These are the guidelines issued by the Election Commission of India for conduct of political parties and candidates during elections mainly with respect to speeches, polling day, polling booths, election manifestos, processions and general conduct.

Aim: To ensure free and fair elections.

When it comes into force?

The Model Code of Conduct comes into force *immediately* on announcement of the election schedule by the commission. The Code remains in force till the end of the electoral process.

Status:

- The need for such code is in the interest of free and fair elections. However, the code **does not have any specific statutory basis**. It has only a persuasive effect.

- It contains what is known as "**rules of electoral morality**". But this lack of statutory backing does not prevent the Commission from enforcing it.

Evolution:

- The Commission issued the code for the first time in 1971 (5th Election) and revised it from time to time.
- This set of norms has been evolved with the consensus of political parties who have consented to abide by the principles embodied in the said code and also binds them to respect and observe it in its letter and spirit.
- The salient features of the Model Code of Conduct lay down how political parties, contesting candidates and party(s) in power should conduct themselves during the process of elections i.e. on their general conduct during electioneering, holding meetings and processions, poll day activities and functioning of the party in power etc.

Sources: the hindu.

Paper 2 Topic: Statutory, regulatory and various quasi-judicial bodies.
MCI has failed, rejig it, says Parliament panel

The Parliamentary standing committee on health has called for a complete restructuring of the Medical Council of India (MCI), arguing that it has failed in its mandate as a regulator of medical education and profession.

- The panel recommended that the Act under which MCI was set up be scrapped and a new legislation be drafted at the earliest.

Important observations and recommendations made by the committee:

- The committee observed that the whole focus of the MCI has been on licensing of medical colleges and ethics was completely lost out in this process.
- It recommended the immediate bifurcation of the two major areas – medical education and practice of ethical conduct by medical professionals – so that they receive full attention.
- The report also said, "If the medical education system has to be saved from total collapse, the government can no longer look the other way and has to exercise its

constitutional authority and take decisive and exemplary action to restructure and revamp India's regulatory system of medical education and practice."

- The report noted that the MCI cannot be remedied according to the existing provisions of the <u>Indian Medical Council Act, 1956</u>, which is certainly <u>outdated</u>.
- The committee also observed that "the much needed reforms will have to be led by the central government" as "the MCI can no longer be entrusted with that responsibility in view of its massive failures".

<u>About MCI:</u>

The Medical Council of India (MCI) is the **statutory body** for establishing uniform and high standards of medical education in India.

- The Council grants recognition of medical qualifications, gives accreditation to medical schools, grants registration to medical practitioners, and monitors medical practice in India.
- The Medical Council of India was first established in 1934 under the Indian Medical Council Act, 1933. The Council was later reconstituted under the Indian Medical Council Act, 1956 that replaced the earlier Act.

<u>Important functions performed by the council:</u>

- Establishment and maintenance of uniform standards for undergraduate medical education.
- Regulation of postgraduate medical education in medical colleges accredited by it..
- Recognition of medical qualifications granted by medical institutions in India.
- Recognition of foreign medical qualifications in India.
- Accreditation of medical colleges.
- Registration of doctors with recognized medical qualifications.
- Keeping a directory of all registered doctors (called the Indian Medical Register).

Sources: toi.

Constitution Bench to decide if MPs, MLAs can be disqualified upon framing of charges

The Supreme Court has decided to lay down the law on *whether the country should even wait until a corrupt legislator is convicted to have him disqualified from Parliament or Assembly.*

- A three-judge Bench has referred to a Constitution Bench the question whether a legislator facing criminal trial should be disqualified at the very stage of framing of charges against him by the trial court. Should his disqualification be kept in abeyance till he is convicted?

Background:

The court has been tightening its grip on corruption in politics from 2013 when it first held that legislators, on conviction, would be immediately disqualified from holding membership of the House without being given three months' time for appeal, as was the case before. Before this verdict, convicted lawmakers would file an appeal in the higher court and continue in the House.

- In March 2014, the Supreme Court passed an interim order that criminal trials, especially those dealing with corruption and heinous offences, involving elected representatives should be completed in a year. This order prevented lawmakers from sitting in the House as their cases dragged on.

RPA:

Section 8 of the Representation of the People Act deals with disqualification on conviction for certain offences: A person convicted of any offence and sentenced to imprisonment for varying terms under Sections 8 (1) (2) and (3) shall be disqualified from the date of conviction and shall continue to be disqualified for a further period of six years since his release.

- In 2013, the court found it unconstitutional that convicted persons could be disqualified from contesting elections but could continue to be Members of Parliament and State Legislatures once elected.

Sources: the hindu.

SC asks Centre to explore e-voting for defence personnel

The Supreme Court has asked the Centre to explore ways, including e-voting facility, to enable defence and paramilitary personnel to cast their ballot.

- Right to vote is a **statutory right granted to all citizens** but many defence and paramilitary personnel posted in far-flung and border areas are not able to exercise it.
- The Court has directed the Centre to come out with concrete suggestions within three months on how to improve the existing system of postal ballot available with defence personnel and whether e-voting could be introduced to them.

Sources: the hindu.

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

Make In India initiative gets a leg up

Finance Minister Arun Jaitley announced several proposals in the Union Budget 2016-17 to boost the government's Make in India (MII) initiative.

- To help start-ups innovate, generate employment and be key partners in the MII programme, Mr.Jaitley proposed to back them through 100% deduction of profits for three out of five years for start-ups set up during April 2016 to March 2019. He said Minimum Alternate Tax will apply in such cases.
- It has also been proposed to grant foreign investors 'Residency Status' subject to certain riders. Currently, these investors are granted business visa only up to five years at a time.
- To strengthen the MII initiative, there was an allocation of Rs.1,804 crore towards the scheme for Investment Promotion and Amended Technology Upgradation Fund.
- A modification in Customs and Excise Duty structure has also been proposed to incentivise domestic value addition and push the MII campaign.
- Changes were proposed in Customs and Excise Duty rates on certain inputs, raw materials, intermediaries/components and other goods while several procedures were simplified.

Also, to incentivise the employers to recruit unemployed persons and bring into the books the informal employees and in turn, ensure new jobs are created in the formal sector, the Centre has decided to pay the Employee Pension Scheme contribution of 8.33% for all new employees enrolling in EPFO for the first three years of their employment.

Commerce ministry to take up differential MAT on SEZs

The Commerce Ministry is all set to raise its concern with the Finance Ministry over the **differential tax** rate proposed in the budget for the **International Financial Services Centre (IFSC) to come up in a Special Economic Zone** in Gujarat, and the rest of the SEZs.

- IFSC comes under the ambit of the SEZ Act as the legislation defines it and states that the Centre may approve the setting up of an IFSC in an SEZ and prescribe requirements.

- **The Gujarat International Finance Tec-City (GIFT) in Gandhinagar (Gujarat) is the only IFSC in India.**

Background:

As part of the budget on February 29, a reduced Minimum Alternate Tax (MAT) rate of 9% was proposed for the IFSC in an SEZ in Gujarat, while retaining 18.5% MAT on all other SEZ developers and units.

- Also, the FY'17 Budget has proposed that companies located in IFSC shall not be liable to Dividend Distribution Tax (DDT).

What are demands of Commerce Ministry?

- The commerce ministry has been pitching for removal or reduction of MAT on all SEZ developers and units. It has demanded that MAT on SEZs should be either withdrawn or reduced to its original rate of 7.5%.

- It has also sought an SEZ-specific package to make sure that these tax-free enclaves are the focal point of the 'Make in India' initiative.

- Another issue is the FY'17 Budget proposal of profit-linked deductions to new units in SEZs commencing activity on or before March 31, 2020. The commerce ministry has demanded that profit-linked deductions should be available for new units in SEZs starting operations by March-end, 2023.

The commerce ministry is keen to ensure greater manufacturing sector-exports from SEZs.

State of SEZs in India:

The export-oriented SEZ sector, which has been playing an important role in boosting India's overall exports, has been witnessing a slowdown in terms of investment, exports and employment generation for the past few years.

▪ Imposition of 18.5% MAT on SEZ developers and units as well as Dividend Distribution Tax (DDT) on developers has further aggravated the problem. The imposition of MAT and DDT on SEZs has resulted in lesser number of SEZ notifications, slower operationalisation of SEZs and more applications for de-notification of approved SEZs.

▪ These taxes have also dented the investor-friendly image of SEZs and created uncertainty in the minds of foreign and domestic investors.

Sources: the hindu.

Lok Sabha clears Aadhaar Bill

Lok Sabha has finally cleared the Aadhaar Bill. Previously, the opposition in Rajya Sabha had recommended five amendments to the Bill. However, Lok Sabha has not incorporated any of these amendments.

▪ The Aadhaar Bill was certified as a money Bill by the Lok Sabha Speaker, which meant that the Upper House could only 'recommend' amendments, which are not binding on the Lok Sabha. According to the Constitution, the Speaker's veto on the issue cannot be challenged.

RAJYA SABHA'S FIVE CHANGES:

CHANGE 1: Clause 3

An individual who does not wish to continue as a holder of Aadhaar number should be permitted to have his number deleted from the Central Identities Data Repository. A certificate shall be issued within fifteen days of the request.

CHANGE 2: Clause 7

If an Aadhaar number is not assigned to or if an individual chooses not to opt for enrolment, the person shall be offered alternate and viable means of identification for delivery of the subsidy, benefits, or service.

CHANGE 3: Clause 33

For the words "national security", the words "public emergency or in the interest of public safety" be substituted.

CHANGE 4: Clause 33

The Oversight Committee (which will take a decision on whether to agree to a request to share biometric data of an individual for national security) should also include the central vigilance commissioner or the 'comptroller and auditor general'.

CHANGE 5: Clause 57

This clause be deleted

Clause 57: states that "nothing contained in this Act shall prevent the use of the Aadhaar number for establishing the identity of an individual for any purpose, whether by the state or any body, company or person."

Sources: the hindu.

Indian Air Force facing capacity crisis: U.S. expert

A U.S. expert, in his report, has said that India's aerial fighting force is inadequate on a number of parameters.

- The report, titled "**Troubles, they come in Battalions: The Manifest Travails of the Indian Air Force**", is a sharp analysis of the current state of the IAF's preparedness to face down threats from potentially troublesome neighbours.

Highlights of the report:

- The report notes, "Falling end strength and problematic force structure, combined with its troubled acquisition and development programs, threaten India's air superiority over its rapidly modernising rivals, China and Pakistan."

- It also says, "As of early 2016, the IAF was very weak and at nominally 36.5 squadrons, it is well short of its sanctioned strength, and many of its frontline aircraft are obsolete."

- On the other hand China and Pakistan have apparently fielded close to 750 advanced air defence or multirole fighters against the IAF's 450-odd equivalents, and by 2025, China may well be in a position to deploy anywhere between 300

and 400 sophisticated air craft against India, in addition to likely 100 to 200 advanced fighters by Pakistan.

According to the report, the main barriers to embarking on a successful acquisition and modernisation drive-

- Serious constraints on India's defence budget.
- The impediments imposed by the acquisition process.
- The meagre achievements of the country's domestic development organisations.
- The weaknesses of the higher defence management system.
- India's inability to reconcile the need for self-sufficiency in defence production with the necessity of maintaining technological superiority over rivals.

Recommendations made by the report:

- Be cautious about expanding the Tejas acquisition beyond six squadrons and consider enlarging the MMRCA component with the cheapest fourth-generation-plus Western fighter available.
- Expand investments in advanced munitions, combat support aircraft, electronic warfare, physical infrastructure, and pilot proficiency while being realistic about domestic capacity to produce sophisticated combat aircraft.

Air dominance is vital for India if it were to have deterrence stability in southern Asia and for preserving the strategic balance in the wider Indo-Pacific region.

Sources: the hindu.

Government Unveils New Defence Procurement Policy

The much-awaited new defence procurement policy was recently unveiled by the government with an aim to ensure transparency, fast track acquisition process and give a *push to 'Make in India'* initiative.

Key facts:

- To be applicable from April, the procurement policy lays the roadmap on how India, the world's largest arms importer, will acquire defence equipment in the future.
- The new DPP has included a new category to acquire weapons–**IDDM (Indigenously Designed, Developed and Manufactured)**. The IDDM will be the first preferred category of preference.

- The new policy also allows the Defence Acquisition Council to take a "**fast-track**" route to acquire weapons, something which was limited to only the armed forces till now.

- In a bid to cut down on the time taken for acquisition process, it mandates that all AONs (Acceptance of Necessity) of a particular platform will be **valid for only six months** as against the 12-month deadline now.

- Also, no AON will be notified until it is accompanied by a finalised RFP (Request for Proposal or tender). This means that the time taken for an RFP is cut down drastically.

- Defence export clearances will now be granted online. The policy will also include 'Start-up India' initiative.

- A review of the new DPP will be undertaken after six months.

Sources: the hindu.

Haryana assembly unanimously passes Jat quota bill

The Haryana assembly has unanimously passed a bill to provide reservation to Jat and other communities.

- The Haryana Backward Classes (Reservation in Services and Admission in Educational Institutions) Bill, 2016, was passed by voice vote in the ongoing assembly session.

Details:

- The bill provides reservation to the politically-dominant Jat community and four other communities — Jat Sikhs, Tyagis, Bishnois and Rors.

- The bill will give **statutory status** to Backward classes Block 'A', Backward classes Block 'B' and Backward classes Block 'C' by enacting the Haryana Backward Classes (Reservation in Services and Admission in Educational Institutions) Act, 2016.

- The bill provides for increase in percentage of reservation in Schedule I, II and III for Class I and II posts for BC 'A', BC 'B' and BC 'C' from 10%, 5% and 5% to 11%, 6% and 6% respectively.

- It has been also decided to increase the existing reservation of five percent for Economically Backward Persons in General Caste Category in Class I and II posts from five percent to seven percent.

The state has also requests the Central Government to include this Act in the 9th Schedule read with Article 31B of the Constitution of India.

Sources: the hindu.

Anti-lock braking system a must for two-wheelers

The government has made it compulsory for all two-wheelers, which account for the highest share of accidents in the country, to either have the anti-lock braking system (ABS) or the combined braking system (CBS) by April 2019.

Details:

- Two-wheeler manufacturers will have to fit the equipment for the existing scooter or bike models available for sale in the market by that time, and for all new models they plan to introduce from April 2018.

- For two-wheelers with an engine capacity above 125 cc, fitting the ABS will be compulsory and for those with capacities at or below 125 cc, auto manufacturers will have an option to provide either the ABS or CBS.

- The cost of two-wheelers is likely to go up between Rs.4,000 and Rs.6,000 as a result of the new norms notified by the Road Transport and Highways Ministry.

- The ABS, which helps riders maintain stability without skidding while applying the brake, will be mandatory for mopeds as well, which are typically bikes without gears.

Need for ABS in two-wheelers:

Two-wheelers are the most vulnerable among road users. According to official estimates, in 2014, 29.3%, (or about 40,000 users), of 1.39 lakh people killed on roads were two-wheeler users — the highest share followed by cars, jeeps and taxis and trucks and tempos.

- At present, ABS needs to be compulsorily fitted in tractors carrying hazardous goods or liquid petroleum gas, double decked transport vehicles and buses that ply on All India Tourist permit.

ABS:

An anti-lock braking system or anti-skid braking system (ABS) is an automobile safety system that allows the wheels on a motor vehicle to maintain tractive contact with the road surface according to driver inputs while braking, preventing the wheels from locking up (ceasing rotation) and avoiding uncontrolled skidding. It is an automated system that uses the principles of threshold braking and cadence braking which were practiced by skillful drivers with previous generation braking systems.

CBS:

A combined braking system (CBS), also called linked braking system (LBS), is a system for linking front and rear brakes on a motorcycle or scooter. In this system, the rider's action of depressing one of the brake levers applies both front and rear brakes. The amount of each brake applied may be determined by a proportional control valve. The CBS distributes the pressure, applied on the rear wheel, to the front wheel minimising the possibility of a road accident.

Sources: the hindu.

SC upholds rules to support Good Samaritans

The Supreme Court has upheld a Central notification issuing **standard operating procedure (SOP) for the protection and examination of 'Good Samaritans'** — those who help road accident victims — and make it binding on all State governments and authorities.

- The court has endorsed the January 21, 2016 notification issued by the Transport Ministry as a positive signal for a concerted effort to change the public's attitude of turning away from helping a road accident victim reach critical medical care.
- The court said wide publicity should be given by the Centre and the States about the guidelines.

Background:

The SOP was framed by the government on the orders passed by the Supreme Court on a PIL plea filed by NGO SaveLIFE Foundation in 2012, highlighting the fact that more lives of accident victims can be saved if a law can be made to protect Good Samaritans from legal and procedural hassles at the hands of police and hospitals.

- Following this, the Centre issued a series of guidelines on May 12, 2015, to protect Good Samaritans. These included assuring them anonymity and

protecting them from any civil or criminal liability for taking the victim to the nearest hospital. The government had also indicated that an SOP should be further evolved in this regard.

- In the January 16 notification, the government highlighted that bystanders or passers-by, who chose to help a person in distress on the road, should be "treated respectfully and without discrimination on the grounds of gender, religion, nationality, caste or any other."

- Other SOPs include complete anonymity in case the Good Samaritan does not want to reveal his name or details, use of video-conferencing in case of any further interaction with him by the authorities and provision for the police to examine him at his residence or office or any place of his convenience. This should be done only once and in a time-bound manner.

Sources: the hindu.

Centre to promulgate ordinance on Enemy Property Bill

The Union Cabinet has recommended repromulgating an Ordinance to amend the nearly 50-year-old Enemy Property Act to guard against claims of succession or transfer of properties left by people who migrated to Pakistan and China after the wars.

Background:

Enemy Property Ordinance was ratified by the Lok Sabha in January 2016 and when it went to Rajya Sabha, it was referred to a Select Committee. The duration of this Ordinance is going to expire in the first week of April 2016. Hence, union cabinet has decided to repromulgate the ordinance till the receipt of the report of the Select Committee.

- A bill to replace the executive order was also introduced in Parliament in the Budget session. While it was cleared by the Lok Sabha, the opposition in the Rajya Sabha forced the government to refer it to a Select Committee of the Upper House. Since there were little chances of the bill replacing the ordinance getting Parliamentary nod soon, the Rajya Sabha was prorogued recently to ensure a fresh ordinance could be issued.

An ordinance lapses if it is not replaced by an Act of Parliament within six weeks or 42 days of the beginning of a Parliament session.

Enemy Properties Bill:

Enemy Properties Bill includes amendments to plug the loopholes of the Enemy Property Act, 1968.

The amendments include:

- Once an enemy property is vested in the Custodian, it shall continue to be vested in him as enemy property irrespective of whether the enemy, enemy subject or enemy firm has ceased to be an enemy due to reasons such as death and others.

- The law of succession does not apply to enemy property. There cannot be transfer of any property vested in the Custodian by an enemy or enemy subject or enemy firm and that the Custodian shall preserve the enemy property till it is disposed of in accordance with the provisions of the Act.

- A new section has been inserted in the Bill to say that "the Custodian, may, after making such inquiry as he deems necessary, by order, declare that the property of the enemy or the enemy subject or the enemy firm described in the order, vests in him under this Act and issue a certificate to this effect and such certificate shall be the evidence of the facts stated therein".

Background:

The Enemy Property Act was enacted in the year 1968. It provided for the continuous vesting of enemy property in the custodian. The Union Government through the Custodian of Enemy Property for India is in possession of enemy properties spread across many states in the country.

- To ensure that the enemy property continues to vest in the Custodian, appropriate amendments were brought in by way of an Ordinance in the Enemy Property Act, 1968 by the then Government in 2010.

- However, the ordinance lapsed on 6 September 2010. Later on 22 July 2010, it was introduced in Lok Sabha in form of a Bill but was withdrawn and another bill with modified provisions was introduced in the Lok Sabha on 15 November, 2010. This bill was thereafter referred to the Standing Committee. However, the said bill could not be passed during the 15th term of the Lok Sabha and it lapsed.

Enemy properties:

In the wake of the Indo-Pak war of 1965 and 1971, there was migration of people from India to Pakistan. Under the Defence of India Rules framed under the Defence of India Act, the Government of India took over the properties and companies of such persons who had taken Pakistani nationality. These enemy properties were vested by the Union Government in the Custodian of Enemy Property for India. After the 1965 war, India and Pakistan signed the Tashkent Declaration on 10 January 1966. The Tashkent Declaration inter alia included a clause, which said that the two countries would discuss the return of the property and assets taken over by either side in connection with the conflict. However, the Government of Pakistan disposed of all such properties in their country in the year 1971 itself.
Sources: the hindu.

Sharmila acquitted in 2006 suicide bid case

Manipuri civil rights activist Irom Sharmila was recently acquitted in a case of attempted suicide registered in 2006 when she undertook a fast-unto-death.

▪ Sharmila launched her fast-unto-death in October 2006 demanding the repeal of the Armed Forces (Special Powers) Act.

Armed Forces (Special Powers) Act:

It is an Act empowering armed forces to deal effectively in 'Disturbed Areas'. Any area which is declared 'Disturbed' under the disturbed areas act enables armed forces to resort to the provisions of AFSPA.

Who declares an area as disturbed?

The choice of declaring any area as 'disturbed' vests both with state and central government.

Special powers provided to armed forces:

After an area comes under the ambit of AFSPA, any commissioned officer, warrant officer, non-commissioned officer or another person of equivalent rank can use force for a variety of reasons while still being immune to the prosecution.

Ambit:

▪ The act was passed on 11 September 1958 by the parliament of India to provide special legal security to the armed forces carrying out operations in the troubled

areas of Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Tripura (seven sisters).

- In 1990 the act was extended to the state of Jammu and Kashmir to confront the rising insurgency in the area.
- In Manipur, despite opposition from the Central government, state government withdrew the Act in some parts in Aug, 2004.

The government can declare AFSPA in the following conditions:

- When the local administration fails to deal with local issues and the police proves inefficient to cope with them.
- When the scale of unrest or instability in the state is too large for the police to handle.

However, the decision of the government to declare a particular area 'disturbed' cannot be challenged in a court of law.

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.

Constitution Bench to decide on National Court of Appeal

Noting that **equal access to justice for all is a fundamental right under the Constitution**, the Supreme Court recently decided to set up a Constitution Bench to debate the establishment of a **National Court of Appeal (NCA)** with regional benches to act as final courts of justice in criminal and civil cases.

Way ahead:

- Now the apex court would judicially pronounce on whether there is a need to bifurcate the higher judiciary, with the Supreme Court exclusively hearing constitutional and public law cases.
- Secondly, the apex court seems to introspect on its own role as the single, final court situated in the national capital dealing with an increasing load of cases — from criminal and civil appeal to constitutional questions of law.

Background:

The Supreme Court, in February 2016, admitted a Chennai lawyer's petition for setting up a National Court of Appeal with regional benches to act as the final courts of justice in criminal and civil cases.

About National Court of Appeal:

A National Court of Appeal, with benches in Chennai, Mumbai and Kolkata, is meant to act as final courts of justice in dealing with appeals from decisions of the High Courts and tribunals within their region in civil, criminal, labour and revenue matters.

However, the centre has been opposing this move. Why?

The government cites three grounds for rejecting the idea —

1. The Supreme Court always sits in Delhi as per the Constitution.
2. The Chief Justices of India in the past have consistently opposed the idea of a National Court of Appeal or regional Benches to the Supreme Court.
3. A National Court of Appeal would require an amendment in Article 130 of the Constitution of India which is impermissible as this would change the Constitution of the Supreme Court completely.

What the petitioner says?

- The petitioner submits that establishment of a 'National Court of Appeal' as suggested in the case of Bihar Legal Support Society would rectify the inequality in the state of affairs in as much as the said National Court of Appeal would have benches in all possible regions of the country.

- This would also considerably reduce the cost of litigation and would enable the litigants to have the services of the lawyer who appeared for them before the High Court.

- The petitioner also argues that the Supreme Court was never intended to be a regular court of appeal against orders made by the high court or the sessions court or the magistrates. It was created as an apex court for the purpose of laying down the law for the entire country.

However, legal experts feel that setting up of regional benches will dilute the constitutional superiority of the Supreme Court.

Sources: the hindu.

Paper 2 Topic: *Welfare schemes for vulnerable sections of the population by the Centre and States.*

"Mahila e-Haat", an online marketing platform for women launched

The government has launched "**Mahila e-Haat**", an online marketing platform for women.

What is it?

Mahila E-Haat is an initiative for meeting aspirations and need of women entrepreneurs which will leverage technology for showcasing products made/manufactured/sold by women entrepreneurs. It is an initiative for women across the country as a part of 'Digital India' and 'Stand Up India' initiatives.

What it does?

It is a unique online platform where participants can display their products. It will provide access to markets to thousands of women who make products and are spread all over the country but have little access to markets.

Who can participate?

Participation in e-Haat is open to all Indian women citizens more than 18 years of age and women SHGs desiring for marketing their legal products/services after indemnifying RMK from any or all acts of transaction.

Significance of this portal:

- It is web page based and has unlimited reach and can, therefore become catalyst in creating a new generation of business women.
- It will also help women to make financial and economic choices which will enable them to be a part of 'Make in India' and 'Stand Up India' initiatives.
- This unique e-platform will strengthen the socio-economic empowerment of women as it will mobilize and provide better avenues to them.
- More than 10000 Self Help Groups (SHGs) and 1.25 Lakh women beneficiaries would be benefited from the day of launch of the site itself.

Way ahead:

- Going ahead, Mahila E-Haat will be integrated with e-commerce portals to provide a larger platform for selling and buying.

- Further, it will culminate into Women's Entrepreneurs Council which will help to expand this initiative further and give it an institutional shape.

The Mahila E-Haat will also help to meet the goal of financial inclusion of women and it is a big step forward for empowerment of women.

Sources: pib.

Pradhan Mantri Ujjwala Yojana

The Cabinet Committee on Economic Affairs, chaired by the Prime Minister Shri Narendra Modi, has approved **Pradhan Mantri Ujjwala Yojana**.

Aim of the scheme:

It aims at Providing Free LPG connections to Women from BPL Households.

Who is implementing it?

The scheme is being implemented by the **Ministry of Petroleum and Natural Gas**. This is the first time in the history of the country that the Ministry of Petroleum and Natural Gas would implement a welfare scheme benefitting crores of women belonging to the poorest households.

Details:

- Under the scheme, Rs 8000 crore has been earmarked for providing five crore LPG connections to BPL households. This Scheme would be implemented over three years, namely, the FY 2016-17, 2017-18 and 2018-19.
- The Scheme provides a financial support of Rs 1600 for each LPG connection to the BPL households.
- The identification of eligible BPL families will be made in consultation with the State Governments and the Union Territories.

Significance of this scheme:

Various surveys have indicated that the poor in the country have limited access to cooking gas (LPG). The spread of LPG cylinders has been predominantly in the urban and semi-urban areas with the coverage mostly in middle class and affluent households. But there are serious health hazards associated with cooking based on fossil fuels.

- According to WHO estimates, about 5 lakh deaths in India alone due to unclean cooking fuels. Most of these premature deaths were due to non-communicable

diseases such as heart disease, stroke, chronic obstructive pulmonary disease and lung cancer. Indoor air pollution is also responsible for a significant number of acute respiratory illnesses in young children. According to experts, having an open fire in the kitchen is like burning 400 cigarettes an hour.

- Hence, providing LPG connections to BPL households will ensure universal coverage of cooking gas in the country. This measure will empower women and protect their health. It will reduce drudgery and the time spent on cooking. It will also provide employment for rural youth in the supply chain of cooking gas.

Sources: the hindu.

Supreme Court asks Centre to frame rules for child adoption

The Supreme Court has directed the Centre to frame effective regulations within three months for making inter-country adoptions foolproof and transparent.

- It has also asked the centre to put in place a "**credible mechanism**" for intra and inter-country adoption of children.

- The court also observed that the new mechanism should lay down rules and regulations similar to the Juvenile Justice (Care and Protection of Children) Act, 2015.

Background:

The order came on a PIL filed by an NGO, seeking a regulatory mechanism to deal with adoption in the country, alleging it had become a major illegal commercial activity.

- According to the new law, online registration of prospective adoptive parents (PAPs) is compulsory, including uploading all documents related to the process. Home study of PAPs will be completed within a month of registration on the Central Adoption Resource Authority (CARA) website. The new rules stipulate increase in the age of PAPs from 45 to 55 years.

What is 'adoption'?

The new juvenile law defines "adoption" as the process through which the adopted child is permanently separated from his biological parents and becomes the lawful child of his adoptive parents with all the rights, privileges and responsibilities that are attached to a biological child.

Sources: the hindu.

Health Ministry launches Longitudinal Ageing Study in India

The Ministry of Health & Family Welfare recently launched the **Longitudinal Ageing Study in India (LASI)**.

- This is the largest survey of its kind. It will survey more than 60,000elderly over 25 years plan.

About LASI:

LASI is the largest study on older population in the country. The International Institute for Population Sciences (IIPS), Mumbai in collaboration with Harvard School of Public Health (HSPH) and University of Southern California (USC), USA is undertaking this study under the aegis of the Ministry of Union Health and Family Welfare.

- LASI is jointly funded by the Union Ministry of Health and Family Welfare, the United States' National Institute on Ageing, and the United Nations Population Fund-India.

Significance of this study:

- The importance of the study derives from the increasing portion of elderly population in the country. The study will provide valuable data on their health needs, and issues faced by them given the changing social structures, and helps policymakers to draw policy tools to address their issues.
- This study will help design policies to mainstream the elderly, to reduce their vulnerabilities and enhance access to various services.
- The study will be important as it will investigate various health structures, and impact of social determinants on health of the elderly. It will also help in framing evidence-based policy.

Background:

Population ageing is taking place in nearly all the countries of the world. The global share of older people aged 60 years or over increased from 9.2% in 1990 to 11.7% in 2013 and will continue to grow as a proportion of the world population, reaching 21.1% by 2050.

- Presently, about two thirds of the world's older persons live in developing countries. By 2050, nearly 8 in 10 of the world's older population will live in the less developed regions.

- While global ageing can be seen as a symbol of medical, social, and economic advances and also has major health, social and economic consequences over the past half century, it also represents a significant policy challenge.

- Population ageing threatens to topple existing insurance and pension systems and create health system overload; therefore calls for review of existing models of healthcare, familial and social support.

- The phenomenon of global population ageing has the potential to fundamentally alter disease burdens, economies and trade, and human migration.

Indian scenario:

According to the 2011 census, the 60+ population accounted for 8.6% of India's total population or 103.84 million elderly. With currently 1.3 billion people, India is projected to become the world's most populous country within a decade.

- There are several forces driving India's population growth and changing age structure, including an upward trend in life expectancy. An Indian born in 1950 could expect to live for 37 years, whereas today India's life expectancy at birth nearly doubled to 68 years, by 2050, it is projected to increase to 76 years.

- As a result, India's population will rise from 1.3 billion today to an estimated 1.7 billion by 2050, with a much larger elderly share of around 340 million. Including the pre-retirement phase (i.e., population age 45+), the proportion will rise to over 30%, or almost 600 million persons. Between 2011 and 2050, the number of oldest old people of age 75 and above is expected to increase by 340%.

- As no sufficiently broad nationally representative dataset on older population is currently available in India, comprehensive new scientific data are needed to conduct analyses of health, economic and social challenges based on population ageing and to formulate mid- and long-term policies and programmes to address these and other challenges presented by population ageing.

Sources: pib.

Extension of time period of the Scheme "Special Industry Initiative for J&K" Udaan

The Cabinet Committee on Economic Affairs has given its approval for extension of time period of the Scheme "**Special Industry Initiative for J&K" (SII J&K) Udaan** till 2019-20. Initially the time period of Udaan was upto 2015-16.

Udaan:

Udaan is a national integration scheme with the goal to mainstream J&K youth with rest of the country. The scheme not only provides skill enhancement and job opportunity but also leads to counter – radicalization and weaning away youth of J&K from militancy.

- Udaan provides exposure to the youth of J&K to the best of corporate India and corporate India to the rich talent pool available in the State.

- So far, 67 leading corporates have partnered with National Skill Development Corporation (NSDC) under UDAAN with a commitment to train youth from the State covering Organized Retail, Banking, Financial Services, IT, ITES, Infrastructure, Hospitality etc.

- It is expected that the target of the Scheme, to train and enhance employability of 40,000 graduates, post graduates and three year engineering diploma holders, will be achieved by 2019-20.

Sources: pib.

Innovative Entrepreneurship & Skill Development Programme of MANAS launched

Dr. Najma Heptulla, the Union Minister for Minority Affairs recently launched **innovative entrepreneurship and skill development programme** of **Maulana Azad National Academy for Skills (MANAS)**– through leading national/ international experts in different skill sets.

- With this the Centre plans to skill the minority community members with speed, scale and standards across the country.

Details:

- Under this unique and first time initiative, MANAS has come up with an innovative scheme under which it proposes to use leading celebrities in various skill sets as the driving force behind the skill development projects, in their

respective fields, for the benefit of marginalised sections of minority communities.

▪ There are a large number of leading experts in different trades/skill sets, who belong to Minority Communities. They are icons for youths all over the country particularly for minority communities, in their respective fields. MANAS plans to use them in making quality training available at one's doorsteps.

▪ Also, by this path-breaking initiative, Ministry of Minority Affairs (MOMA) can utilize vast potential of existing network of Madrasa and Maktabs (both in terms of reach and numbers) by opening Skill Development Centres in Madrasa with the consent of Madrasa.

▪ Apart from bridging the trust deficit of the minority communities, MANAS will be able to provide door-step access to quality skill development training to marginalised sections of Minority communities particularly to women and girl child, for providing them gainful employment/self-employment.

About MANAS:

Maulana Azad National academy for Skills (MANAS) was established under the aegis **of Ministry of Minority Affairs (MOMA) by National Minorities Development and Finance Corporation (NMDFC)** in November, 2014, in order to fulfil the vision of "Skill India" and also achieve the over-riding goal of the Government of India "SabkaSaath – SabkaVikas". MANAS provides an institutional arrangement to meet all Skill Development/Up-gradation needs of the Minority communities in the country.

Sources: pib.

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

Huge budget cut for ICDS

India is home to about 442 million children — that constitute 39% of the country's population — but receive less than 3.26% of the budget.

▪ However, the budget allocation has steadily declined from 4.45% in 2008-2009 to 3.26% in 2015-2016, despite activists demanding higher allocations for child protection, healthcare and education.

- Analysis by HAQ — Centre for Child Rights shows that there were significant cuts in budgets of the ministries of women and child development, health and education. While the budget for WCD ministry was slashed by half, budgets for HRD were down by 17%, while that of health and family welfare has declined by 13%.

Budget cut has hit ICDS very badly. The Integrated Child Development Scheme (ICDS) has seen a 7% reduction in fund. The scheme, implemented by the Women and Child Development (WCD) Ministry, is the country's flagship intervention to improve child nutrition in the country.

Integrated Child Development Services (ICDS) Scheme:

ICDS was launched in 1975 in accordance to the National Policy for Children in India. The scheme aims at holistic development of under-six children and providing nutritional and health support to pregnant and lactating mothers.

Scheme provides for a package of **six** services:

1. Supplementary nutrition.
2. Immunization.
3. Referral services.
4. Health check-up.
5. Pre-school non formal education.
6. Health and nutrition education.

Key facts:

- Three of the six services namely Immunization, Health Check-up and Referral Services are delivered through Public Health system.

- These services are provided from Anganwadi centres established mainly in rural areas and staffed with frontline workers.

- In addition to fighting malnutrition and ill health, the programme is also intended to combat gender inequality by providing girls the same resources as boys.

- The scheme is implemented through the States/UTs on a cost sharing basis in the ratio of 50:50 for supplementary nutrition (SNP) and 90:10 for other components except in the case of North Eastern States where the share of

Central and State Government is in the ratio of 90:10 for all the components including SNP.

The predefined objectives of ICDS are:

▪ To raise the health and nutritional level of poor Indian children below 6 years of age.

▪ To create a base for proper mental, physical and social development of children in India.

▪ To reduce instances of mortality, malnutrition and school dropouts among Indian children.

▪ To coordinate activities of policy formulation and implementation among all departments of various ministries involved in the different government programmes and schemes aimed at child development across India.

▪ To provide health and nutritional information and education to mothers of young children to enhance child rearing capabilities of mothers in the country of India.

▪ To provide nutritional food to the mothers of young children & also at the time of pregnancy period.

Sources: the hindu.

Delhi government launches HPV vaccine

In a significant attempt towards prevention of cervical cancer caused by a sexually transmitted infection, the Delhi government has launched the **Human Papillomavirus (HPV) vaccination** as a public health programme.

▪ **Delhi first state to launch HPV vaccine for cervical cancer as public health programme**.

Details:

▪ As part of the programme girls of class VI in government schools will be targeted in the first phase. This will be completed in the current academic year over two phases.

▪ Through this initiative the state aims to prevent 80% of the cervical cancers.

HPV:

- Human Papillomavirus (HPV) is a common **sexually transmitted infection which causes cervical cancer**.
- According to the HPV India Report 2015 (HPV R-2015), 1,22,844 women are diagnosed with cervical cancer and 67,477 die from the disease in India every year.
- Cervical cancer is the second most common cancer among women aged 15-44 years.

Sources: bs.

Zika virus kills cells that form key brain tissue: report

Researchers in the United States have found that **Zika virus severely damages a type of neural stem cell** that gives rise to the brain's cerebral cortex.

- The researchers found that the Zika virus infects neuronal cells derived from human induced pluripotent stem cells.
- Several other questions however remain. For instance, why are the symptoms in adults so mild? How is the virus entering the nervous system of the developing foetus?

All About Zika Virus...

After West Africa's Ebola virus in 2014, another virus has begun garnering global attention–Zika. While not as deadly as Ebola, it is cause for worry especially to pregnant women because of the birth defects it has been increasingly linked to. With WHO to convene an emergency committee today to ascertain the international implications of the outbreak, here are some things you need to know about the Zika virus:

ZIKA **FIRST IDENTIFIED IN 1947 IN UGANDA'S ZIKA FOREST**, it is a virus spread by the same aedes aegypti mosquito that carries dengue and chikungunya. Unlike Ebola (contracted from infected animals and easily spread through physical contact), it is rarely deadly or contagious.

SYMPTOMS
Fever, Rash, Joint Pain, Conjunctivitis

The illness could be misdiagnosed in areas where dengue is prevalent

SPREAD OF THE VIRUS

Active transmission has been reported in **22 countries** and territories in the Americas as well as in Samoa and Cape Verde.

According to WHO, as many as **4 million** in the Americas may become infected with Zika virus during this outbreak.

If an infected individual comes to India, Zika could be spread by mosquitos biting them, acquiring the virus and then passing it on to others.

■ Reported active transmission

POSSIBLY RELATED HEALTH ISSUES

MICROCEPHALY

While a causal relationship hasn't been established, this year Brazil has reported 270 confirmed cases of Zika-related microcephaly–a rare condition where the baby is born with an abnormally small head–and is scrutinising 3,448 more cases. Babies and children with microcephaly often face challenges with brain development and motor functions growing up.

GUILLAIN-BARRÉ SYNDROME

The outbreak in Brazil also coincided with increasing reports of Guillain-Barré syndrome–a condition in which the body's immune system attacks part of the nervous system. Similar coincidences were noted during a Zika outbreak in French Polynesia from 2013–2014.

IMPLICATIONS FOR INDIA

India is a breeding ground for aedes aegypti mosquitos, raising the risk of a possible Zika outbreak here. For instance, 26,912 clinically suspected Chikungunya fever cases as well as 97,740 cases and 200 deaths by dengue recorded in 2015 alone.

ACTION TAKEN BY INDIA

Jan 29: Constituting a technical group to monitor the situation arising from Zika in other countries.

Issuing travel guidelines advising pregnant women to avoid Zika-affected countries is also a possibility.

IS THERE A CURE?

Current treatment is directed at relieving symptoms using common pain and fever medicines. There is no commercial vaccine or specific antiviral drug treatment yet. As per reports, the vaccine development period could take upwards of eight years.

THE WAY FORWARD

VACCINES

Pharma companies like GSK and Sanofi are considering developing a vaccine to combat Zika. Invio Pharma Inc is said to be taking the lead, having announced entry into clinical trials with their MERS vaccine on Jan 28 2016.

We can readily apply Inovio's technology to target other threatening infectious threats like MERS and Zika virus as well as other emergent infectious diseases

DR J JOSEPH KIM
Invio president & CEO

BIOTECH BUGS

There is speculation that aedes aegypti mosquitos genetically engineered by cos like UK-based Oxitec could also curtail the spread. This approach has reportedly lowered mosquito populations by 80% in small tests.

Sources: CDC, WHO, MOHFW, NVBDCP, New York Times, Fortune, Washington Post, Reuters, The George Institute India

Significance of these findings:

- The findings are significant given that the World Health Organisation (WHO) is set to decide, within the next few months, whether the Zika virus — historically known to be relatively benign — is indeed wholly responsible for the outbreak of microcephaly, or deformed skulls, in newborns in Brazil and other parts of South America.
- Also, this is the first lab evidence of the potency of the Zika virus.

Zika virus:

Zika virus disease is an emerging 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.

- World Health Organisation has reported 22 countries and territories in Americas from where local transmission of Zika virus has been reported.
- It is now assumed that microcephaly in the newborn and other neurological syndromes (Guillain Barre Syndrome) are associated with Zika virus infection.

Sources: the hindu.

For first time, tobacco use is down in country: Family health survey

Data from the first phase of National Family Health Survey released recently by the Union health ministry shows that the use of tobacco, the leading cause of preventable death, has for the first time begun to decline across country.

- The data shows a dip in the use of all forms of tobacco, among men and women, in the past decade. Doctors are hailing the results as one of the biggest successes in public health.

Key facts:

- At least 11 of the 13 states in the report have reported a decline in the numbers between 2005-06 and 2015-16.
- In Sikkim, there is up to 20% dip in tobacco use.
- The **only two states that showed increase in consumption were Manipur and Meghalaya**.
- The tobacco industry too has also been reporting a consistent dip in production since 2011.

Current status:

Ten years ago, nearly half the men and, at least, a quarter of the women in rural areas consumed tobacco. Today, sustained campaign against the use of tobacco — including pictorial warnings on cigarette packets, ban on smoking in public places, complete ban on the sale of pan masala in several states, high taxes, warnings flashed on cinema and TV screens and from doctors — have helped bring down the numbers.

- The first sign of success is already visible in the national cancer registry. The incidence of oral cancer among women is on a rapid decline. The Madras Metropolitan Tumour registry for instance has recorded a 33% drop in oral cancer among young women.

- Until 1986, mouth cancer was the third amongst all forms of cancer affecting women with an incidence of 7.8 per 10,000. In 2012, it did not appear in the top five. It's an indication that fewer younger women are opting for smokeless tobacco.

- However, a recent study has shown that the number of men smoking tobacco in India rising by more than one-third to 10.8 crores between 1998 and 2015. But, the study also notes that the increase is only because the population has gone up. There is no drastic increase in the prevalence of smoking across the country.

Criticisms:

However, NGOs representing the anti-tobacco lobby say cases are being under-reported. Sale of pan masala is still rampant. Pan masala comes in the form mouth fresheners. On several instances they have found tobacco branded as herbal, organic and spit free being sold to school students.

Sources: toi.

Indians could face a higher risk of diabetes-induced lung ailments

Scientists have indicated that diabetes may be impeding the normal functioning of lungs and common medicines that are used to treat insulin resistance may actually be exacerbating conditions such as asthma.

- Notably, Indians have the lowest lung function in the world even after adjusting for our smaller body size.

- The importance of these findings is that it shows for the first time that high levels of insulin are directly damaging the lung structure and function.

Details:

- Scientists suspect a link between diabetes — a condition characterised by the hormone insulin failing to regulate blood sugar in the body — and impaired lung function that makes Indians particularly vulnerable to respiratory diseases.

- Recently, there have been a number of studies showing that when adjusted for body size, Indians have among the smallest lungs in the world or nearly a third smaller than a white European of similar size. This means a reduced efficiency to filter oxygen from ingested air, an accelerated decline in lung function with age as well as an increased propensity to contract respiratory diseases.

- It has also been found that most medicines to treat diabetes attempt to control the excess blood sugar by pumping in ever-increasing quantities of insulin into the body. That only makes matters worse. There's no solution to this other than exercise and a diet that strikes a balance between protein and carbohydrates.

Background:

Diabetes has emerged as a serious disease burden for India over the past two decades. While diabetes rate has increased by around 45% globally, it jumped 123% in India between 1990 and 2013. The International Diabetes Federation showed that nearly 6.9 crore people in India were suffering from diabetes in 2015 and their ranks are expected to swell to 12.5 crore by 2040.

Sources: the hindu.

Cap profits, cut drug prices: Panel

An inter-ministerial committee, which was set up to study steep hike in trade margins and suggest ways to increase affordability of expensive medicines and medical devices across the country, has submitted its report to the government.

- Among others, it has recommended **capping of trade margins for costly drugs at 35% of MRP**(maximum retail price). This move could significantly bring down prices of expensive medicines.

Highlights of the report:

- While acknowledging that trade margins fall under the domain of industry, the report highlights "consumer protection" as an area where government interventions and regulations are required, mainly in sectors like drugs or pharmaceuticals, where consumer has little choice.
- Though the report suggests capping trade margins on expensive drugs at 35% of MRP, it also recommended a different slab for lesser priced medicines. For products priced at Rs 2 per unit, the margin may be capped at 50%.

Background:

Under the previous price regime, trade margins were capped at 16% and 8% for drug retailers and wholesalers, respectively. However, this was only on scheduled drugs, prices of which were directly capped and monitored by the government. On other drugs, retailers were allowed a margin of 20%, whereas wholesalers were entitled to a margin of 10%.

- However, since the new drug pricing policy came into place in 2013, there is no ceiling on the trade margin. Instead, the regulator National Pharmaceutical Pricing Authority (NPPA) caps prices based on the average price of all medicines in a particular segment with more than 1% market share.
- It is estimated that this gap has allowed trade margins of up to 400-500% on certain medicines which are already exorbitantly priced.

Need for capping:

While medicines constitute around 60% of the total out-of-pocket expenditure incurred by individuals on healthcare, trade margins contribute to almost 20-25% of a medicine's price. Experts say trade margins also create a huge disparity in prices of medicine brands available in the market. Pharmaceutical companies often use this window to push their brands through retailers as well as doctors.

Way ahead:

The government is now trying to narrow the trade margin gap and pass on the price benefit to consumers. After incorporating suggestions, the proposal will take the shape of a Cabinet note and a final decision will be taken after that.

- Once trade margins are regulated, medicine prices of different brands are likely to come at par largely.

The Indian drug retail market is currently pegged at over Rs 1 lakh crore annually.

Sources: toi.

Kodaikanal mercury poisoning: HUL, ex-staff sign settlement

Hindustan Unilever Limited (HUL) has finally entered into a settlement to provide "undisclosed" ex-gratia amount to the victims consisting of future health care benefits.

- According to a joint statement issued by the HUL and the employees association, the settlement has been entered into on humanitarian considerations to put an end to the long-standing matter pending before the court for several years, in view of the suggestion of the Madras High Court.

Background:

- The company was facing a 'class action litigation' moved by the former workers of its thermometer factory at Kodaikanal who were allegedly exposed to toxic mercury vapour during their employment.
- This is the first ever class action litigation moved by industrial workers against occupational health exposure.

What happened- timeline:

Timeline:

- 2001- TNPCB shuts down the HUL thermometer factory after sale of mercury contaminated glass to scrap dealers is detected. Health study of workers done.
- 2003- Large amount of mercury scrap sent back to the U.S.
- 2006- Ex-employees move Madras High Court against Unilever. Health effects such as miscarriages, kidney and nervous system damages, mental disability in children etc. stated
- 2011- Committee constituted by Ministry of Labour concludes there was prima facie evidence of mercury-related ailments in workers.

Mercury- basic facts:

- Mercury is a chemical element with symbol Hg and atomic number 80.
- It is commonly known as **quicksilver and was formerly named hydrargyrum**.

- Mercury is the **only metallic element that is liquid at standard conditions for temperature and pressure**. The only other element that is liquid under these conditions is bromine.

- **Mercury occurs in deposits throughout the world mostly as cinnabar** (mercuric sulfide).

- Mercury poisoning can result from exposure to water-soluble forms of mercury (such as mercuric chloride or methylmercury), inhalation of mercury vapor, or eating seafood contaminated with mercury.

- Mercury is used in thermometers, barometers, manometers, sphygmomanometers, float valves, mercury switches, mercury relays, fluorescent lamps and other devices. It is also used in lighting: electricity passed through mercury vapor in a fluorescent lamp produces short-wave ultraviolet light which then causes the phosphor in the tube to fluoresce, making visible light.

- Mercury is a very **rare element in the Earth's crust**. It accounts for only about only 0.08 parts per million (ppm).

- It is a relatively **poor conductor of heat**. Most metals are excellent thermal conductors.

Effects of Mercury on Health:

- Exposure to mercury – even small amounts – may cause serious health problems, and is a threat to the development of the child in utero and early in life.

- Mercury may have toxic effects on the nervous, digestive and immune systems, and on lungs, kidneys, skin and eyes.

- Mercury is considered by WHO as one of the top ten chemicals or groups of chemicals of major public health concern.

- People are mainly exposed to methylmercury, an organic compound, when they eat fish and shellfish that contain the compound.

Sources: the hindu.

Punjab notifies swine flu under Epidemic Disease Act

The Punjab government has notified **swine flu (H1N1) under the Epidemic Disease Act**. The notification in this regard was issued by the Health and Family Welfare Department.

What the notification says?

- All hospitals (government as well as private) will have to inform the Department of Health about a case of ILI (Influenza like Illness) having chronic diseases, so that such cases are treated at the earliest and proper guidelines of the government is followed.
- All hospitals will have to keep a suspected as well as confirmed case of swine flu in isolation in order to contain the spread of the disease.
- All hospitals will have to inform the Health department in case a suspected or confirmed case of swine flu is reported.
- Also, the treatment of swine flu is provided free of cost to all the patients as recommended by the Government. All private and Government hospitals will have to abide to this notification.

Background:

The notification has been issued by the state health department based on the recommendations of an advisory committee. The department had constituted a state advisory committee under the chairmanship of Dr. D Behera.

- The committee had observed that swine flu patients, who suffered from other chronic diseases, had a high mortality rate as compared to patients who did not have chronic diseases.
- It was also observed that patients who were treated by private doctors were referred to higher centres only when they became critical, thereby increasing the death rate.

Swine Flu:

Swine Influenza (swine flu) is a respiratory disease of pigs caused by type A influenza viruses that causes regular outbreaks in pigs. H1N1 is a flu virus. When it was first detected in 2009, it was called "swine flu" because the virus was similar to those found in pigs.

- Transmission from Pigs to Humans: The H1N1 virus is currently a seasonal flu virus found in humans. Although it also circulates in pigs, one cannot get it by eating properly handled and cooked pork or pork products.
- In 2009, H1N1 was spreading fast around the world, so the World Health Organization called it a pandemic.

Spread:

- Swine flu is contagious, and it spreads in the same way as the seasonal flu.
- When people who have it cough or sneeze, they spray tiny drops of the virus into the air. If a person comes in contact with these drops or touch a surface that an infected person has recently touched, the person can catch H1N1 swine flu.
- Pregnant women who contract the H1N1 infection are at a greater risk of developing complications because of hormonal changes, physical changes and changes to their immune system to accommodate the growing foetus.

Sources: the hindu.

Rotavirus vaccine launched under immunization drive

Union health ministry has launched the **rotavirus vaccine-Rotavac-** as **part of its universal immunisation programme** to prevent diarrhoeal deaths due to the virus which claims lives of nearly one lakh children every year.

Key facts:

- The vaccine has been developed **indigenously** under a public-private partnership by the ministries of science and technology and health and family welfare.
- The vaccine will be **initially introduced in four states** – Andhra Pradesh, Haryana, Himachal Pradesh and Odisha. Its coverage will be expanded to the entire country in a phased manner.
- An estimated 8.53 lakh children under the age of one will be administered the vaccine annually at 6, 10 and 14 weeks.

Significance of this vaccine:

- Adding this life-saving vaccine to **Universal immunisation programme** will not only improve the health of children but also reduce hospitalisation and other conditions associated with diarrhoea due to rotavirus such as malnutrition and

delayed physical and mental development among children. Besides, reduced hospitalisation eases the economic burden on the family and the health cost burden on the country.

▪ While the vaccine was already available in open market, the local manufacturing and free distribution under the centrally-sponsored immunisation programme is expected to further bring down prices.

*The **Rotavac is in addition to three new vaccines** that have been introduced in India's Universal Immunisation Programme (UIP) including Inactivated Polio Vaccine (IPV), Measles, Rubella (MR) vaccine, and Adult Japanese Encephalitis (JE) vaccine. With these new vaccines, India's UIP will provide free vaccines against 12 life threatening diseases, to 27 million children annually, the largest birth cohort in the world.*

About Rotavirus:

Rotavirus is a leading cause of severe diarrhoea and death among children less than five years of age. It is responsible for around 10% of total child mortality every year. In 2014, nearly 80,000 children died due to to rotavirus, whereas about 9 lakh were hospitalised due to episodes of severe diarrhoea.

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.

Sources: the hindu.

Skin bank

Karnataka recently got its *first* **skin bank, the** <u>sixth</u> **in the country**. It was inaugurated at the State-run Victoria Hospital.

- Doctors hope that the skin bank may help save the lives of countless burn victims, as harvested skin is the best form of "biological dressing" available today.
- Although artificial skin is available, it is prohibitively expensive. The government has agreed to fund all skin grafts done at the skin bank. A nominal charge may be executed.

<u>Working of the skin bank:</u>

- Like any other <u>organ donation</u>, skin donation needs to be pledged by a living person or needs to be offered for donation by the family soon after death.
- The skin is harvested within 6 hours of death either at hospital or home. The harvesting is done from hidden areas such as the back and the thigh with no bleeding or deformity to the body. The skin donation does not hamper the rituals of last rites.
- The process is fairly simple and takes less than 45 minutes. The donor could be anyone above 16 years of age.
- The donor should not have skin disease or skin cancer and should be negative for HIV and Hepatitis C.
- No blood group matching is required.
- The harvested skin is processed and stored as per international protocol in the skin bank ready for dispensing and safe use in burns care as the best biological dressing. This dressing not only saves the life but also relieves the pain, reduces infection increasing chances of survival significantly, especially when the burn area exceeds 40%.

Sources: the hindu.

Norms for clinical trials eased

With the aim to speed up innovation and research in India, the Health Ministry has amended the **Drug and Cosmetics Act**, exempting clinical trials conducted at

academic institutions from taking the hitherto mandatory permission from the Drug Controller General of India (DCGI).

Background:

The latest amendment to the Drug and Cosmetics Act follows recommendations by the Professor Ranjit Roy Choudhury Committee, which had suggested that academic research should be approved by the Institutional Ethics Committees.

- The once booming clinical trials in India came under the Supreme Court scrutiny in 2013, after at least 370 deaths were attributed to Serious Adverse Events (SEAs) during such trials.
- In September 2013, the apex court ruled that no new clinical trials be permitted until the regulatory mechanism was reformed.

Criticisms:

- Public health experts say the move is a setback for those working towards a safer, more transparent clinical trials regime.
- With the latest amendment chances of misuse are also higher. The only defence for this decision can be that this is academic, not commercial, research.

Violation of rights:

In 2013, the Supreme Court banned trials after a public interest litigation petition brought to light that trials conducted in various parts of the country had violated patient rights as informed consent was not taken, and the patients subjected to clinical trials included newborns, children, pregnant women and mentally challenged persons.

Sources: the hindu.

Paper 2 Topic: Important aspects of governance, transparency and accountability, e-governance- applications, models, successes, limitations, and potential.

ACB by Karnataka

The Karnataka government has set up an **Anti-Corruption Bureau** to provide a transparent and efficient administration.

Details:

The ACB will be a **statutory authority** to investigate graft offences. It has been placed under the direct **supervision of the Department of Personnel and**

Administrative Reforms (DPAR) where a vigilance wing, headed by a secretary-level officer will be in charge of the new body and will report to the chief minister through the chief secretary.

▪ However, the ACB will have no power to initiate a probe on decisions taken or recommendations made by public servants, without prior permission from the appointing authority.

▪ An Inspector General of Police (IGP) rank officer will head the vigilance cell within ACB and will report to the newly created Vigilance Advisory Board, headed by the chief secretary.

▪ ACB will be headed by an Additional Director General of Police-rank officer. It will have an IGP rank officer, 10 superintendents of police and a 322-member force.

Background:

Though Karnataka was the first state to set up an anti-corruption watchdog – the Lokayukta (ombudsman) in 1984 under the Karnataka Lokayukta Act (KLA), there is also the Prevention of Corruption Act empowers police to investigate graft charge against officials.

▪ The KLA and PC Act are different legislations, as the former empowers the quasi-judicial Lokayukta to only inquire into complaints against public servants but does not allow criminal investigation against them and others accused of seeking or taking bribe.

▪ Though the state government entrusted the investigation powers into corruption charges to the police wing of the state Lokayukta, the Supreme Court in the **Rangaswamaiah versus Karnataka Lokayukta case in 1988** held that police officers probing cases under the PC Act were autonomous.

▪ The Karnataka High Court had also held that the Lokayukta did not have the jurisdiction to supervise criminal investigation under the PC Act through its police wing on the basis of the top court's Rangaswamaiah judgement.

▪ The state government has therefore decided to separate the two roles by forming the Anti Corruption Bureau (ACB) on the lines of the central government.

Criticisms:

The creation of new body, however, is not free from criticisms. Activists argue that the effectiveness of the Anti-Corruption Bureau (ACB), now invested with powers to probe corruption cases against public servants, will eventually depend on the whims and fancies of the State government, which will be directly overseeing these probes.

- The agency can also be selectively used to target or safeguard those accused of corruption, they argue.
- Not just that. All the cases registered by the Lokayukta police under the Prevention of Corruption Act, 1988 will now be transferred to the ACB.
- The Lokayukta police wing will now be reduced to assisting the Lokayukta in their probes, under the Karnataka Lokayukta Act, 1988, which even the former Lokayuktas agree is toothless in fighting corruption.

Sources: the hindu.

Depot Online System to bring FCI foodgrain management and distribution online launched

The Centre has launched an online System to automate all the operations of FCI depots. The project is named "**Depot Online**". It is an important project under Digital India initiative of Government.

Highlights of the Depot Online System:

- The system will automate/streamline all the activities during the stock inflow/outflow by road.
- The system will provide an efficient way to monitor & track the movement of items by rail.
- Godown operation such as dumping management, stack management, spillage management, stack suggestion, storage loss calculation etc. will be automated. Stock position/occupancy of the shed will also be available on real time basis.
- The application will integrate with the weighbridge installed within the depot.
- The system will track chemical spraying, fumigation & procurement quality check.
- The system will keep track of all the millers/Agency that are associated with the depots. Miller/Agency will be able to log in into the system & enter required details.

- System will provide Dash board for managerial staff along with basic MIS reports such as daily stock receipt, daily stock issue, quality related reports etc.

Benefits:

- Facilitate the depot management for FCI, helps in speeding up operations, Free up manpower from laborious data collation and report preparation thus, saving operational costs by proper planning & optimizing the administrative.

- Integrated view of end to end processes, use of workflow, notification and alerts and seamless connection between depots and district/regional offices of FCI.

- Capture data at source and in real time through Handheld Devices, reduce redundancy.

- SMS alerts will help field staff to take timely action.

- Will help save costs and prevent leakages.

Sources: pib.

Loan agreement with World Bank

India has signed a loan agreement of 35 million dollars with World bank for "Madhya Pradesh Citizen Access to Responsive Services Project".

- The project size is USD 50 million, of which USD 35 million will be financed by the Bank, and the remaining amount will be funded out of State Budget. The project duration is 5 years.

About the Project:

- The objective of the project is to improve access and quality of public services in Madhya Pradesh through implementation of the 2010 Public Service Delivery Guarantee Act.

- The project is expected to deliver key results in terms of improving access to services and citizen outreach, simplification of Government services, performance management and strengthening the capacity of implementing agencies.

- The project has been designed as a result based financing programme, under which funds will be released on achievement of agreed results.

Sources: pib.

Karnataka develops mobile app to monitor rural employment scheme

A mobile application developed by the Karnataka Rural Development and Panchayat Raj Department has drawn the attention of the Union government.

- Officials of the Union Ministry of Rural Development have sought a report on the unique features of the App, titled '**MGNREGA M-platform.**'

Details:

The App, titled '**MGNREGA M-platform**,' helps officials monitor the Mahatma Gandhi National Rural Employment Guarantee Scheme, and allows the beneficiaries to monitor progress *at every stage*.

- It has been devised to increase transparency, reduce fund diversion and interference by middlemen.
- It can also be used to *ensure automatic payment of wage*s to labourers by transferring data to the central server.

How it operates?

- If a beneficiary plans to build a pond in his field, he does so by telling the Panchayat Development Officer (PDO) and starts feeding data through pictures.
- He posts 'before and after' pictures at every stage of construction. Once the construction is complete, he poses at his pond and uploads the picture to the M-platform.
- This initiates the process of payment of wages and material cost to him. The money is transferred electronically to his account.

Salient features:

- The most important aspect of the app is citizen interface. It helps the labourers or below poverty line families to communicate with senior officials and tell them how they are progressing.
- This also speeds up the process and ensures that there is no misuse of funds.
- The app also helps collate data for the government. Officials can get real-time feedback.

Sources: the hindu.

Paper 2 Topic: India and its neighborhood.

Bangladesh seeks Teesta water pact with India

After the resolution of the land boundary and maritime issues, Bangladesh is now looking up to India for an "**immediate signing**" of the **Teesta water-sharing accord**, which the two governments had agreed over four years ago.

- The demand for early signing of the pending deal was made by Foreign Minister A.H. Mahmood Ali and State Minister for Foreign Affairs Shahriar Alam at the recently concluded "**India-Bangladesh dialogue**".

Background:

It all began when West Bengal started constructing a barrage across the Teesta River. Bangladesh opposed the construction as few regions in the country were dependent only Teesta River water for agriculture.

- However, after negotiation, an ad-hoc agreement was reached. As per the agreement, 36% of water of the Teesta flows was allocated to Bangladesh, 39% to India and a further 25 % remained unallocated.

- But even this deal has remained pending for more than 2 decades. After many unsuccessful attempts to reach a consensus on the issue, a new bilateral interim deal was to be signed in 2011 to reach an equitable sharing of the water. But it was once again put on hold as the chief minister of West Bengal Mamata Banerjee opposed the deal.

- Later, in 2013, an agreement was drafted which allowed for the 50:50 allocation of teesta waters between the countries during the lean season, when the real problems of allocation crop up. However, that was not acceptable.

- West Bengal has been opposing the treaty fearing that the loss of higher volume of water to the lower riparian would cause problems in the northern region of state, especially during drier months. It is estimated that the Teesta River has a mean annual flow of 60 billion cubic metres but a significant amount of this water flows only during wet season i.e. between June and September, leaving scant flow during the dry season i.e. October to April/May wherein the average flow gets reduced to about 500 million cubic metres (MCM) per month. This creates issues of equitable sharing during lean season.

- Teesta water is also crucial for Bangladesh, especially in the leanest period from December to March when the water flow often temporarily comes down to less than 1,000 cusecs from 5,000 cusecs.

Teesta River- Key facts:

- **India and Bangladesh share 54 rivers between**

- Teesta originates from Kangse Glacier, Charamu Lake in Sikkim. It flows through the northern parts of West Bengal before entering Bangladesh.

- It enters Bangladesh, joins Brahmaputra, and ends in Bay of Bengal.

- After Brahmapurta, Ganges and Meghna; **Teesta is the 4th largest river in Bangladesh**.

- The river is a major source of irrigation to the paddy growing greater Rangpur region of Bangladesh.

- The river forms the border between Sikkim and West Bengal before joining the Brahmaputra as a tributary in Bangladesh.

Sources: the hindu.

Sharp drop in aid to SAARC nations

The budget tabled in parliament has slashed India's development assistance to all SAARC neighbours. Maldives, Bangladesh and Nepal are worst hit by cuts.

- The slashing of the assistance to SAARC countries is in line with the cut in Budget to the Ministry of External Affairs this year that has fallen by about Rs. 500 crore, if one counts the allocation for the Ministry of Overseas Indian Affairs (MOIA) that was merged with the MEA this year.

- Allocation to Nepal has seen a drop of 28.6%. Sri Lanka and the Maldives have seen cuts of 54% and 78.1% compared with the previous year. And even the countries with the lowest GDP, Afghanistan and Bhutan, saw cuts this year of 23% and 10.8% respectively.

- The one exception to the Budget proposals is Myanmar (not a SAARC nation), and saw a major 48% increase in development aid, due to the government's focus on the **Kaladan multi-mode transport corridor project**, as well as the '**Trilateral Highway**' project.

- This cut is also likely to affect **Bhutan, where hydel projects such as Punatsangchhu I and II or the massive 720 MW Mangdechu** are at the preliminary stages of progress.
- However, according to SAARC officials, the **Salma hydel power project in Afghanistan** which was nearing completion, might be the least affected.

Way ahead:

MEA has clarified that it will continue with all its aid programmes for all the neighbouring countries, and if the need arises for additional funds, then at the revised estimates stage, it will seek the additional funds.

SAARC- Key facts:

The South Asian Association for Regional Cooperation (SAARC) is an economic and geopolitical organisation of eight countries that are primarily located in South Asia or the Indian subcontinent.

- The SAARC **Secretariat is based in Kathmandu**, Nepal.
- The **combined economy of SAARC is the third largest** in the world in the terms of GDP (PPP) after the United States and China and fifth largest in the terms of nominal GDP.
- SAARC nations comprise **3% of the world's area and contain 21% (around 1.7 billion) of the world's total population and around 9.12% of the global economy as of 2015**.
- India makes up over 70% of the area and population among these eight nations.
- The SAARC policies aim to promote welfare economics, collective self-reliance among the countries of South Asia, and to accelerate socio-cultural development in the region.
- The SAARC has also developed external relations by establishing permanent diplomatic relations with the EU, the UN (as an observer), and other multilateral entities.
- The member states are Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- States with observer status include Australia, China, the European Union, Iran, Japan, Mauritius, Myanmar, South Korea and the United States.

Sources: the hindu.

India-Bangladesh drill in Sundarbans

A three day long joint exercise, the first of its kind, between Border Guard Bangladesh (BGB) and Border Security Force (BSF) of India is underway in the Sundarbans border area.

- The exercise is titled '**Sundarban Maithri**' (Sundarbans Alliance). This is the first time such an exercise is taking place between the two border forces.

The exercise aimed at **four aspect**s – to asses the problems at the risky areas of the Sunderbans, increasing patrolling in the area by both parties, raiding suspicious cargo and trawlers on the Bangladesh-India sea transportation route jointly and be aware of the forest camps of the partner country.

Significance of these exercises:

- The exercise is held with the aim of finding better border managerial mechanisms for the two countries.

- Such exercises would help the forces understand each other properly and maintain a healthy relation at the border. These joint activities, especially in the Sundarbans area would contribute to the prevention of cross-border crimes and expand border security activities more effectively.

- The decision to hold the exercise in Sunderbans is also crucial as the riverine terrain poses a challenge for patrolling the borders. There are three floating border outposts deployed by the BSF in the Sunderbans, to maintain a vigil in the channel of rivers Kalindi, Ichhamati, Raimangal and Hariabhanga.

Sources: the hindu.

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

India kicks off Raisina Dialogue

India is hosting a first of its kind conference on Geo politics in the capital, called the Raisina Dialogue which will have invitees from various other countries also.

- This international conclave on geopolitics and geo-economics will be hosted in Delhi.

About the Conference:

Envisioned as India's flagship conference of geopolitics and geoeconomics, the Raisina Dialogue 2016 is designed to explore prospects and opportunities for Asian integration as well as Asia's integration with the larger world.

- It is predicated on India's vital role in the Indian Ocean Region and how India along with its partners can build a stable regional and world order.

- The 2016 conclave will focus on Asia's physical, economic, digital connectivity and fostering common global spaces with an emphasis on Asia.

- The two-day annual conference is a multistakeholder, cross-sectoral meeting involving policy and decision-makers, including but not limited to Foreign, Defence and Finance Ministers of different countries, high-level government officials and policy practitioners, leading personalities from business and industry, and members of the strategic community, media and academia.

Sources: the hindu.

Memorandum of Understanding (MoU) between India and United Arab Emirates (UAE)

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has given its ex-post approval for the Memorandum of Understanding (MoU) between India and United Arab Emirates (UAE) on Technical Cooperation in Cyber Space and Combating Cyber-Crime signed last month.

Details:

- This agreement would provide help in handling of the issues related to the cyber-crime between the two countries.

- As per the MoU, both the countries shall cooperate in cyber space and combating cyber-crime in all forms, particularly through coordination and exchange of information in relation with cyber crime, cooperation and training in cyber-crime investigation, etc. between India and UAE.

- The **Ministry of Home affairs will be the nodal agency** on the Indian side responsible for the implementation of this agreement.

The enhancement of technical cooperation between India and UAE in cyber space and combating cyber-crime comes in the wake of the serious threat of cyber-crime on the security, interest and safety of the people.

Sources: pib.

Memorandum of Understanding between India and IMF

The Union Cabinet has given its approval for entering into the Memorandum of Understanding (MoU) between India and International Monetary Fund (IMF) for setting up of **South Asia Regional Training and Technical Assistance Center (SARTTAC) in India** by the IMF.

- The cabinet has also authorised the Finance Minister to approve related decisions in respect of India's contribution for setting up of the centre, including Letter of Understanding for financial contribution by India, site of the SARTTAC, representative of India on the Steering Committee on SARTTAC, etc.

About SARTTAC:

The SARTTAC will be a **collaborative venture between the IMF, the member countries that is Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka and development partners for supporting the capacity development needs of the members**.

- Additional member countries could join SARTTAC at a later stage.
- SARTTAC will also selectively cater to the capacity building needs at the State level, especially in India.
- Also, capacity development will ensure innovative solutions to financial, fiscal and monetary issues with the use of information technology (IT) and innovative techniques.

IMF has said that it will undertake the best practices from the South Asian region and across the globe to establish the centre.

Sources: pib.

Signing and Ratification of the BIMSTEC Convention on Mutual Legal Assistance in Criminal Matters

The Union Cabinet has given its approval for signing and ratification of the **Bay of Bengal Initiative on Multi Sectoral Technical and Economic Cooperation (BIMSTEC) Convention on Mutual Legal Assistance in Criminal Matters**.

- **The Ministry of Home Affairs has been designated as the Central Authority** under Article 15 of the Convention.

Details:

- The Convention aims to extend widest measures of assistance to each other through mutual cooperation for enhancing capability and effectiveness of the Member States in investigation and prosecution of crimes, including crimes related to terrorism, transnational organized crime, drug trafficking, money laundering and cyber-crimes.

- This will also promote the establishment of regional arrangements for mutual assistance in criminal matters which will greatly contribute to more effective cooperation in the control of criminal activities.

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: pib.

India collaborates with Japan on Andamans project

The governments of India and Japan are in talks to collaborate in future about upgrading civilian infrastructure in the strategically located Andaman and Nicobar Islands.

Details:

- The first project being discussed is a modest one — a 15-megawatt diesel power plant on South Andaman Island. However, the development signals a policy shift on the part of the Indian government, which has so far not allowed any foreign investments in the Andaman and Nicobar Islands.
  - The project is also testimony to the unfolding relationship between India and Japan, which is also funding a $744 million road building project in the northeastern Indian border regions of Mizoram, Assam and Meghalaya.

Importance of these islands:

- The Indian archipelago is seen as a critical asset to check the Chinese from expanding into the Indian Ocean.
- The islands in the Andaman islands have regularly been visited by submarines belonging to the People's Republic of China, which caused India to step up its surveillance in the region.

- The Andaman and Nicobar Islands are <u>northwest of the Strait of Malacca,</u> offering control of a so-called <u>choke point</u> that is one of China's greatest marine vulnerabilities.

Partnership between India and Japan has matured over the years. Japan has become a considerable source of foreign investment for major infrastructure initiatives in India. Notably, Tokyo is partly underwriting the <u>Delhi-Mumbai Industrial Corridor,</u> which is among the largest infrastructure projects in the world. Moreover, India continues to be a major recipient of Japanese <u>official development assistance (ODA)</u> loans. Since 2010, Japanese ODA loan aid to India has been increasing every year. Sources: the hindu.

<u>Rapid increase in research tie UPS with Saudi Arabia</u>

A study commissioned by the Department of Science and Technology (DST) and conducted by Thomson Reuters has revealed that, in the last decade, India has seen a 10-fold increase in its research collaboration with Saudi Arabia.

<u>Details</u>:

- In the period 2005-2008, Saudi Arabia was only the 20th most prolific contributor of India, with 123 jointly-authored papers involving Indian and Saudi Arabian researchers. This has skyrocketed to 1,303 in 2013-2014, making the oil rich kingdom India's 12th most important contributor, surpassing Switzerland, Russia, The Netherlands and Poland. It means Saudi Arabia contributes now 1.25%— a 10-fold increase.

- For their analysis, the report employs a tool called '**Web of Science**', a popular, online search tool, used often by scientists to search for research related to their sub-fields. The most prolific Saudi Arabian university mentioned in the analysis is the King Saud University, which is now among the top collaborators with Indian institutions.

- While the Indian institutions, who've been involved with Saudi Arabia, are wide ranging such as the IITs, Council of Scientific and Industrial Research and the Delhi University, there's been a significant increase in collaborations involving researchers at the Aligarh Muslim University and Jamia Millia Islamia and many Saudi Arabian universities.

Sources: the hindu.

India-UAE agreement for $75 billion investment in NIIF gets clearance

The Union Cabinet has given its ex-post facto approval for a Memorandum of Understanding (MoU) between India and the United Arab Emirates (UAE) to mobilise up to $75 billion long-term investment in the National Investment and Infrastructure Fund (NIIF).

- The MoU was signed in February during Prime Minister Narendra Modi's visit to UAE.

Details:

- The MoU will help establish a transparent and high-level framework and collaboration platform under which both countries intend to explore ways to facilitate and expand the participation of UAE's investment institutions in appropriate infrastructure projects and institutions in India including NIIF.

- A joint working group comprising of the concerned representatives of both parties would take forward cooperation under this MoU and to discuss and agree the terms, principles and criteria jointly.

About NIIF:

- The Union Cabinet, in July 2015, had approved creation of National Infrastructure and Investment Fund (NIIF) as a trust that will have a corpus of Rs 20,000 crore.

- The Fund aims to attract investment from both domestic and international sources.

- The government's contribution would be limited to 49% of the subscribed capital.

- The government will seek participation from strategic investors such as sovereign fund, quasi sovereign funds and multilateral or bilateral investors, which can help leverage this fund to many times.

- Cash-rich PSUs, pension funds, provident funds, National Small Saving Fund will be able to pick up stake in the fund.

- The government has budgeted to contribute Rs.20,000 crore to the fund in the current fiscal year while another Rs.20,000 crore is expected to be raised through sovereign wealth funds.
- The objective of NIIF is to maximize economic impact mainly through infrastructure development in commercially viable projects, both greenfield and brownfield, including stalled projects, NIIF would solicit equity participation from strategic anchor partners.

Sources: pib.

MoU between India and UAE

The Union Cabinet has given its ex-post-facto approval to the Letter of Intent signed in February 2016 between the Ministry of Skill Development and Entrepreneurship of India and the National Qualifications Authority of the United Arab Emirates (U.A.E).

- The Letter of Intent will strengthen relations between the two countries and pave the way for bilateral cooperation between the two countries on skill development and recognition of qualifications.
- Following this, the Cabinet has also given its approval for signing of a Memorandum of Understanding(MoU) between the Ministry of Skill Development and Entrepreneurship of India and the National Qualifications Authority of the U.A.E. for cooperation in skill development and recognition of qualifications.
- The MoU will pave the way for bilateral cooperation between the two countries on skill development and recognition of qualifications. Also the MoU will facilitate workforce mobility, skill development and placement of youth in overseas jobs in UAE.

Sources: pib.

India to accede to the Ashgabat Agreement

The Union Cabinet has given its approval for India to accede to the **Ashgabat Agreement**, an international transport and transit corridor facilitating transportation of goods between Central Asia and the Persian Gulf.

- India's intention to accede to the Ashgabat Agreement would now be conveyed to the Depository State (Turkmenistan). India would become party to the Agreement upon consent of the founding members.

Benefits for India:

- Accession to the Agreement would enable India to utilise this existing transport and transit corridor to facilitate trade and commercial interaction with the Eurasian region.

- Further, this would synchronise with our efforts to implement the International North South Transport Corridor (INSTC) for enhanced connectivity.

Background:

Ashgabat , known as **Poltoratsk** between 1919 and 1927, is the **capital and the largest city of Turkmenistan** in Central Asia, situated between the **Karakum Desert and the Kopet Dag mountain range**.

- The Ashgabat Agreement, which aims to develop a shortest trade route between Central Asian countries and Iranian and Omani ports, was initially signed among Uzbekistan, Turkmenistan, Iran, Oman and Qatar back in April 2011 and was given additional support in 2014 when a Memorandum of Understanding was signed.

- Whilst Oman called for early completion of basic technical requirements so that the corridor can be operational by 2015, Qatar withdrew from the agreement in 2013. However, Kazakhstan promised to join instead, which will increase the project's significance and extend it further into Central Asia.

- The Iran-Turkmenistan-Kazakhstan (ITK) railway line will be the major route according to the Ashgabat Agreement, which became operational in December 2014 and was also included as part of India-funded North-South international transport corridor (NSITC).

Sources: pib.

'Market access for India's services key to BTIA'

Commerce Minister Nirmala Sitharman recently said that obtaining greater access to the market for services in the European Union (EU) is key for the progress of

the ***Broadbased Trade and Investment Agreement (BTIA)*** between the EU and India.

- India and EU are hoping to make progress on the trade deal during the **13th EU India Summit in Brussels**.

Obstacles:

India has not been granted **data secure** status by the EU, and this has mainly hampered the progress of negotiations around the liberalisation of trade in services in the BTIA talks. Being considered 'data secure' is crucial for a number of services especially in the IT and ITES sectors.

About Broadbased Trade and Investment Agreement (BTIA):

On 28th June 2007, India and the EU began negotiations on a broad-based Bilateral Trade and Investment Agreement (BTIA) in Brussels, Belgium.

- These negotiations are pursuant to the commitment made by political leaders at the 7th India-EU Summit held in Helsinki in October 2006 to move towards negotiations for a broad-based trade and investment agreement on the basis of the report of India-EU High Level Technical Group.

- India and the EU expect to promote bilateral trade by removing barriers to trade in goods and services and investment across all sectors of the economy. Both parties believe that a comprehensive and ambitious agreement that is consistent with WTO rules and principles would open new markets and would expand opportunities for Indian and EU businesses.

- The negotiations cover Trade in Goods, Trade in Services, Investment, Sanitary and Phytosanitary Measures, Technical Barriers to Trade, Trade Remedies, Rules of Origin, Customs and Trade Facilitation, Competition, Trade Defence, Government Procurement, Dispute Settlement, Intellectual Property Rights & Geographical Indications, Sustainable Development. So far, 15 rounds of negotiations have been held alternately at Brussels and New Delhi.

Sources: the hindu.

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

U.N. Security Council approves tough sanctions on North Korea

The United Nations Security Council has imposed a broad array of sanctions against North Korea because of that nation's recent nuclear test and missile launch — both of which defied current international sanctions.

- The resolution aims to cripple parts of the North Korean economy that fuel its nuclear and ballistic missile programs.

Sanctions imposed:

- Require all North Korean planes and ships carrying cargo to be inspected. Previously, nations only inspected planes and ships when they had "reasonable grounds," which enabled North Korea to hide tools and parts for missiles and the nuclear program in inconspicuous packages.

- Ban Pyongyang (Capital of North Korea) from exporting most of the country's natural resources. Coal alone accounted for about $1 billion in annual income.

- Ask U.N. member states to ban North Korea from opening banks, and to close any banks believed to be associated with North Korea's nuclear and missile programs.

- Direct member states to expel North Korean diplomats and foreign nationals engaged in illicit activities.

- Prohibit nations from providing training to North Korean nationals in fields that could advance the nation's missile and nuclear programs, such as aerospace engineering and advanced computer simulation.

- Ban member states from allowing North Korea to charter foreign vessels or aircraft, and ban all nations from operating any vessels that use North Korean flags.

- Prohibit the supply of aviation fuel — including rocket fuel — and the sale of small arms to North Korea.

Sources: the hindu.

No legal obligation to NPT, says India

Ahead of the Nuclear Security Summit, the government recently reminded the world that India **does not have any legal obligation to the Nuclear Non-**

Proliferation Treaty (NPT). Government believes that given the country's consistent and principled position on the NPT, to which <u>India is not a party</u>, its provisions cannot be extended to India as a legal obligation.

<u>Background</u>:

This was in response to a question on the case that Marshall Islands from the Pacific Ocean region has lodged at the International Court of Justice against all the major nuclear states, including India, for possessing nuclear weapons and for not supporting a global test ban pact.

- The case from the Marshall Islands has been on the agenda of the ICJ since the tiny archipelago in the Pacific Ocean lodged the case in 2014 seeking greater international attention to the issue of comprehensive test ban treaty.

- Ever since, Marshall Islands' campaign has acquired stronger support, especially since it suffered due to the nuclear tests conducted in its territory by the U.S.

<u>Way ahead</u>:

India has sent a legal team to the International Court of Justice (ICJ) in The Hague, where Marshall Islands has at present instituted proceedings against India, contending breach of customary law obligations following from the Non-Proliferation Treaty.

- India had already made a written presentation to the ICJ reiterating that Marshall Islands' argument regarding the obligations flowing from Article VI of the NPT is not valid before India which is not a signatory to the NPT.

<u>What the NPT says?</u>

Article VI of the NPT demands that **each member state** of the NPT undertake "negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control."

<u>About NPT:</u>

What is it?

It is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy, and to further the goal of achieving nuclear disarmament and general and complete disarmament.

When it entered into force?

The Treaty entered into force in 1970.

Signatories:

A total of 190 states have joined the Treaty.

Who has not joined?

Four UN member states have never joined the NPT: India, Israel, Pakistan and South Sudan. North Korea, which acceded to the NPT in 1985 but never came into compliance, announced its withdrawal in 2003.

Recognized nuclear-weapon states:

The treaty recognizes **five states as nuclear-weapon states**: the United States, Russia, the United Kingdom, France, and China.

Other details:

- The NPT non-nuclear-weapon states agree never to acquire nuclear weapons and the NPT nuclear-weapon states in exchange agree to share the benefits of peaceful nuclear technology and to pursue nuclear disarmament aimed at the ultimate elimination of their nuclear arsenals.

- The treaty is reviewed every five years in meetings called Review Conferences of the Parties to the Treaty of Non-Proliferation of Nuclear Weapons. Even though the treaty was originally conceived with a limited duration of 25 years, the signing parties decided, by consensus, to extend the treaty indefinitely and without conditions.

- Several additional measures have been adopted to strengthen the NPT and the broader nuclear non-proliferation regime and make it difficult for states to acquire the capability to produce nuclear weapons, including the export controls of the Nuclear Suppliers Group and the enhanced verification measures of the IAEA Additional Protocol.

The NPT is interpreted as a **three-pillar system**, with an implicit balance among them: the three pillars are:

1. Non-proliferation.
2. Disarmament
3. The right to peacefully use nuclear technology.

Sources: the hindu.

Syrian war enters sixth year

Syrian war has entered its sixth year. Over the past five years the war has spiraled into a complex conflict, with regime forces, rebels, Kurdish fighters and jihadists carving out zones of influence.

All about Syrian war:

What happened?

It all began with pro-democracy protests which erupted in March 2011 in the southern city of Deraa after the arrest and torture of some teenagers who painted revolutionary slogans on a school wall. After security forces opened fire on demonstrators, killing several, more took to the streets.

- The unrest triggered nationwide protests demanding President Assad's resignation. The government's use of force to crush the dissent merely hardened the protesters' resolve. By July 2011, hundreds of thousands were taking to the streets across the country.

- Opposition supporters eventually began to take up arms, first to defend themselves and later to expel security forces from their local areas.

- Soon, violence escalated and the country descended into civil war as rebel brigades were formed to battle government forces for control of cities, towns and the countryside. Fighting reached the capital Damascus and second city of Aleppo in 2012.

- The conflict is now more than just a battle between those for or against Mr Assad. It has acquired sectarian overtones, pitching the country's Sunni majority against the president's Shia Alawite sect, and drawn in regional and world powers. The rise of the jihadist group Islamic State (IS) has added a further dimension.

How it has affected Syrians?

More than 4.5 million people have fled Syria since the start of the conflict, most of them women and children. Neighbouring Lebanon, Jordan and Turkey have struggled to cope with one of the largest refugee exoduses in recent history. About 10% of Syrian refugees have sought safety in Europe, sowing political divisions as countries argue over sharing the burden.

- A further 6.5 million people are internally displaced inside Syria, 1.2 million were driven from their homes in 2015 alone.

Latest developments:

Last month, Syria's regime agreed to a ceasefire deal announced by the United States and Russia after it was conditionally accepted by the opposition. The deal calls for a "cessation of hostilities" between forces loyal to President Bashar al-Assad and opposition groups that would take effect at midnight Friday Damascus time.

Sources: the hindu.

Mexico opposes India's UNSC bid

India's quest for permanent membership of the United Nations Security Council (UNSC) now faces a new challenge with Mexico coming out in opposition to India's campaign.

Why Mexico is opposing?

Mexico thinks adding more permanent members in the Security Council is not the solution to the existing problem. More veto power-wielding permanent members will mean more paralysis of the U.N. Instead, it has argued for a compromise with India and India can opt for long-term membership with possibilities of election.

What does the UNSC currently look like?

As of now, there are 15 members on the UNSC. Five of those, including the US, UK, France, China and Russia are permanent members. These members have the all-important veto power (essentially a negative vote) which would mean that a "resolution or decision would not be approved".

- The remaining 10 non-permanent members are elected by the General Assembly for two-year terms, starting 1 January. Five members are replaced each year. India has been elected as a non-permanent member to the UNSC for seven such terms.

India and the UNSC:

India, since long time, has been demanding expansion of UNSC and its inclusion as permanent member in it.

- The U.S. is supporting India's claim for a permanent UNSC seat, but it has been calling for consensus before reforms can move ahead. Pakistan is opposed to

India, while China has been ambiguous in its approach though not openly opposed to reforms.

▪ Russia, France and UK have clarified that they are open to supporting India's bid for a permanent seat in the United Nations Security Council (UNSC).

Why India should be given a permanent seat in the council?

▪ India was among the founding members of United Nations.

▪ It is the second largest and a one of the largest constant contributor of troops to United Nations Peacekeeping missions.

▪ India has over 8,500 peacekeepers in the field, more than twice as many as the UN's five big powers combined.

▪ It has been a member of UNSC for 7 terms and a member of G-77 and G-4, so permanent membership is a logical extension.

Sources: the hindu.

Japan says India's nuclear MoU "legally binding"

A senior Japanese diplomat recently told that **India had committed to adhere to the "control of nuclear material, traceability [of nuclear fuel] and consequence in case of a nuclear accident"** under the memorandum of understanding (MoU) on civil nuclear cooperation with Japan signed during Prime Minister Shinzo Abe's visit to India in 2015.

▪ The Japanese diplomat pointed out that so far, the world had to rely on India's verbal commitments on nuclear non-proliferation, but the India-Japan MoU marked the first occasion when India came under legal obligation to uphold non-proliferation concerns.

This statement has given rise to many concerns:

▪ Though the bilateral agreement leaves out India's military nuclear programme, experts warn that the agreed principles impinge on India's independent nuclear programme as they imply intrusive inspection of civilian nuclear reactors as warranted under the Nuclear Non-proliferation Treaty (NPT).

▪ The Japanese diplomat has also indicated that India will be financially accountable if it is found to be violating the principles.

▪ The MoU may also destabilise India's established nuclear deals with Russia and France as they too may demand similar commitments previously denied to them.

Sources: the hindu.

Nepal, China sign first-ever transit treaty

Nepal and China have signed 10 Memorandums of Understanding (MoU), including the **transit and transportation treaty** during Prime Minister KP Sharma Oli's ongoing visit to the country.

New Rail and Port link:

New Rail link: China has agreed to Nepal Prime Minister K P Oli's request to build a strategic railway link between the two countries through Tibet to reduce land-locked Nepal's total dependence on India.

Port: With the latest agreement, Nepal will be able to use the Chinese sea port for third-country trade through the nearest Tianjin port that is 3,000 km from Nepal border. This will end the Himalayan nation's total dependency on an Indian sea port for third-country trade links. India's Calcutta port is 1,000 km from from Nepal.

Background:

Oli's high-profile visit comes as Nepal seeks to open more supply routes from China amid fears of a repeat of recent nearly six-month long crippling blockade when the Indian-origin Madhesis blocked Nepal's trade-routes with India, throwing normal life out of gear.

India at present has two rail lines under construction and three more are being planned to increase Nepal's trade ties. India and Nepal have 25 crossing points, two integrated checkpoints and 2 more checkpoints were under construction.

Sources: the hindu.

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

India to host BRICS summit in October

India will host the *eighth* annual Summit of BRICS from October 15-16 in **Goa** in its capacity as chair of the influential bloc.

INSIGHTSIAS
SIMPLIFYING
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- India assumed chairmanship of BRICS (Brazil-Russia-India- China-South Africa) from Russia on February 15 and it will last till December 31.
- India's core-theme during BRICS chairmanship will be building responsive, inclusive and collective solutions for the grouping.
- India's emphasis, during its tenure, would be on institution building, implementation of previous commitments flowing from the past Summits, and exploring synergies among the existing mechanisms.

2016 BRICS Logo:

India recently unveiled a logo for the upcoming 2016 BRICS summit. The logo for the summit is a lotus with colours from all the five member-countries and a traditional 'namaste' in the centre.

- BRICS comprises five countries with 42% of the world population and combined GDP of over USD 16 trillion.

Sources: the hindu.

Bill introduced in US Congress to help India join APEC

Few influential American lawmakers have introduced a legislation asking the Obama administration to help **India join the APEC forum**, saying an economically prosperous India benefits the US' strategic goals in Asia.

What's there in the legislation?

- The legislation notes that US-India partnership is vital to the US strategic interests in the Asia-Pacific region and across the globe, and is an integral aspect to the Administration's Rebalance to Asia.
- Observing that India enjoys a location within the Asia- Pacific region which provides an avenue for continued trade and investment partnerships with APEC member states, the legislation also asks Secretary of State to develop a strategy to obtain membership status for India in APEC, including participation in related meetings, working groups, activities and mechanisms.
- It even directs the Secretary of State to actively ask APEC member states to support such membership status for India and submit a report to the Congress within two months of the passage of this legislation.

Benefits for India:

- Membership in APEC (Asia Pacific Economic Cooperation) would provide India a constructive forum to glean insight from other Asian countries that have already taken significant steps to advance their economies.

- India is also striving for major economic reforms to open India's markets, improve trade volume, and facilitate its growing population's need for continued job growth. Hence, APEC can be the right platform.

APEC:

The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific. APEC has 21 members.

Aim: to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.

Functions:

- APEC works to help all residents of the Asia-Pacific participate in the growing economy.

- APEC projects provide digital skills training for rural communities and help indigenous women export their products abroad.

- Recognizing the impacts of climate change, APEC members also implement initiatives to increase energy efficiency and promote sustainable management of forest and marine resources.

- The forum adapts to allow members to deal with important new challenges to the region's economic well-being. This includes ensuring disaster resilience, planning for pandemics, and addressing terrorism.

Members:

- APEC's 21 member economies are Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; The Philippines; The Russian Federation; Singapore; Chinese Taipei; Thailand; United States of America; Viet Nam.

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- APEC Members account for approximately 40% of the world's population, approximately 54% of the world's gross domestic product and about 44% of world trade.

In APEC, all economies have an equal say and decision-making is reached by consensus. There are no binding commitments or treaty obligations. Commitments are undertaken on a voluntary basis and capacity building projects help members implement APEC initiatives. The APEC process is supported by a permanent secretariat based in Singapore.

Sources: the hindu.

Nepal joins SCO grouping as dialogue partner

Nepal has become a *dialogue partner* **of the Shanghai Cooperation Organisation (SCO)**.

- As a dialogue partner, Nepal is able to participate in the multi-field cooperation of the SCO, which has an increasing presence in international affairs.

- Besides, as Nepal joins the SCO, it will create new opportunities for the SCO's mutually beneficial cooperation and benefit people living in the extensive region that the SCO covers.

- Recently, **Azerbaijan** also officially became a SCO dialogue partner.

About Shanghai Cooperation Organisation (SCO):

It is a Eurasian political, economic and military organisation which was founded in 2001 in Shanghai by the leaders of China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan. These countries, except for Uzbekistan, had been members of the Shanghai Five, founded in 1996; after the inclusion of Uzbekistan in 2001, the members renamed the organisation.

- The SCO is seen as a counter to the North Atlantic Treaty Organisation (NATO).

- It has eight members: China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, *India* and Pakistan.

- It also has Afghanistan, Iran, Mongolia and Belarus as observers.

- The SCO has established relations with the United Nations, where it is an observer in the General Assembly, the European Union, Association of Southeast

Asian Nations (ASEAN), the Commonwealth of Independent States and the Organisation of Islamic Cooperation.

▪ Its headquarters is located in Beijing, China.

Sources: the hindu.

Indian appointed UN adviser on human rights and businesses

India-born academician- Surya Deva- has been appointed by the Geneva-based UNHRC as the Asia-Pacific representative of the UN Working Group on the issue of human rights and transnational corporations and other business enterprises.

UNHRC:

It is an inter-governmental body within the United Nations system responsible for strengthening the promotion and protection of human rights around the globe and for addressing situations of human rights violations and make recommendations on them.

▪ It meets at the UN Office at Geneva.

▪ The Council is made up of 47 United Nations Member States which are elected by the UN General Assembly.

▪ The term of each seat is three years, and no member may occupy a seat for more than two consecutive terms.

▪ The council works closely with the Office of the High Commissioner for Human Rights and engages the United Nations' special procedures.

▪ The General Assembly can suspend the rights and privileges of any Council member that it decides has persistently committed gross and systematic violations of human rights during its term of membership. The suspension process requires a two-thirds majority vote by the General Assembly.

Sources: the hindu.

Vodafone moves ICJ over tax arbitration with India

British telecom giant Vodafone has moved the Hague-based International Court of Justice (ICJ) seeking appointment of a judge to preside over an arbitration over its Rs.14,200-crore tax case.

- Vodafone moved ICJ after arbitrators appointed by it and the government of India failed to reach a consensus on selection of a neutral/presiding judge of the three-member panel.

Background:

The government had initially slapped a tax demand of Rs.7,990 crore on Vodafone for failing to deduct tax on capital gains made over its $11-billion acquisition of 67% stake in the mobile phone business owned by Hutchison Whampoa in 2007. However, recently the IT department sent a reminder notice to Vodafone seeking Rs.14,200 crore in tax and interest.

About ICJ:

The International Court of Justice (ICJ) is the principal judicial organ of the United Nations (UN). It was established in June 1945 by the Charter of the United Nations and began work in April 1946.

- The seat of the Court is at the Peace Palace in The **Hague (Netherlands)**.
- Of the six principal organs of the United Nations, it is **the only one not located in New York (United States of America)**.
- The Court's role is to settle, in accordance with international law, legal disputes submitted to it by States and to give advisory opinions on legal questions referred to it by authorized United Nations organs and specialized agencies.
- The Court is composed of 15 judges, who are elected for terms of office of nine years by the United Nations General Assembly and the Security Council. It is assisted by a Registry, its administrative organ. Its official languages are English and French.

Jurisdiction:

- As stated in the UN Charter, all 193 UN members are automatically parties to the Court's statute. Non-UN members may also become parties to the Court's statute. Once a state is a party to the Court's statute, it is entitled to participate in cases before the Court. However, being a party to the statute does not automatically give the Court jurisdiction over disputes involving those parties.

Sources: the hindu.

GS III

Paper 3 Topic: Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints

Government mulls fresh study on post-harvest loss of farm produce

The Centre is mulling a fresh study on the percentage of post-harvest losses of farm products following contradictory findings.

Why fresh study is necessary?

A re-look is needed because while some data available with the government shows the percentage of post-harvest losses of perishables such as fruits and vegetables being as high as 30%, studies commissioned by government have put it at as low as 5%.

- The fresh study is also aimed at countering the allegation of critics that 'inflated' farm products wastage data was being shown to justify the move to permit FDI in marketing of food products. The government in the latest budget proposed 100% FDI in marketing of food products.

Background:

A March 2015 report of the Indian Council of Agricultural Research (ICAR)—Central Institute of Post-Harvest Engineering and Technology (CIPHET)— showed that the cumulative percentage of post-harvest losses of cereals was low in the range of 4.65–5.99% while that of pulses was between 6.36–8.41% and oil seeds 3.08–9.96%.

- As per the report, the maximum losses were in fruits and vegetables (4.58–15.88%) and fisheries—marine (10.52%). Percentage of post-harvest losses was low in milk (0.92%), fisheries-inland (5.23%), meat (2.71%) and poultry (6.74%).

- The ICAR-CIPHET study was commissioned by the government.

- However, an earlier paper put out by the Department of Industrial Policy and Promotion (or DIPP which formulates the FDI policy) had quoted data from agriculture ministry to say that 25-30% of fruits and vegetables and 5-7% of food grains in India are wasted.

- It said post-harvest losses of farm produce, especially of fruits, vegetables and other perishables, have been estimated to be over Rs. one trillion per annum, 57% of which is avoidable wastage and the balance due to avoidable costs of storage and commission.

- Besides, the DIPP has objected to studies showing very low wastage saying these findings were far removed from the ground reality.
- According to the DIPP, inadequate cold storage facilities results in huge losses to farmers in terms of wastage of produce, particularly that of fruits and vegetables.

Sources: the hindu.

Paper 3 Topic: subsidies.

Special cell set up to gather data on subsidies of other nations

The government has set up a **special cell to compile information on subsidies given by other countries to their industry**.

- The constitution of the special cell is aimed at indirectly helping India Inc file applications before the government seeking imposition of anti-subsidy duties on subsidised imports of items, such as steel, harming local industries.

Significance of this move:

The development comes in the backdrop of slowdown in global trade and measures taken (including against merchandise exports from India) by several countries such as the U.S. to protect their domestic industries from unfairly low-priced imports.

What are 'subsidies'?

Under the WTO norms, *subsidies refer to financial contribution (loan, loan guarantee, grant, import duty exemption, equity infusion, fiscal incentives and purchase of goods) by the government or state agencies resulting in advantages to those players availing it*.

Sources: the hindu.

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

RBI unlocks Rs.40,000 crore additional capital for banks

The Reserve Bank of India (RBI) has revised norms on capital recognition, making available an additional Rs.40,000 crore to Indian banks.

- However, it has kept other rates unchanged. This is the second time in a row that interest rates have been left unchanged amid demands for moderation to spur growth.

- The repo rate, at which the Reserve Bank of India lends to banks, has been retained at 8%, while the statutory liquidity ratio (SLR) for banks has been cut by 0.5% to 22.5% with effect from June 14.

- The cash reserve ratio for banks has been kept unchanged at 4%.

Significance of this move:

- The move comes at a time when public sector banks are facing pressure on their profitability due to a sharp rise in non-performing assets, which is eroding their capital base.

- The announcement is a big relief for, mainly, public sector banks. Finance minister Arun Jaitley also announced in his budget speech a capital infusion of Rs. 25,000 crore for the fiscal year starting in April.

- However, the minister did not make any increases to the capital infusion amount that was decided in August 2015.

- Many public sector banks reported huge losses for the quarter ended December 2015 after the RBI asked lenders to identify several accounts as non-performing. Banks are expected to post weak earnings in the current quarter too.

Other details:

- The revised norms will give PSBs access to additional capital of 35,000 crore, while it could be about 5,000 crore for private sector banks.

- The unlocking of capital follows a review carried by the RBI with the aim of further aligning the definition of regulatory capital with the globally adopted Basel III norms.

- These standards aim to improve the banking sector's ability to absorb shocks arising from financial stress and improve risk management and governance.

- Banks have now been allowed to include some items, such as property value and foreign exchange, for calculation of Tier 1 capital (CET1), instead of Tier 2 capital.

- As per RBI norms, CET1 capital, comprising paid-up equity capital, statutory reserves, capital reserves, other disclosed free reserves (if any), and balance in

P&L Account at the end of the previous fiscal year, must be at least 5.5% of risk-weighted assets.

Sources: the hindu.

IFC launches masala bonds to mobilise Rs 30 crore

International Finance Corporation (IFC) — a member of the World Bank group—has launched its first **Uridashi Masala bonds**, mobilising R30 crore directly from Japanese household investors to promote private sector development in India.

- The three-year bond builds on IFC's Masala bond programme, which has raised the equivalent of $1.7 billion from international investors for investment in India.

- Proceeds from IFC's Uridashi Masala bonds will be used to support private sector investment in India.

Uridashi bonds are sold to Japanese household investors.

What are Masala Bonds?

The term is used to refer to rupee-denominated borrowings by Indian entities in overseas markets. The International Finance Corporation (IFC), the investment arm of the World Bank, last November, issued a Rs. 1,000 crore bond to fund infrastructure projects in India. These bonds were listed on the London Stock Exchange (LSE). IFC then named them Masala bonds to give a local flavour by calling to mind Indian culture and cuisine.

- While it may seem odd to name a staid debt instrument after food stuffs, it has been done in the past. Chinese bonds, named Dim-sum bonds after a popular dish in Hong Kong, have been around for while. So have Japanese bonds named Samurai after the country's warrior class.

Why is it important?

Masala bonds, if they take off, can be quite a significant plus for the Indian economy. They are issued to foreign investors and settled in US dollars. Hence the currency risk lies with the investor and not the issuer, unlike external commercial borrowings (ECBs), where Indian companies raise money in foreign currency loans.

- While ECBs help companies take advantage of the lower interest rates in international markets, the cost of hedging the currency risk can be significant. If

unhedged, adverse exchange rate movements can come back to bite the borrower. But in the case of Masala bonds, the cost of borrowing can work out much lower.

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.

Central bank issues draft norms for NBFC-AA

The Reserve Bank of India has issued draft norms for the creation of a new entity in the **non-banking financial sector**, namely **NBFC – Account Aggregator (AA)** and proposed that the minimum capital for start such an activity will be Rs. two crore.

- NBFC –AA will act as an account aggregator to enable the common man to see all his accounts across financial institutions in a common format.

Background:

The idea of such an NBFC had emanated from the Financial Stability and Development Council (FSDC).

- At present, a person holding financial assets such as, savings bank deposits, fixed deposits, mutual funds, insurance policies, do not get a consolidated view of their financial asset holdings, especially when the entities fall under the purview of different financial sector regulators.

- Account Aggregators would fill this gap by collecting and providing the information of customers' financial assets in a consolidated, organised and retrievable manner to the customer or any other person as per the instructions of the customer. The investors will be able to avail the service of an Account Aggregator purely at their option.

NBFCs:

What are they?

Non-bank financial companies (NBFCs) are financial institutions that provide banking services without meeting the legal definition of a bank, i.e. one that does not hold a banking license.

What they can't do?

- These institutions typically are restricted from taking deposits from the public depending on the jurisdiction. Nonetheless, operations of these institutions are often still covered under a country's banking regulations.

- NBFC cannot accept demand deposits.

- NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself.

- Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.

Who supervises them?

The Reserve Bank of India is entrusted with the responsibility of regulating and supervising the Non-Banking Financial Companies by virtue of powers vested under Reserve Bank of India Act, 1934.

Sources: the hindu.

Aadhaar Bill introduced in Lok Sabha

A Bill to provide Aadhaar **statutory backing** for use for transferring government subsidies and benefits has been introduced in Lok Sabha.

- The Bill incorporates clauses to keep personal information discreet and it not being a proof of citizenship.
- The Bill was introduced by Finance Minister Arun Jaitley. It is named **'The Aadhaar (Target Delivery of Financial and Other Subsidies, Benefits and Services) Bill, 2016**'.
- It has been introduced as a '**Money Bill**'.

Important provisions in the Bill:

- The Bill seeks to make the use of Aadhaar mandatory for availing of government subsidies but at the same time tries to address concerns regarding privacy and protection of personal information.
- The bill has sought to address many provisions related to privacy and security of the biometric information provided by citizens. The bill provides that the information will be an electronic record and will be classified as "sensitive personal data or information" as per the provisions of the Information Technology Act.
- The bill prohibits the sharing of the core biometric information in any form. However, information about the identity of an individual, other than core biometric information, can be shared subject to certain conditions.
- The bill also mandates the enrolling agency to inform the individual undergoing enrolment on how the data will be used and with whom it will be shared and the fact that the individual can also access such information.
- The bill also provides provisions wherein institutions, after paying a fee, can authenticate the identity of a person. But for this, the institution should have the consent of the Aadhaar number holder.
- It directs UIDAI to have sufficient security of identity information and authentication record of individuals. It also directs UIDAI to ensure that

agencies, consultants and its employees are bound by confidentiality and do not leak any information.

- To ensure that the number of people excluded from Aadhaar's fold is minimum, the bill also talks about special measures that will be undertaken by the Authority to issue numbers to women, nomadic tribes, street dwellers, senior citizens, persons with disability and unskilled and unorganized workers. It also says the Aadhaar number by itself will not be considered proof of citizenship or domicile.

- It also provides for penalties for impersonation, unauthorized access and tampering of data in the Central Identities data repository that stores all such information. However, to be sure, the government has retained the right to use and access such information sought "in the interest of national security."

Significance of this Bill:

- The bill will provide for good governance, efficient, transparent, and targeted delivery of subsidies, benefits and services, the expenditure for which is incurred from the Consolidated Fund of India, to individuals residing in India through assigning of unique identity numbers to such individuals.

- The proposed legislation will also address the uncertainty surrounding the project after the Supreme Court restricted the use of the Aadhaar number until a constitution bench delivers its verdict on a number of cases challenging the mandatory use of Aadhaar in government schemes and rules on the issue of privacy violation.

Money Bill- Key facts:

- Money bills **can be introduced only in the Lok Sabha**.

- The **Rajya Sabha cannot make amendments to a money bill passed by the Lok Sabha and can only make recommendations**.

- It also has to **return money bills to the Lok Sabha within 14 days** from the date of their receipt, thus ensuring a time-bound process.

- Such bills also **cannot be referred to a joint committee of Parliament**.

- If any question arises whether a Bill is a Money Bill or not, the **decision of Speaker thereon is final**. The Speaker is under no obligation to consult any one in coming to a decision or in giving his certificate that a Bill is a Money Bill.

▪ The President may either give or withhold his assent to a Money Bill. Under the Constitution, a **Money Bill cannot be returned** to the House by the President for reconsideration.

Sources: the hindu.

Governemnt announces third round of Gold Bond Scheme

After two rounds of issuance in November 2015 and January this year, the government is preparing to launch the third tranche of the gold bond scheme.

Background:

▪ The government had raised around Rs 1,045 crore through earlier two rounds of issuance of gold bonds.

▪ The government had launched the first tranche of sovereign gold bond scheme in November for which it got subscription for 915.95 kg of gold worth Rs 246 crore. In January, it came out with the second tranche and received subscription for 3,071 kg gold amounting to Rs 798 crore.

About Sovereign Gold Bond Scheme:

Under the scheme, gold bonds are issued in denominations of 5 grams, 10 grams, 50 grams and 100 grams for a term of 5-7 years with a rate of interest to be calculated on the value of the metal at the time of investment. The scheme has an annual cap of 500 grams per person.

▪ The bonds will be sold through banks, Stock Holding Corporation of India Limited and designated post offices.

▪ As per the scheme, the gold bonds will be sold only to resident Indian entities including individuals, Hindu undivided families, trusts, universities, and charitable institutions.

▪ The bond tenure will be eight years with exit option beginning the fifth year onwards. They will also be tradable in the bourses.

▪ Bonds can also be used as collateral for loans.

Sources: the hindu.

Proposals of the Companies Law Committee – A case of good spring-cleaning

The Committee appointed by the Government of India to suggest changes in the Companies Act, 2013 and Rules made thereunder, in the interests of various stakeholders, has submitted its report.

Background:

The enactment of the Companies Act 2013 ushered in a new regime of corporate governance and provided fillip to the way business is conducted in India. The Companies Law Committee was set up in June 2015, with the mandate to further improve and streamline the Act. Towards this end, the committee engaged in extensive discussions with various stakeholders and undertook a critical examination of established international best practices.

Key recommendations:

▪ The overall managerial remuneration payable by a public company should not exceed 11% of the net profits of that company except with the approval of the shareholders and the Central Government. Similar approvals are required for companies having inadequate or no profits.

▪ The report recommends simpler regulatory regime by proposing removal of government approval for managerial remuneration with few additional disclosures. This would be in sync with international practices and reduce procedural delays.

▪ The report recommends removal of restrictions on layering of subsidiaries since it was likely to have a substantial bearing on the functioning, structuring and the ability of companies to raise funds. Effectively, companies will be permitted to make investment through more than two layers of investment companies as per the report.

▪ The Act specifies that an independent director must not have or had any pecuniary relationship with the company, its holding, subsidiary or associate company or their promoters or directors, during the two immediately preceding financial years or during the current financial year. Even minor pecuniary relationships were covered due to this provision even though such transactions may not impact independence of directors. The report proposes to introduce a

threshold for pecuniary relationships in relation to qualification for an independent director. This would further ease the implementation of provision for appointment of independent director by companies.

▪ Threshold has been proposed for punishment for fraud to avoid misuse of provision; frauds involving amounts below specified limits which do not involve public interest to be given differential treatment and compoundable. Penalty/fine proposed to be reduced in case of non-compliance with various sections of the Act.

▪ The Committee also recommended certain changes specifically for encouraging start-ups which include reducing compliance burden on account of private placement procedure, permitting start-ups to raise deposits for its initial five years without any upper limits, to issue ESOPs to promoters working as employees etc.

Sources: the hindu.

Govt clears proposal to amend MMDR Act

The Union Cabinet has given its approval for the amendment to the **Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act, 1957)**.

Implications:

▪ The amendment will allow transfer of captive mining leases not granted through auction. Transfer of captive mining leases, granted otherwise than through auction, would allow mergers and acquisitions of companies.

▪ This will facilitate ease of doing business for companies to improve profitability and decrease costs of the companies' dependent on supply of mineral ore from captive leases.

▪ The transfer provisions will also facilitate banks and financial institutions to liquidate stressed assets where a company or its captive mining lease is mortgaged.

▪ The amendment will benefit lessees desirous of transferring the captive leases not granted through auction.

▪ It will also benefit banks and financial institutions. It does not entail any recurring or non-recurring expenditure on the Government.

Background:

The MMDR Act, 1957, as amended through the MMDR Amendment Act, 2015, restricted the scope of transferability of concessions granted through auction. It was restricting the mergers and acquisitions of companies and was impeding the ease of doing business for companies dependent on supply of mineral ore from captive leases. The provision was coming in the way of banks and financial institutions to liquidate stressed assets where a company or its captive mining lease is mortgaged.
Sources: pib.

SEBI bans wilful defaulters from tapping capital market

In an attempt to tighten the regulatory framework, the Securities and Exchange Board of India (SEBI) has **barred 'wilful defaulters' from accessing the capital market or acquiring another listed entity**.

▪ SEBI has decided that if a listed entity or its promoter has been declared a wilful defaulter, it will not be allowed to make a public issue of equity shares, debt or any other convertible securities.

▪ This decision is based on Reserve Bank of India (RBI) regulations which lay down safeguards to be exercised by banks to contain the financial activities of a wilful defaulter.

Who is a willful defaulter?

The RBI defines a wilful defaulter as "an entity that defaults on its payment obligations even if it has the capacity to pay back debts."

Background:

The SEBI's move has come at a time when banks have moved the Supreme Court against industrialist Vijay Mallya, who has been declared a wilful defaulter.
Sources: the hindu.

Push to Pharmacy Sector

Quality Council of India (QCI) had recently organized an event to introduce a **voluntary certification process for domestically-produced** medical devices.

- This was an attempt by the centre to create confidence among doctors and Consumers about availability of locally produced medical devices.
- During the event, pharma produces were also asked to adopt WHO standards to reassure the world that Indian drugs are not only cost-effective but are also of good quality.

Background:

While India is known as pharmacy of the world it is lagging behind in producing medical devices. Hence, it was recently decided by the government to increase import duties on medical devices imported from other countries as a corrective step to create an ecosystem for manufacturing them locally.

Pharma sector in India:

- It is estimated that the Indian pharmaceutical industry is estimated to grow at 20% compound annual growth rate over the next 5 years.
- Pharmaceutical industry in India is also expected to outperform the Global pharmaceutical industry, which is set to grow at annual rate of 5% over the next five years.
- Presently the market size of the pharmaceutical industry in India stands at $20 billion.
- Besides, by 2020 India is likely to be on the top 3 pharmaceutical markets by incremental growth and sixth largest Market globally in absolute size.
- India's cost of production is also significantly lower than that of the US and almost half of that of Europe. This gives India A competitive edge over other countries.

Quality Council of India (QCI) was set up in 1997 as an autonomous body jointly by the Government of India and the Indian Industry represented by the three premier industry associations i.e. Associated Chambers of Commerce and Industry of India (ASSOCHAM), Confederation of Indian Industry (CII) and Federation of Indian Chambers of Commerce and Industry (FICCI), to establish and operate national accreditation structure and promote quality through National Quality Campaign.

The **Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, is the nodal ministry for QCI**.

Sources: the hindu.

'Google Tax': Govt panel for levy on e-com through emails, blogs

A committee on e-commerce has recommended a tax on digital transactions such as emails, blogs and downloads.

- The committee was set up by the Central Board of Direct Taxes.
- The committee has recommended a tax of 6-8% on 13 services, in a bid to prevent tax avoidance by multinationals.
- The recommendations are based on Base Erosion and Profit Shifting guidelines of The Organisation for Economic Co-operation and Development (OECD) – which provides economic solutions to member nations.

Some B2B services on which the committee has recommended equalisation levy of 6-8% include:

- Online advertising or any services, rights or use of software for online advertising, including advertising on radio & television.
- Digital advertising space.
- Designing, creating, hosting or maintenance of website.
- Digital space for website, advertising, e-mails, online computing, blogs, online content, online data or any other online facility.
- Any provision, facility or service for uploading, storing or distribution of digital content.

Sources: bs.

New gen NBFCs to target smaller cities

New generation Non-Banking Finance Companies (NBFCs) are increasing their focus on tier-II and III cities to expand their businesses.

<u>Why they are interested in these cities?</u>

- For NBFCs, tier-I cities are comfort zones. But due to compression in interest rates and increasing competition in tier-I cities, NBFCs are looking at tier-2 and 3 cities.
- Also, the *repayment capacity* of professionals, such as doctors, in tier–II and -III cities is better, as there is less competition for their skill. Besides, lending to them is <u>more beneficial</u> as they can recommend more borrowers/customers.

- NBFCs are also trying to expand their reach to smaller cities as they see business opportunities in the Micro, Small and Medium Enterprise (MSME) sector and plan to tap the needs of the self-employed professionals, manufacturers and traders to expand their business through secured loans i.e. loan against property (LAP).

The profitability estimate indicates that NBFCs in tier-II and III cities can break-even in 12 months compared to a time span of 18 months in tier I cities. Tier-I cities generally have high quantum of loans and low numbers of customer.

NBFCs:

What are they?

Non-bank financial companies (NBFCs) are financial institutions that provide banking services without meeting the legal definition of a bank, i.e. one that does not hold a banking license.

What they can't do?

- These institutions typically are restricted from taking deposits from the public depending on the jurisdiction. Nonetheless, operations of these institutions are often still covered under a country's banking regulations.
- NBFC cannot accept demand deposits.
- NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself.
- Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.

Who supervises them?

The Reserve Bank of India is entrusted with the responsibility of regulating and supervising the Non-Banking Financial Companies by virtue of powers vested under Reserve Bank of India Act, 1934.

NBFCs lend and make investments and hence their activities are akin to that of banks; however there are a few differences as given below:

- NBFC cannot accept demand deposits.
- NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself.

- Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.

Sources: the hindu.

Centre gives nod for 100% FDI in e-commerce retail

The government has allowed 100% foreign direct investment (FDI) through the automatic route in the **marketplace model** of e-commerce retailing.

Details:

- However, as per the guidelines issued by the Department of Industrial Policy and Promotion (DIPP) on FDI in e-commerce, foreign direct investment has **not been permitted in inventory-based model**.

- According to the guidelines, the e-commerce marketplace **may provide support services** to sellers in warehousing, and logistics., order fulfilment, call centre, payment collection and other services. However, **such entities will not exercise ownership over the inventory**.

- According to the guidelines, **any warranty/guarantee on goods and services sold will be responsibility of the seller, not the market place operator**.

- Also, an **e-commerce firm will not be permitted to sell more than 25% of total sales from one vendor or its group companies**.

These guidelines are expected to bring in more FDI into the sector that attracted maximum inflow of such investments in 2015.

What is Marketplace Model?

The marketplace model has been defined as providing an "**information technology platform by an e-commerce entity on a digital and electronic network to act as a facilitator between buyer and seller**." Example – Amazon, Flipkart

Inventory-based model:

An **inventory-led model** is defined as one where the *e-commerce entity* owns the inventory of goods and services and sells directly to consumers. Earlier Flipkart used to be inventory based e-commerce venture.

Implications:

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This move could potentially end the discount wars, much to the disappointment of consumers. This is because the rules now prohibit marketplaces from offering discounts and capping total sales originating from a group company or one vendor at 25%. With this, online marketplaces will now not be allowed to directly or indirectly influence pricing of products and services on the platform.

  ▪ This could, however, level the playing field with offline stores, which have witnessed a slump in footfalls corresponding to the increase in e-commerce.

Analysis:

The press note issued by the department of industrial policy and promotion (DIPP) said 100% FDI via the automatic route would be allowed only for e-commerce players under the marketplace model, and not under the inventory led model. This means that companies such as Amazon and Alibaba can set up an online marketplace legally now where sellers can hawk their products. But the policy does not allow Amazon or Flipkart to become a seller.

What necessitated this policy?

So far, India has allowed 100% foreign investment in business-to-business (B2B) e-commerce but none in retail e-commerce—i.e., business-to-consumer, or B2C.

  ▪ Even so, Indian e-commerce companies such as Flipkart and Snapdeal have been following the marketplace model—which was not defined—and attracting large foreign investments. Marketplaces essentially act as a platform connecting sellers and buyers.

  ▪ This had led to allegations from time to time by brick-and-mortar stores that Indian e-commerce companies were flouting existing policy norms to gain an unfair advantage, given that the government does not allow FDI in multi-brand retail companies.

Sources: the hindu.

ADB lowers India's growth forecast to 7.4 % for 2016-17

The Asian Development Bank has lowered India's growth forecast to 7.4% from an earlier estimate of 7.6% for the financial year ending March 31, 2017.

Why?

According to ADB, this is mainly due to the failure of the government to push through the Goods and Services Tax and the Land and Labour Reforms.

<u>Other important observations made by the bank:</u>

- India is one of the fastest growing large economies in the world and will likely remain so in the near-term. India's gross domestic product is forecast to grow to 7.8% for the fiscal year to March 2018.

- During the fiscal year ended March 31, 2016, a pickup in manufacturing, private consumption, and capital expenditure by the government helped offset a double-digit decline in exports.

- Imports contracted largely due to a sharply lower oil bill, while inflation remained broadly subdued on the back of lower global commodity prices, although there was a pickup in food prices in the second half.

- Measures to encourage more foreign direct investment resulted in a dramatic surge in investment. Ongoing efforts to curb spending and increased tax revenues saw the government achieve its budget deficit reduction target.

- After two years of decline, consumer inflation is likely to accelerate, fuelled by the salary hike for civil servants and a mild pickup in global oil prices, with inflation expected to average 5.4% in the fiscal year ending March 31, 2017, rising to 5.8% in next year.

- During the subsequent financial year, a weak global economy will continue to weigh on exports, particularly India's refined petroleum products, offsetting a further pickup in domestic consumption, due in part to an impending salary hike for government employees on the implementation of the seventh pay commission award.

- Public investment will remain strong as the government taps savings from lower oil costs to boost spending.

- Strengthened public banks and corporate deleveraging will result in an uptick in bank credit and boost private spending, including on infrastructure.

- With government policy actions in place, the ADB expects the business environment to improve.

The bank also notes that India still faces significant challenges to finance the infrastructure it needs to deliver sustainable growth, with funding requirements

estimated at around $200 billion a year through 2017-18. But, public banks' non-performing assets and an overleveraged corporate sector leave limited scope for more private investment in infrastructure and highlight the need for policy actions. However, in 2017-18, strengthened public banks and corporate de-leveraging are expected to result in an uptick in bank credit and boost private spending, including on infrastructure.

Sources: the hindu.

Paper 3 Topic: *Government Budgeting*.

Highlights of Union Budget 2016-17

Union Finance Minister has presented NDA government's second budget.

According to the budget, the nine priority areas of the government are:

1. Agriculture and farmer welfare
2. Rural sector
3. Social sector
4. Education skills and job creation
5. Infrastructure investment
6. Financial sector reforms
7. Governance reforms and ease of doing business
8. Fiscal discipline
9. Tax reforms to reduce compliance burden

The government has also proposed rename Dept. of Disinvestment as Dept. of Investment and Public Asset Management. And fiscal deficit target has been retained at 3.5 per cent of GDP for next fiscal year in a big boost for stocks, currency and bond markets.

Who will get what?

Banks:

- Banks get a big boost: Rs 25,000 crore towards recapitalisation of public sector banks.
- Banking Board Bureau will be operationalised.
- More resources will be raised for additional capital if required.

Farmers:

- Farmers' incomes to be doubled in five years by 2022. Total allocation for agriculture sector has been hiked to Rs. 35,984 crore.

- Big focus on rural distress: Government will spend a record Rs. 38,500 crore on rural jobs programme (MGNREGA).

- Rural road development schemes will get Rs. 19,000 crore, while another Rs. 20,000 crore will be used to fund irrigation schemes.

Infrastructure:

- Continued push for infrastructure development: The finance minister allocated Rs. 2.21 lakh crore for building road and rail infrastructure.

- Proposes to levy infrastructure cess of 1-4 per cent which will make cars costlier.

- 300 urban clusters to be set up under Shyama Prasad Mukherji Rurban Mission.

Black money:

A new amnesty scheme for those holding unaccounted money and assets has been announced. Those declaring undisclosed income under this scheme will have to pay 45 per cent tax.

Taxation:

- The government will not resort to retrospective taxation in future, while proposing a one-time tax dispute resolution for retrospective taxation.

- General anti avoidance tax rule (GAAR) will be implemented from April 1, 2017.

Vulnerable section:

- Target of disbursement under MUDRA increased to 1,80,000 crore.

- A "Krishi Kalyan" cess of 0.5 per cent has been proposed on all services effective June 1, 2016. This will make most of services (such as eating out, buying property, etc.) more expensive.

- Income tax relief for small taxpayers, more taxes for super-rich: Those earnings less than Rs. 5 lakh per annum will get additional relief of Rs. 3,000 on income tax, but the surcharge on super-rich (income of over Rs. 1 crore) has been hiked from 12 per cent to 15 per cent.

- Pollution cess of 1 per cent on small petrol, LPG and CNG cars; 2.5 per cent on diesel cars of certain specifications; 4 per cent on higher-end models.

- Government is launching a new initiative to provide cooking gas to BPL families with state support.
- LPG connections to be provided under the name of women members of family: Rs 2000 crore allocated for 5 years for BPL families.

Budget sets priorities for government spending

Budget 2016-17 has introduced a new **classification system** for the Centre's spending.

The new system divides **Centrally Sponsored Schemes**

(CSS) into **three** categories:

1. Core of the Core.
2. Core
3. Optional Schemes.

Key facts:

- The new system has accorded the Mahatma Gandhi National Rural Employment Guarantee Scheme the highest priority by deeming it 'Core of the Core'.
- This system has been put in place as a run-up to the next financial year, when the Plan/Non-Plan distinction in government expenditure will be done away with.
- As per the new system, the Core of the Core schemes will retain their expenditure allocation framework. For example, MGNREGA had 75 per cent of the material expenditure from the Centre and 25 per cent from the states.
- The Core schemes will have a 60:40 formula, while the Optional schemes will have a 50:50 formula, with the states having the flexibility to decide whether to invest in these or not.
- Under the new classification, eight schemes will be classified as Core of the Core. including MGNREGA and all the umbrella schemes for the upliftment of minorities, Scheduled Castes, and Scheduled Tribes.
- The Core schemes, 33 in number, include schemes as far-ranging as the Krishi Unnati Yojana, the Smart Cities programme, and the modernisation of the police force.

Background:

This system is based on the recommendations of a sub-committee of chief ministers formed by Niti Aayog for the rationalisation of the CSS. The exercise, to rationalise Plan and Non-Plan schemes of all Ministries and Departments, was undertaken by the committee for effective outcome based monitoring of implementation of the programmes and schemes and to ensure optimum utilisation of resources.

Is it a good move?

Yes and why?

The classification is trying to segregate the schemes by importance. The state governments were earlier taking their own decisions regarding many of these schemes. Now the Centre has said that some are important schemes and the states can take their own decisions regarding the others.

No and why?

It is meaningless to have 30-odd specific-purpose transfers (where central funds are transferred for a specific use) without any standard of outcomes. Also, the new system does not address this issue of linking expenditure to outcomes, it simply re-classifies the expenditure.

Sources: the hindu.

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

Pilot phase of eBiz portal may be completed by the year-end

A pilot version of **eBiz**, a **government to business portal**, which aims at improving the ease of doing business in India, is expected to be completed by the end of this year.

- By December 2016 the pilot phase will be completed with the integration of 50 government services related to investors, industries and businesses of the Centre and ten states — Andhra Pradesh (AP), Delhi, Haryana, Maharashtra, Tamil Nadu, Odisha, Punjab, Rajasthan, Uttar Pradesh (UP) and West Bengal.

- These 50 services include 26 related to the Central government and 24 pertaining to the states.

What is eBiz?

Ministry of Commerce and Industry, in 2013, announced the launch of eBiz, India's first **Government-to-Business (G2B)** portal which aims at transforming and developing a conducive business environment in the country.

▪ The eBiz portal is also among the **National e-Governance Plan's integrated mission mode projects**.

Aim and Objective:

The government aims to integrate more than 200 services to the portal within a few years. An objective of the project is to improve India's ranking in the World Bank's Doing Business index.

Who developed it?

It is being developed with the help of **National Institute of Smart Government and IT major Infosys** through the **Public Private Partnership** route.

The **Department of Industrial Policy and Promotion (DIPP) is the nodal Central government agency for the eBiz project**.

What it does?

▪ The portal will provide a one-stop shop for providing G2B services to investors and business communities in India. The portal will also help in reducing the delays and complexity in obtaining information and services.

▪ Businesses that are already operating in India or planning to start operations can use the portal to obtain licences, approvals, clearances, no objection certificates, permits and even for filing of returns.

▪ Once these services pertaining to starting, running and closing down a business – completing the entire lifecycle of a business entity — are integrated to the eBiz portal, it will effectively become a single window clearance mechanism.

▪ Businesses and investors will be able to use the services 24X7 online, including for completing e-forms online, uploading them as well as the required documents as attachments, making payments online, submitting the forms online, tracking the status of applications, receiving SMS alerts from the government, obtaining the needed licenses or permits and downloading the certificates and getting approvals.

In the latest ranking India went up 12 places to 130th in a list of 189 countries. The Centre aims to ensure that India is in the top 50 within the next three years.

Sources: the hindu.

Real Estate Bill

Rajya Sabha recently passed the **Real Estate (Regulation and Development) Bill, 2016**.

Aim of the Bill:

It is aimed at protecting home buyers from real estate developers who fail to deliver on time, and regulating India's murky real estate sector.

Background:

The first draft was rejected last year by the Rajya Sabha, with Opposition leaders saying it favoured developers and did not serve the interests of consumers. The new bill includes as many as 20 amendments or changes, based on the feedback of a parliamentary committee.

Salient features of the bill:

▪ The Bill ensures the timely completion and delivery of flats to the consumer by ensuring that strict regulations will be imposed on developers to ensure timely construction and delivery. It further provides that consumers are entitled to a full refund with interest, if there has been a long delay in the delivery of a flat.

▪ The Bill has put in place a robust mechanism for the publication of accurate project details and disclosures. The Bill mandates that developers need to share final project plans as part of their disclosure terms, with no room for iterations. The Bill also imposes a 10% project cost penalty and upto 3 years in jail. These add a much needed degree of accountability and also protect consumers from this highly prevalent malpractice.

▪ The developers need to **deposit 70% of the collections from buyers in separate accounts** towards the cost of construction including that of land as against a minimum of 50% suggested by the Select Committee.

▪ Norms for registration of projects has been brought down to **plot area of 500 sq.mts or 8 apartments** as against 4,000 sq.mts proposed in the draft Bill in 2013 and 1,000 sq.mts or 12 apartments suggested by the Standing Committee.

▪ Bill ensures that all clearances are completed before the launch of a project. Sections of the Bill mandate that developers have to receive all clearances before

issuing their properties for sale. Most builders offer flats at huge discounts at the pre-launch stage to attract buyers – but without informing consumers about the status of clearances and potential delays in delivery.

- Bill mandates that developers are bound to provide after sales service for properties found to have structural defects, at no extra cost to the consumer. Under the Bill, buyers are simply required to inform the developers of the deficiency within one year of purchase.

- Liability of developers for structural defects has been increased from 2 to 5 years and they can't change plans without the consent of two thirds of allottees.

- **Commercial real estate also brought under the ambit of the Bill** and projects under construction are also required to be registered with the Regulatory Authority.

- Carpet area has been clearly defined which forms the basis for purchase of houses, eliminating any scope for any malpractices in transactions.

- Ending the earlier asymmetry which was in favour of developers, both consumers and developers will now have to pay same interest rate for any delays on their part.

- The Bill provides for arranging Insurance of Land title, currently not available in the market which benefits both the consumers and developers if land titles are later found to be defective.

- Specific and reduced time frames have been prescribed for disposal of complaints by the Appellate Tribunals and Regulatory Authorities.

It should be noted here that real estate contributes 9% to the national GDP and the Bill's passage was seen as crucial to ensuring better regulatory oversight and orderly growth in the industry.

Sources: the hindu.

India's trade likely to be muted for some time, says RBI Governor Rajan

In a bid to allay fears about India's weak exchange rate, Reserve Bank of India Governor Raghuram Rajan recently said that India's exchange rate is broadly in the right place and the country's trade is likely to be muted for some time.

- He said this while delivering the First Ramnath Goenka Memorial Lecture organised by the Indian Express recently.

What else the governor said?

He indicated that Indian trade is likely to be muted for some time. But India is not alone in this. Even, the global trade is weak.

He also noted several other reasons, apart from the exchange rate and the weak global economy, that could be leading to the decline in global trade-

- First, as countries get more developed, they begin to consume services more, which are not generally traded.

- The second reason was that the trade in capital goods has seen a decline.

- Third reason was that countries are increasingly pulling inwards. That is, their supply chains are increasingly being geared towards their own needs rather than the needs of other countries.

Sources: the hindu.

Paper 3 Topic: infrastructure.

Our aim is to electrify every home

Union Power Minister Piyush Goyal recently said that "the NDA government's aim is to electrify every Indian house under the **Deen Dayal Upadhyaya Rural Electrification Scheme** by 2018."

About Deen Dayal Upadhyaya Rural Electrification Scheme:

The scheme, also known as Deen Dayal Upadhyaya Gram Jyoti Yojana, was launched by the Power Ministry after subsuming the previous Rajiv Gandhi Gramin Vidhyutikaran Yojana (RGGVJ) as it rural electrification component.

Aim of the Scheme:

It aims to augment power supply to rural areas and strengthen sub transmission and distribution lines.

Major components of the scheme:

1. To separate agricultural and non agricultural feeders.

2. To strengthen and augment sub transmission and distribution infrastructure in rural areas, including metering of distribution transformers/feeders/consumers.

Benefits:

▪ It would increase the number of hours of power supply in rural areas.

▪ Reduction in peak load.

▪ Improvement in billed energy based on metered consumption.

▪ Providing access to electricity to rural households.

Budget:

The scheme has an outlay of 76000 crore, of which centre has committed to provide a grant of Rs. 63000 crore.

Sources: the hindu.

Government nod for UDAY bonds

The Finance Ministry has approved the issuance of **Ujjwal Discom Assurance Yojana (UDAY) bonds** by four states. They are Uttar Pradesh, Rajasthan, Jharkhand and Chattisgarh.

▪ Manipur and Tripura recently agreed to join UDAY. This takes the total number of states that have agreed to join UDAY to 16. So far, six states have signed the UDAY contract.

How these bonds will help?

State governments can take over 75% cent of discom debt and pay back lenders by issuing bonds. The scheme provides for the remaining 25 per cent of the debt to be paid back through discom-issued bonds. *Total discom debt in the country amounts to Rs.4.3 lakh crore.*

ABOUT UDAY SCHEME:

UDAY is an effort to make these DISCOMs financially and operationally healthy, to be able to supply adequate power at affordable rates, and enable the Governments to make efforts towards 100% Village electrification and 24X7 Power For All.

▪ It envisages to reduce interest burden, cost of power and AT&C losses. Consequently, DISCOM would become sustainable to supply adequate and reliable power enabling 24×7 power supply.

- The scheme provides that States would take over 75% debt of Discoms, as on 30th September, 2015 in two years.

- UDAY has inbuilt incentives encouraging State Governments to voluntarily restructure their debts. These incentives include taking over of DISCOM debt by the States outside the fiscal deficit limits; reduction in the cost of power through various measures such as coal linkage rationalization, liberal coal swaps and priority/additional funding through schemes of MoP & MNRE.

- UDAY is different from earlier restructuring schemes in several ways including flexibility of keeping debt taken over outside fiscal deficit limit, reduction in cost of power and a series of time bound interventions for improving operational efficiency.

- UDAY also provides for measures that will reduce the cost of power generation, which would ultimately benefit consumers.

Sources: the hindu.

Prime Minister Launches Setu Bharatam Programme

Prime Minister Shri Narendra Modi recently launched the **Setu Bharatam programme for building bridges for safe and seamless travel on National Highways**.

About Setu Bharatam Programme:

The Setu Bharatam programme **aims to make all National Highways free of railway level crossings by 2019**. This is being done to prevent the frequent accidents and loss of lives at level crossings.

- 208 Railway Over Bridges (ROB)/Railway Under Bridges (RUB) will be built at the level crossings at a cost of Rs. 20,800 crore as part of the programme.

- In addition to this, about 1500 old and worn down bridges will also be improved by replacement/widening/strengthening in a phased manner at a cost of about Rs. 30,000 crore.

- The Ministry has already invited bids for appointing consultancy for preparing Detailed Project Report for this. The target is to award the consultancy work by March, 2016.

Sources: pib.

Government to build 2.95 crore houses for rural poor

The government recently approved the "**House for All**" scheme to construct 2.95 crore houses in rural areas, setting a 2022 deadline. The Centre has already rolled out the urban component of the scheme with a target of two crore houses.

Key facts:

▪ The "House for All" scheme will be implemented across the country except Delhi and Chandigarh, and its beneficiaries will be identified through the socio-economic caste census.

▪ This scheme will be implemented in two phases. The estimated expenditure for implementing the housing project from 2016-19 is Rs 81,975 crore. It is proposed that one crore households would be provided assistance for construction of pucca house from 2016 to 2019.

▪ Of the total expenditure estimated in housing for all, Rs 68,000 crore would be provided through budgetary provisions and the rest of Rs 21,975 crore will come from borrowing through Nabard.

▪ Importantly, the new scheme has enhanced the unit assistance to Rs 1,20,000 in plain areas and to Rs 1,30,000 in hilly states/difficult areas.

▪ The scheme also envisages setting up a National Technical Support Agency at the national level to provide support in achieving the target set under the project.

Sources: pib.

Paper 3 Topic: *infrastructure energy.*

India at 90th rank in terms of energy security, access: WEF

India has been ranked at the **90th place in a list of 126 countries** compiled by **WEF** on the basis of their ability to deliver secure, affordable and sustainable energy.

▪ The latest Global Energy Architecture Performance Index Report, explored the energy architecture of 126 countries based on their ability to provide energy access across three dimensions of the "energy triangle" — affordability, environmental sustainability, security and access.

Key facts:

- The list was topped by Switzerland followed by Norway and Sweden in the second and third place, respectively.

- Others in the top 10 include France (4th), Denmark (5th), Austria (6th), Spain (7th), Colombia (8th), New Zealand (9th) and Uruguay (10th).

- Among the BRIC nations, Brazil was the top performer as it was ranked at the 25th place, followed by Russia (52nd), India (90th), China (94).

- Meanwhile, major global economies continued to perform "less well" on the index with the exception of France which was placed at the 4th place.

- Among other major economies Germany was ranked at the 24th place, while the United States was at the 48th rank and Japan was at the 50th rank.

Important observations made by the report:

- Regarding India, the report notes that India is facing a vast array of challenges in the power sector in order to meet its growth targets. Nevertheless, electrification appears to have progressed.

- The proportion of the population covered having grown over the past six years by 4 percentage points to 79 per cent. The need to become more energy-efficient, more diverse and less carbon—intensive is especially acute for major emerging economies, making it critical to progress with government responses to these pressures through energy reform.

- The report also says that large emerging economies are pressed both by the need to support economic growth and build resilient and sustainable energy architecture.

- World energy production and imports rose by 3,200 million tonnes of oil equivalent over the last decade, driven by the boom in the Asian economies and led by China and India.

- As per IEA's World Energy Outlook 2015, by 2040, China's net oil imports will be nearly five times those of the United States, while India's will easily exceed those of the EU.

Sources: the hindu.

Hydrocarbon Exploration and Licensing Policy (HELP)

Having recognized the need for concerted policy measures to stimulate domestic production of oil and gas, the Government has enunciated a new policy regime for exploration licensing, the **Hydrocarbon Exploration and Licensing Policy** (HELP).

- The decision will enhance domestic oil and gas production, bring substantial investment in the sector and generate sizable employment. The policy also targets the enhancement of transparency and reduction of administrative discretion.

Four main facets of this policy are:

1. Uniform license for exploration and production of all forms of hydrocarbon.
2. An open acreage policy.
3. Easy to administer revenue sharing model.
4. Marketing and pricing freedom for the crude oil and natural gas produced.

Key features of the Policy:

- There will be a **uniform licensing system** which will cover all hydrocarbons, i.e. oil, gas, coal bed methane etc. under a single license and policy framework.

- Contracts will be based on "**biddable revenue sharing**". Bidders will be required to quote revenue share in their bids and this will be a key parameter for selecting the winning bid. They will quote a different share at two levels of revenue called "lower revenue point" and "higher revenue point". Revenue share for intermediate points will be calculated by linear interpolation. The bidder giving the highest net present value of revenue share to the Government, as per transparent methodology, will get the maximum marks under this parameter.

- An **Open Acreage Licensing Policy** will be implemented whereby a bidder may apply to the Government seeking exploration of any block not already covered by exploration. The Government will examine the Expression of Interest and justification. If it is suitable for award, Govt. will call for competitive bids after obtaining necessary environmental and other clearances. This will enable a faster coverage of the available geographical area.

- A **concessional royalty regime** will be implemented for deep water and ultra-deep water areas. These areas shall not have any royalty for the first seven years,

and thereafter shall have a concessional royalty of 5% (in deep water areas) and 2% (in ultra-deep water areas). In shallow water areas, the royalty rates shall be reduced from 10% to 7.5%.

▪ The contractor will have **freedom for pricing and marketing** of gas produced in the domestic market on arms length basis. To safeguard the Government revenue, the Government's share of profit will be calculated based on the higher of prevailing international crude price or actual price.

Significance of the new policy:

The new policy regime marks a generational shift and modernization of the oil and gas exploration policy. It is expected to stimulate new exploration activity for oil, gas and other hydrocarbons and eventually reduce import dependence.

▪ It is also expected to create substantial new job opportunities in the petroleum sector. The introduction of the concept of revenue sharing is a major step in the direction of "minimum government maximum governance", as it will not be necessary for the Government to verify the costs incurred by the contractor.

▪ Marketing and pricing freedom will further simplify the process. These will remove the discretion in the hands of the Government, reduce disputes, avoid opportunities for corruption, reduce administrative delays and thus stimulate growth.

Sources: the hindu.

Annual Target of Electrifying 7000 Villages Achieved

The government has achieved its annual target of electrifying 7000 villages during this (2015-16) fiscal year under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY).

About Deen Dayal Upadhyaya Rural Electrification Scheme:

The scheme, also known as Deen Dayal Upadhyaya Gram Jyoti Yojana, was launched by the Power Ministry after subsuming the previous Rajiv Gandhi Gramin Vidhyutikaran Yojana (RGGVJ) as it rural electrification component.

Aim of the Scheme: It aims to augment power supply to rural areas and strengthen sub transmission and distribution lines.

Major components of the scheme:

- To separate agricultural and non agricultural feeders.
- To strengthen and augment sub transmission and distribution infrastructure in rural areas, including metering of distribution transformers/feeders/consumers.

Benefits:

- It would increase the number of hours of power supply in rural areas.
- Reduction in peak load.
- Improvement in billed energy based on metered consumption.
- Provides access to electricity to rural households.

Budget:

The scheme has an outlay of 76000 crore, of which centre has committed to provide a grant of Rs. 63000 crore.

Sources: pib.

Paper 3 Topic: *infrastructure-airways.*

Carriage by Air Amendment Bill gets Rajya Sabha nod

The **'Carriage by Air (Amendment) Bill, 2015**', has been passed by the Upper House with changes. It was cleared by the Lok Sabha in December 2015.

Implications:

- This bill would enhance compensation for air travellers in case of death, injury, lost baggage or even inordinate delay in flights.
- Once the legislation is implemented, Indian airlines would be required to pay compensation amount that is equivalent to the rates paid by their global counterparts.
- The legislation would allow the government to revise the liability limits of airlines in line with the Montreal Convention, which was acceded to by India in May 2009.

Background:

The Bill amends the Carriage by Air Act, 1972. The Act regulates carriage by air and gives effect to the Warsaw Convention, 1929, the Warsaw Convention as amended by the Hague Protocol, 1955, and the Montreal Convention, 1999.

- The Act also provides for application of the international rules to domestic travel, subject to exceptions and adaptations.

Montreal Convention:

The Montreal Convention establishes airline liability in the case of death, injury or delay to passengers or in cases of delay, damage or loss of baggage and cargo.

- The Convention also provides for reviewing the limits of liability of the air carriers every five years.

- **India acceded to the Montreal Convention in May 2009**.

Sources: the hindu.

Air passengers to get higher compensation for delays, baggage loss

The '**Carriage by Air (Amendment) Bill, 2015**', has been passed by the parliament. It was cleared by the Lok Sabha in December 2015 and Rajya Sabha recently.

Implications:

- Once this bill gets the nod of the president and becomes an act, the law would require Indian carriers to pay compensation amount that is equivalent to the rates paid by their global counterparts.

- This bill would enhance compensation for air travellers in case of death, injury, lost baggage or even inordinate delay in flights.

- The legislation would allow the government to revise the liability limits of airlines in line with the Montreal Convention, which was acceded to by India in May 2009.

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- The Act also provides for application of the international rules to domestic travel, subject to exceptions and adaptations.

Financial implications:

- The compensation in case of death in an air accident or injury will go up to around Rs. 1.05 crore, up from the present Rs. 93 lakh. This amount will be

computed on the basis of SDR (Special Drawing Rights). The currency value of the SDR is based on market exchange rates of a basket of major currencies – U.S. dollar, euro, Japanese yen and pound sterling. One SDR is equivalent to Rs. 93.

- The liability for flight delays will increase to Rs. 4.36 lakh from Rs. 3.86 lakh. In case of destruction, loss or inordinate delays in case of cargo carriage, the liability amount has been raised from Rs. 1,581 to Rs. 1,767.

- For destruction, loss, damage or delay of baggage, the domestic airlines will have to pay Rs. 1.05 lakh from the present Rs. 93,000.

Montreal Convention:

The Montreal Convention establishes airline liability in the case of death, injury or delay to passengers or in cases of delay, damage or loss of baggage and cargo. The Convention also provides for reviewing the limits of liability of the air carriers every five years. **India acceded to the Montreal Convention in May 2009**.
Sources: the hindu.

Paper 3 Topic: _e-technology in the aid of farmers._
e-market platform

Union Finance Minister Arun Jaitley, in his budget, announced that a Unified Agricultural Marketing e-platform will be dedicated to the nation shortly.

- Analysts, welcoming this announcement, have said that such an e-market platform would remove inter-state barriers in moving farm produce and could be a game changer.

What's required for such a platform?

1. An amendment of APMC act.
2. Physical logistical support for farmers to transport their produce.

An amendment to APMC act empowers state governments to notify commodities and designate markets and market areas where the regulated wholesale trade takes place. SO far, 12 states have amended this act.

Benefits associated:

- This would benefit farmers and consumers alike by ensuring fair prices.

- This would also open up the agri marketing sector to foreign capital for marketing food products produced and manufactured in India, and would also create vast employment opportunities.

Sources: the hindu.

Rajasthan celebrates first IT Day, launches connectivity network

Rajasthan recently (21ˢᵗ May) celebrated its **first IT day**.

- The first IT Day was based on the theme '**Promotion of IT Start-ups**', in line with the State's focus on empowering start-ups.

RajNET:

On the occasion of Rajasthan's first IT Day, the State government has launched RajNET — a wide area network connecting the State capital with all 9,894 gram panchayats and 183 municipal areas.

- RajNET aims to strengthen connectivity and allow the inclusion of remote areas through Information Technology.
- Built as a multimode connectivity network (through VSAT and terrestrial linkage), RajNET facilitates voice, video and data connection, enabling effective delivery of citizen services like Bhamashah, e-Mitra and MNREGA across the State, including its remotest areas.

Sources: the hindu.

- Built as a multimode connectivity network (through VSAT and terrestrial linkage), RajNET facilitates voice, video and data connection, enabling effective delivery of citizen services like Bhamashah, e-Mitra and MNREGA across the State, including its remotest areas.

Sources: the hindu.

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

A 'meta-skin' to cloak objects from radars

Scientists have developed a new flexible, stretchable and tunable "**meta-skin**".

What it does?

It can protect objects from radar detection, and may help develop next generation of stealth aircraft or even invisibility cloaks.

What is "Meta-skin"?

The meta-skin takes its name from **metamaterials**, which are composites that have properties not found in nature and that can manipulate electromagnetic waves.

How it operates?

By stretching and flexing the polymer meta-skin, it can be tuned to reduce the reflection of a wide range of radar frequencies.

- The stretchable polymer skin doesn't visually hide objects, but makes them invisible to radar. Rows of small, liquid-metal devices effectively trap radar waves, rendering the cloak and the cloaked undetectable.

- The devices are split ring resonators, which have been lined up and sandwiched in layers of silicone sheeting. Inside the resonators is a liquid metal alloy called galinstan. Each resonator acts like a small curved piece of liquid wire. The resonators serve as electric inductors while the gaps between them act as electric capacitors.

- Working in conjunction, the inductors and capacitors trap radar waves within a certain frequency. Because the meta-skin is stretchable, it can be pulled tight to augment the range of radar frequencies trapped by the resonators.

Applications:

The technology will find many applications in electromagnetic frequency tuning, shielding and scattering suppression.

Details:

- With this, the researchers have proved that electromagnetic waves can be suppressed with flexible, tunable liquid-metal technologies.
- Tests showed radar suppression was about 75% in frequency range of 8 to 10 gigahertz. When objects are wrapped in the meta-skin, the radar waves are suppressed in all incident directions and observation angles.
- The technology is different from traditional stealth technologies that often only reduce the backscattering, ie, the power reflected back to a probing radar.

Sources: toi.

Scientists use micro-organisms to produce 'green' plastic

Korean researchers have developed a unique **biorefinery system** to create non-natural polymers from natural sources, allowing various plastics to be made in an environmentally-friendly and sustainable manner.

- Researchers have developed metabolically engineered **Escherichia coli** strains to synthesise non-natural, biomedically important polymers including PLGA or poly (lactic-co-glycolic acid) – previously considered impossible to obtain from bio-based materials.

Significance of this development:

As climate change technology becomes more important, this research on the biological production of non-natural, high value polymers has a great impact on science and industry.

Background:

In recent years, biorefineries which transform non-edible biomass into fuel, heat, power, chemicals and materials have received a great deal of attention as a sustainable alternative to decreasing the reliance on fossil fuels.

- Renewable non-food biomass can potentially replace petrochemical raw materials to produce energy sources, useful chemicals or products such as plastics, lubricants, paints, fertilisers and vitamin capsules.

Sources: toi.

New mini fuel cell powers drones for over an hour

Scientists have developed a miniaturised fuel cell that can power drones for more than one hour and may lead to smartphone batteries that require charge only once a week.

About the Cell:

The **solid oxide fuel cell (SOFC)**, developed by researchers in South Korea, may replace lithium-ion batteries in smartphones, laptops, drones, and other small electronic devices.

- The SOFC, referred to as a third-generation fuel cell, has been intensively studied since it has a simple structure and no problems with corrosion or loss of the electrolyte.

- This fuel cell converts hydrogen into electricity by oxygen-ion migration to fuel electrode through an oxide electrolyte.

- Typically, silicon has been used after lithography and etching as a supporting component of small oxide fuel cells. This design, however, has shown rapid degradation or poor durability due to thermal-expansion mismatch with the electrolyte, and thus, it cannot be used in actual devices that require fast On/Off.

- The research team developed, for the first time in the world, a new technology that combines porous stainless steel, which is thermally and mechanically strong and highly stable to oxidation/reduction reactions, with thin-film electrolyte and electrodes of minimal heat capacity.

- Performance and durability were increased simultaneously. In addition, the fuel cells are made by a combination of **tape casting-lamination-cofiring (TLC)** techniques that are commercially viable for large scale SOFC.

The research team expects this fuel cell may be suitable for portable electronic devices such as smartphones, laptops, and drones that require high power-density and quick on/off. They also expect to develop large and inexpensive fuel cells for a power source of next-generation automotive.

Sources: the hindu.

Finally, a bacterium that degrades polluting plastics identified

A bacterium species capable of breaking down plastic — polyethylene terephthalate (PET) — has been identified by a team of Japanese researchers.

How it works?

The bacterium uses two enzymes in sequence to break down the highly biodegradation-resistant polymer PET.

- First, the bacterium adheres to PET and produces an intermediate substance through hydrolysis.
- The second enzyme then works with water and acts on this intermediate substance to produce the two monomers — ethylene glycol and terephthalic acid — used for making PET through polymerisation.

However, the researchers are still not sure about the evolution of this bacterium. Also, is not clear what natural processes were at play for the two unique enzymes capable of breaking down PET in sequential steps to evolve.

Significance of these findings:

Plastic — polyethylene terephthalate (PET)- has been littering the environment for the last 70 years and, in 2013, 56 million tonnes of PET were produced worldwide. This development would help protect the environment.

Sources: the hindu.

Google to submit fresh proposal for Loon Project

The government has asked Google for a fresh proposal for testing its balloon-based Internet technology for the Loon Project in India because of interference issues in the frequency band.

Background:

Google India had approached the Department of Electronics and Information Technology to conduct a pilot test of the Project Loon in India. The matter was discussed with all stakeholders and it was concluded that frequency band 700-900 MHz, to be used in the pilot test of Project Loon, is being used at present by cellular operators and if the pilot is carried out it will lead to interference with cellular transmissions.

About Project Loon:

Project Loon is a research and development project being developed by Google X with the mission of providing Internet access to rural and remote areas.

- The project uses high-altitude balloons placed in the stratosphere at an altitude of about 32 km to create an aerial wireless network with up to 3G-like speeds. It has already tested this technology in New Zealand, California (in the US), and Brazil.

How it operates?

The balloons are maneuvered by adjusting their altitude to float to a wind layer after identifying the wind layer with the desired speed and direction using wind data from the National Oceanic and Atmospheric Administration (NOAA).

- Users of the service connect to the balloon network using a special Internet antenna attached to their building.

- The signal travels through the balloon network from balloon to balloon, then to a ground-based station connected to an Internet service provider (ISP), then onto the global Internet.

Why stratosphere was chosen?

Google asserts that the stratosphere is advantageous because of its relatively low wind speeds and minimal turbulence. Google also claims that it can model, with reasonable accuracy, the seasonal, longitudinal, and latitudinal variations in wind speeds within the 18–25 km stratospheric layer.

Significance of this project:

- The technology designed in the project could allow countries to avoid using expensive fiber cable that would have to be installed underground to allow users to connect to the Internet.

- This will also greatly increase Internet usage in developing countries in regions such as Africa and Southeast Asia that can't afford to lay underground fiber cable.

- The project also brings Internet access to remote and rural areas poorly served by existing provisions, and improves communication during natural disasters to affected regions.

Sources: BS.

Fiber Grid

Andhra Pradesh government has launched **AP Fiber Grid project**. In this regard, the government has signed a MoU with Cisco as technical partner for the project.

About the Project:

The project aims to set up State-wide high-speed optical fibre infrastructure leveraging the existing assets of the electricity transmission/distribution companies such as electric poles and sub-stations to provide last mile connectivity to 1.3 crore households.

- Under the project, Cisco will complete aerial cable connectivity in North Andhra by April-end and across the entire State by July-end.
- The total cost for aerial cables to provide internet, telephone and 100 free-to-air channels is Rs.330 crore.
- In the second phase, underground cable network will be laid. Various software and contents like information on education and agriculture would be provided on the TV monitor to all households.
- AP State FiberNet Ltd, the nodal agency which is implementing the project, will provide 15 Mbps connection to households at Rs.149 and to 100 Mbps to offices at Rs.999 per month by involving local cable operators.

Sources: the hindu.

Solar for Refrigerator and air conditioner

A Chennai-based company has showed that solar power can be used to power air conditioner and refrigerator.

- This has been made possible by the use of thin film solar panels. The company has replaced the conventional silicon crystalline panels with thin film solar panels.
- Though efficiency of thin film panel is the same as silicon panel at 25 degree C, the **energy yield of thin film is higher than silicon panel**. This is because power rating is done at 25 degree C. In India, the outside temperature far exceeds 25 degree C, especially during summer. **And for every 1 degree C increase in temperature, the loss in power rating is 0.5% in the case**

of silicon panels; it is only 0.25% with thin films. So 5% more energy output is achieved by thin film panels.

- Another advantage with the thin film panel is that unlike silicon panels where power production gets completely cut off even if a small part of the panel is covered by shade, only that part of the thin film panel that is not exposed to sunlight stops producing power.

Sources: the hindu.

British troops test 'invisibility cloak'

British troops recently tested a Harry Potter-style "**invisibility cloak**". This cloak allows them to hide from the enemy.

- The cloak is known as "**Vatec**" and allows soldiers to hide even from infrared and heat-searching devices.

Background:

This cloak attempts to replicate the special ability of **cephalopods** such as the octopus and squid to blend in with the environment to evade their predators. These creatures' skin has pigment-rich cells called**chromatophores** that change colour in response to external factors such as the presence of a predator. Researchers have developed a process that mimics this ability with a technology known as visual appearance modulation.

How it operates?

Using a technology known as visual appearance modulation, the material they developed has one side that contains tiny light-sensitive cells that are sensitive to the colours of the environment. Once colours are detected, electrical signals trigger the top layer to imitate those colours using heat-sensitive dyes, a process that takes place in as fast as two to three seconds.

The cloak has few advantages:

- The flexible fabric has a crinkly texture so that even when it is laid out flat it has some depth, i.e. a multi-level aspect.

- The material can be formed into many different complex shapes, and keep those shapes – mimicking all types of man-made or natural terrains.

Sources: the hindu.

BEL-Thales joint venture to develop PHAROS fire control radar

Thales and BEL-Thales Systems Limited (BTSL), the joint venture between Bharat Electronics Limited (BEL) and Thales, have signed a partnership agreement for the joint development of the **PHAROS fire control radar**.

Details:

- This strategic co-operation partnership agreement will allow Thales and BTSL to jointly develop PHAROS, a fire control radar for both gun and missile systems.

- This joint development will strengthen the co-operation of Thales and BTSL in the field of innovative technologies. The responsibility of overall system design will be borne by Thales.

- BTSL will develop the mechanical design and radar processing modifications while Thales will be responsible for the design and production of the radar antenna. BTSL will carry out its share of the development work in Bengaluru.

- This co-development agreement between Thales and BTSL is in line with the 'Make in India' vision of the Government of India.

- The jointly developed PHAROS system will cater to both domestic Indian and international market requirements.

PHAROS:

PHAROS is an **all-weather multi-target** tracking radar that can be fitted on guns and missiles.

- PHAROS provides defence against small, fast moving and highly manoeuvrable air and surface targets that may also be encountered in littoral missions.

- The multiple target tracker is capable of simultaneously controlling — in all weather conditions — the engagement of these targets with guided ammunition.

Sources: the hindu.

Paper 3 Topic: *IPR related issues.*

U.S. industry body says India agreed to not issue 'compulsory' drug licences

The U.S.-India Business Council (USIBC) to the U.S. Trade Representative (USTR) recently revealed that India has given private assurances to the US that it will not

grant licences allowing local firms to override patents and make cheap copies of drugs by big Western drug makers.

▪ USIBC is reviewing global intellectual property laws for an annual report identifying trade barriers to U.S. companies.

Background:

It should be noted here that the USTR has placed India on its "**priority watch**" list for two years in a row saying the country's patent laws unfairly favour local drug makers.

▪ A bone of contention has been a legal provision that allows the overriding of patents on original drugs and granting of '**compulsory licences**' to local firms to make cheaper copycat medicines.

▪ India can grant such licences under certain conditions, such as public health emergencies, to ensure access to affordable medicines.

▪ It granted the first such licence in 2012, allowing local firm Natco Ltd. to sell a copy of German drugmaker Bayer's cancer medicine Nexavar at a tenth of the price. Since that ruling, big Western pharmaceutical companies have criticised India's patent law and lobbied for it to be changed.

All about Compulsory licenses:

Compulsory licenses are generally defined as "**authorizations permitting a third party to make, use, or sell a patented invention without the patent owner's consent**."

▪ Under Indian Patent Act, 1970, the provision with regard to compulsory licensing is specifically given under Chapter XVI. The conditions which need to be fulfilled in order for a compulsory licence to be granted are also laid down under Sections 84 and 92 of the Act.

▪ Under Section 84 (1) of the Indian Patent Act, any person may request a compulsory license if, after three years from the date of the grant of a patent, the needs of the public to be covered by the invention have not been satisfied; the invention is not available to the public at an affordable price; or the patented invention is not "worked in," or manufactured in the country, to the fullest extent possible.

Sources: the hindu.

India to appeal WTO verdict in solar case

India has decided to appeal against the World Trade Organization's (WTO) verdict over its policy relating to solar power equipment.

- Meanwhile, the government is also examining options to file a case against the US in the World Trade Organisation based on programmes run by American state governments which give protection to domestic manufacturers.

Background:

A World Trade Organization (WTO) panel, in February 2016, ruled against India in a dispute raised by the US over the country's solar power programme, requiring the government to offer a level playing field to both foreign and domestic manufacturers of solar panels.

- The panel found that the domestic content requirement imposed under India's national solar programme is inconsistent with its treaty obligations under the global trading regime.

- The United States had challenged the rules on the origin of solar cells and solar modules used in India's national solar power programme. A requirement that certain cells and modules be made in India fell afoul of WTO rules on discriminating against imports.

- The United States said its solar exports to India had fallen by 90% from 2011, when India imposed the rules.

India's Solar Mission offers a subsidy of up to Rs 1 crore per MW to solar developers sourcing components from local manufacturers. It also stipulates that 10% of the solar capacity target of 100,000 MW by 2022 should be built with domestically manufactured solar modules.

How India defends its move?

India principally relies on the 'government procurement' justification, which permits countries to deviate from their national treatment obligation provided that the measure was related to "the procurement by governmental agencies of products purchased for governmental purposes and not with a view to commercial resale or use in production of goods for commercial sale".

- India also argued that the measure was justified under the general exceptions since it was necessary to secure compliance with its domestic and international law obligations relating to ecologically sustainable development and climate change.

- Besides, it is also being said that only a small portion of demand can be met by India, leaving still a substantial market for foreign component makers.

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.*

Fast Radio Bursts (FRBs)

Astronomers have, for the first time detected, repeated short bursts of mysterious and powerful radio waves.

Where did they come from?

Experts predict that these bursts, also known as **Fast Radio Bursts (FRBs)**, originated from an extremely powerful object, probably an enigmatic source that is likely located beyond the edge of the Milky Way galaxy.

Where they were detected?

These bursts were detected by **Arecibo radio telescope**, which is located in Puerto Rico. This is the **world's largest radio telescope**. *Puerto Rico is a dependent territory of The United States Of America.*

What are FRBs?

They are high energy astrophysical phenomenon manifested as a transient radio pulse lasting only a few milliseconds.

- Most theories suggest that such burst generally occur from cataclysmic incidents that destroy their source- a star exploding in a supernova or a neutron star collapsing collapsing into a black hole.

Sources: the hindu.

With IRNSS almost up in orbit, ground centres get into place

With IRNSS-1G slated to be launched in March this year, the national space agency ISRO is quickly putting across cities the last pieces of ground-based support infrastructure of the system. The sixth spacecraft, IRNSS-1F, is slated to be launched on 11ᵗʰ March from Sriharikota.

- ISRO is getting closer to completing the seven-spacecraft regional navigation system in space by April as planned.
- The nerve centre of IRNSS, the ISRO Navigation Centre, is at Byalalu on the outskirts of Bengaluru and is part of the 21 ground locations.

<u>What is being done?</u>

ISRO is adding a back-up for it at Lucknow. Four more centres providing different vital services are also coming up.

- Among them are data receiving and processing centres; units that have instruments such as atomic clocks for keeping accurate time, which is essential in navigation; and those that generate and transmit navigation parameters and maintain the spacecraft in position all the time.

<u>About Ground Segment of IRNSS:</u>

The ground segment, estimated to cost Rs. 300 crore, is part of the Rs. 1,420-crore IRNSS scheme, which was approved in May 2006.

- Currently, the IRNSS ground segment is operational on a 24/7 basis through 13 IRIMS (Indian Range and Integrity Monitoring Stations; 1 IRNSS Network Timing Centre; one ISRO Navigation Centre and one Spacecraft Control Facility with its data communication network.
- The range monitoring IRIMS, which could eventually total 15 to 17, will be spread across Gaggal, Dehradun, Lucknow, Jodhpur, Udaipur, Bhopal, Shillong, Kolkata, Goa, Pune, Kavaratti, Mahendragiri and Port Blair, besides Bengaluru and Hassan.
- A Space Control Facility each will be in Hassan Karnataka— where the Master Control Facility for communication satellites functions since many decades — and its alternative centre in Bhopal.

Navigation satellites provide three main data, namely PNT: information on position, navigation and time. The data is important for a host of users, from the military to

managers of air land and sea transport up to the man on the street looking to reach somewhere.

About IRNSS:

• What is it?

IRNSS is an independent regional navigation satellite system designed to provide position information in the Indian region and 1500 km around the Indian mainland.

• What all services are provided?

IRNSS would provide two types of services, namely Standard Positioning Services available to all users and Restricted Services provided to authorised users.

• How many more satellites to be launched?

As of now, 5 satellites are launched out of total 7. Two more satellites will be launched by April 2016.
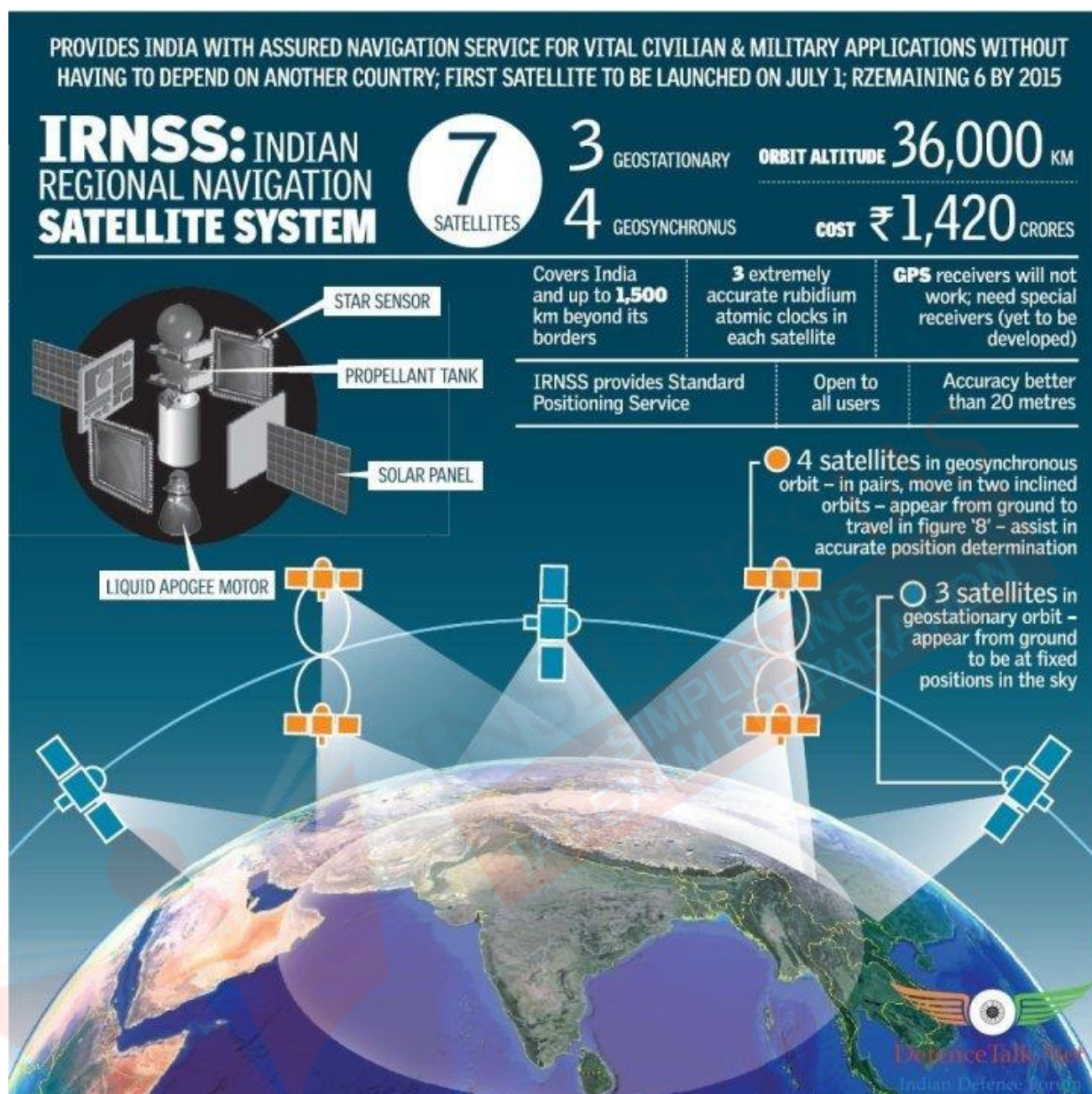
Significance of IRNSS:

Once fully operational, the National Space Agency is aiming to reduce the country's dependence on foreign navigational systems such as the US Global Positioning System (GPS) and the Russian GLONASS.

Applications of IRNSS:

- Terrestrial, Aerial and Marine Navigation.
- Disaster Management.
- Vehicle tracking and fleet management.
- Integration with mobile phones.

- Precise Timing.
- Mapping and Geodetic data capture.
- Terrestrial navigation aid for hikers and travelers.
- Visual and voice navigation for drivers.

Other Global Navigational Systems:

- As of now, only the United States NAVSTAR Global Positioning System (GPS) and the Russian GLONASS are global operational GNSSs.
- China is in the process of expanding its regional Beidou navigation system into the global Compass navigation system by 2020.
- The European Union's Galileo positioning system is a GNSS in initial deployment phase, scheduled to be fully operational by 2020 at the earliest.
- France (DORIS), India, and Japan are in the process of developing regional navigation systems.

Sources: the hindu.

World's thinnest lens developed

Australian scientists have developed world's thinnest lens which is 2000 times thinner than human hair.

- The newly developed lens is 6.3 nanometres thick. Previous versions of lenses were 50 nanometres thick.
- Scientists have used a crystal of **molybdenum disulphide** as a special ingredient in this lens.
- This lens could have revolutionary applications in medicine, science and technology and can also be used to create bendable tv and computer screens.

How this was made possible?

Scientists discovered that single layers of molybdenum disulphide, 0.7 nanometres thick, had remarkable optical properties, appearing to a light beam to be 50 times thicker, at 38 nanometres. This property, known as optical path length, determines the phase of the light and governs interference and diffraction of light as it propagates.

Key facts:

- Molybdenum disulphide is in a class of materials known as chalcogenide glasses that have flexible electronic characteristics that have made them popular for high-technology components.

- Molybdenum disulphide crystal's refractive index, the property that quantifies the strength of a material's effect on light, has a high value of 5.5. For comparison, diamond, whose high refractive index causes its sparkle, is only 2.4, and water's refractive index is 1.3.

- Also, it survives at high temperatures, is a lubricant, a good semiconductor and can emit photons too.

Sources: the hindu.

ICANN submits Internet transition plan to US government

The **Internet Corporation for Assigned Names and Numbers (ICANN)** recently submitted the plan for the global stewardship of the internet to the US government for review.

Details:

The plan aims to maintain Internet governance under a "multi-stakeholder" model which avoids control of the online ecosystem by any single governmental body.

- The plan is the result of an inclusive, global discussion among representatives from government, large and small business, technical experts, civil society, researchers, academics and end users.

- It provides a comprehensive package to transition the US Government's stewardship of the internet's key technical functions, called the IANA (Internet Assigned Numbers Authority), and proposes ways to enhance ICANN's accountability as a fully independent organization.

Background:

On 14 March 2014, the US National Telecommunication and Information Administration (NTIA) announced its desire to transition its stewardship of the IANA functions to the global multistakeholder community. The transition is the final step in the long-anticipated privatization of the internet's domain name system, first outlined when ICANN was incorporated in 1998.

Way ahead:

The US government will now review the package to ensure that it meets NTIA's criteria. If approved, implementation of the plan is expected to be completed prior to the expiration of the contract between NTIA and ICANN in September 2016.

- Internet users the world over stand to benefit from its stability, security, and accountability enhancements to Internet governance once the proposal takes effect.

About the Internet Corporation Assigned Names and Numbers (ICANN):

- ICANN is the global body that oversees operation and administration of the Internet domain name system.
- ICANN was formed in 1998.
- It is a not-for-profit partnership of people from all over the world dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and develops policy on the Internet's unique identifiers.
- ICANN doesn't control content on the Internet. It cannot stop spam and it doesn't deal with access to the Internet. But through its coordination role of the Internet's naming system, it does have an important impact on the expansion and evolution of the Internet.
- It is responsible for coordinating the maintenance and methodologies of several databases, with unique identifiers, related to the namespaces of the Internet – and thereby, ensuring the network's stable and secure operation.
- ICANN is governed by an internationally diverse Board of Directors overseeing the policy development process. ICANN's President directs an international staff, working from three continents, who ensure that ICANN meets its operational commitment to the Internet community.

Sources: the hindu.

Dept. of Biotechnology launches fund to tackle anti-microbial resistance

To tackle the threat faced by India from resistance to antimicrobial drugs, the Department of Biotechnology (DBT) — through the **Biotechnology Industry Research Assistance Council (BIRAC)** — has launched a fund.

About the Fund:

- This is an **India-focussed seed fund**.

- DBT has invested an initial $1,00,000 in this fund.

Significance of this fund:

- This fund helps groups in India compete for the Longitude Prize(This is a £ 10 million prize offered by Nesta, a U.K. charity, to any individual group anywhere in the world that develops an affordable, effective diagnostic test to detect resistance to microbes)
- This is also expected to encourage biotechnology start-ups in the country.

Why research in this field is necessary?

India faces increasing instances of tuberculosis patients being resistant to front line drugs. Experts say this is due to lax monitoring and profligate prescription by medical authorities that allow these drugs to be easily available. Indiscriminate usage means that bugs are, overtime, able to resist these medicines.

- The World Health Organisation statistics for 2014 give an estimated incidence figure of 2.2 million cases of TB for India out of a global incidence of 9 million, with instances of drug-resistant TB rapidly rising.

Background:

It can be noted here that, in December 2015, the DBT laid out a strategy, called the National Biotechnology Development Strategy, whereby biotechnology would be at the foundation of a $100-billion industry by 2025, rising from the current $7-$10 billion.

- The National Biotechnology Development Strategy 2015-20 aims to establish India as a world-class bio-manufacturing hub. It intends to launch a major mission, backed with significant investments, for the creation of new biotech products, create a strong infrastructure for R&D and commercialization, and empower India's human resources scientifically and technologically.

Sources: the hindu.

Telecom panel clears entry of virtual operators

In order to allow telecom service providers to improve utilisation of their networks, the Telecom Commission has cleared a proposal to allow **licensing of virtual network operators (VNOs)**. These VNOs, after getting a licence for operations, will be able to buy minutes and bytes to offer voice and data services, respectively.

Who is a VNO?

A virtual network operator is akin to a retailer selling products and services of various companies under one roof, and a customer has to pay a single bill for all items purchased.

▪ Such an operator will primarily provide various services to end consumers by using the underlying network of a network service operator.

Key facts:

▪ VNOs **do not have spectrum of their own** for access service, but can provide access services to its own customers through an agreement with the licensed access provider. A VNO leases bandwidth from various telecom operators to provide voice and data services to customers.

▪ They **cannot participate in spectrum auction** for access services in their service areas, as they cannot have their own spectrum.

▪ VNO will be able to invest in setting up mobile towers and other elements in network required for providing services. However, it will not be able to sign deal directly to interconnect infrastructure laid by it with other telecom operator.

▪ VNO will be able to integrate service and offer it to customer as it wants. There will be **no limit on integration and offering** of services from licence or government that will be available shortly.

▪ In case a VNO has partnered with multiple service providers, then it can offer voice call service of one and data service of other player.

Significance of this move:

▪ The VNO, after obtaining licence from the government for its operations, can function under its own brand offering a plethora of services such as mobile telephony, broadband, wireless hotspots, etc at the last mile and in areas where stressed balance sheets of large telecom companies do not allow them to invest for rolling out infrastructure.

▪ This would also allow telecom companies to leverage network and spectrum investment made by them, as this move will allow the virtual network operators to invest in setting up almost 70% to 80% of the equipment required to offer communication services. And hence, VNOs would contribute to the efficient use of existing telecommunication infrastructure.

▪ VNOs may also offer some relief to telecom PSUs, BSNL and MTNL, which have already adopted a revenue-sharing model focusing on reducing capital expenditure.

Sources: the hindu.

Paper 3 Topic: space.

ExoMars

Europe and Russia recently launched a spacecraft in a joint mission to sniff out signs of life on Mars and bring humans a step closer to flying to the red planet themselves.

▪ The craft, part of the **ExoMars program**, blasted off from the Baikonur spaceport in Kazakhstan on board a **Proton rocket**, starting a seven-month journey through space.

▪ It carries an **atmospheric probe** that is to **study trace gases such as methane**.

Why study Methane?

Methane is a chemical that on Earth is strongly tied to life. Besides, previous Mars missions have detected traces of methane in the planet's atmosphere.

▪ Scientists believe the methane could stem from micro-organisms, called methanogenes, that either became extinct millions of years ago and left gas frozen below the planet's surface, or that some methane-producing organisms still survive.

▪ Another explanation for the methane in Mars's atmosphere could be that it is produced by geological phenomena, such as the oxidation of iron.

About ExoMars:

The ExoMars 2016 mission, a **collaboration between the European Space Agency (ESA) and its Russian equivalent Roscosmos**, is the first part of a two-phase exploration aiming to answer questions about the existence of life on Earth's neighbour.

▪ The ExoMars mission will complement the work of Nasa's Curiosity rover which has spent more than three years on Mars as part of the Mars Science Laboratory (MSL) mission.

- The second part of the ExoMars mission in 2018 will deliver a European rover to the surface of Mars. It will be the first with the ability to both move across the planet's surface and drill into the ground to collect and analyze samples.
- The cost of the ExoMars mission to the European Space Agency, including the second part due in 2018, is expected to be about 1.3 billion euros ($1.4 billion). Russia's contribution comes on top of that.

Sources: the hindu.

Detailed gravity map gives best view yet of Mars

Scientists have created the most detailed **map of Mars' gravity** to date using data from three NASA spacecraft.

- The map was derived using data collected by NASA's Deep Space Network from three spacecraft in orbit around Mars: Mars Global Surveyor (MGS), Mars Odyssey (ODY), and the Mars Reconnaissance Orbiter (MRO).

What has been found out?

Using this data, scientists have found out that Mars has a liquid outer core of molten rock.

Benefits of Gravity Map:

- Provides a glimpse into the hidden interior of the red planet.
- It will be helpful for future Mars exploration because better knowledge of the planet's gravity anomalies helps mission controllers insert spacecraft more precisely into orbit.
- The improved resolution of the gravity map suggests a new explanation for how some features formed across the boundary that divides the relatively smooth northern lowlands from heavily cratered southern highlands.

Sources: the hindu.

Cabinet approves procurement of launch services for GSAT-11

The union cabinet has given its approval for the procurement of launch services and realisation of ground segment for GSAT-11 spacecraft at a cost of Rs.1,117 crore. GSAT-11 will be ready for launch by the end of 2016.

- The ground segment is being realised to address the rural communication requirements.
- The ground segment of GSAT-11 will also enable the utilisation of a small portion of the bandwidth for societal services apart from providing in-orbit testing support.
- It will also provide a high throughput capacity of about 10 Gbps to render broadband connectivity, especially in rural areas.

About GSAT-11:

- In 2009, Government of India had approved the development of GSAT-11, which is touted to be one of the largest Indian communication satellite. GSAT-11 has a mission life of about 15 years.
- GSAT-11 is a four-tonne geostationary communications satellite, which has a mission life of about 15 years.
- The GSAT-11 will not only link all the towns and villages in this country with quality high-speed Wi-Fi service, it will also integrate internet and television services.
- The satellite is currently under development at Department of Space and ISRO facilities.

Sources: the hindu.

Highest peak on Saturn

Scientists working on NASA's ***Cassini mission*** have identified the **highest point on Saturn's largest moon Titan**.

- Titan's highest peak is 10, 948 feet high. It is found within a trio of mountainous ridges called the **Mithrim Montes**.

About Cassini Mission:

Cassini–Huygens is an ***unmanned spacecraft*** sent to the planet **Saturn**. Cassini is the **fourth space probe to visit Saturn and the first to enter orbit**.

- Its design includes a Saturn orbiter and a lander for the moon Titan. The lander, called Huygens, landed on Titan in 2005. The spacecraft was launched on October 15, 1997. This was the first landing ever accomplished in the outer Solar System.
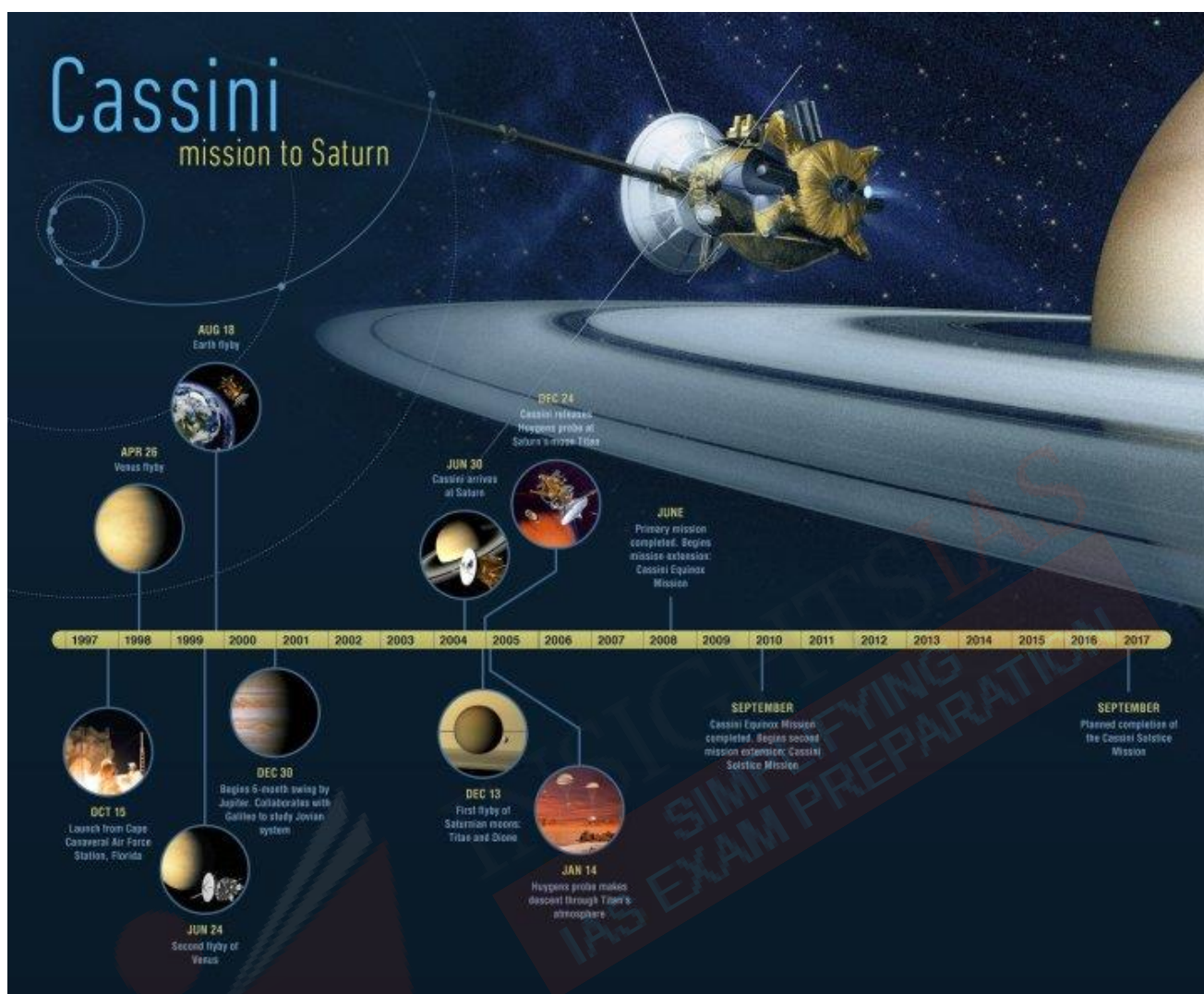
Objectives:

- Determine the three-dimensional structure and dynamic behavior of the rings of Saturn.

- Determine the composition of the satellite surfaces and the geological history of each object.

- Determine the nature and origin of the dark material on Iapetus's leading hemisphere.

- Measure the three-dimensional structure and dynamic behavior of the magnetosphere.

- Study the dynamic behavior of Saturn's atmosphere at cloud level.

- Study the time variability of Titan's clouds and hazes.

- Characterize Titan's surface on a regional scale.

Sources: the hindu, Wiki.

Virtual Earth-Space Telescope Reveals New Details About the Milky Way

Scientists have created a **virtual Earth-space telescope system** with the **highest resolution of any astronomical observation ever made**.

About the telescope:

Researchers created this telescope by combining the **Russian Radio Astron satellite** with the ground-based telescopes. The RadioAstron satellite was combined with the Green Bank Telescope in West Virginia, The Very Large Array in New Mexico, the Effelsberg Telescope in Germany, and the Arecibo Observatory in Puerto Rico. This combined system produces a virtual radio telescope more than 100,000 miles across.

What has been found out?

With this, scientists have unveiled an unusually **hot quasar jet in the Milky Way**.

- Scientists have pointed out these quasar jets at a quasar called **3C 273**, more than 2 billion light-years from Earth.

- Quasars like 3C 273 propel huge jets of material outward at speeds nearly that of light. These powerful jets emit radio waves. The emission was about 100 billion degrees.

- The observations also showed, for the first time, substructure caused by scattering of the radio waves by the tenuous interstellar material in our own Milky Way Galaxy.

What are Quasars?

Quasars are **supermassive black holes at the cores of galaxies**. Quasars, also called quasi-stellar radio sources, are the most energetic and distant members of a class of objects called **active galactic nuclei (AGN)**.

- Their spectra contain very broad emission lines, unlike any known from stars, hence the name "quasi-stellar." Their luminosity can be 100 times greater than that of the Milky Way.

- Quasars are believed to be powered by accretion of material into supermassive black holes in the nuclei of distant galaxies, making these luminous versions of the general class of objects known as active galaxies.

▪ Quasars also emit visible light, ultraviolet rays, infrared waves, X-rays, and gamma-rays.

Sources: the hindu.

Paper 3 Topic: conservation.

Colour-coded categorisation: Government releases list of industries

The government, after re-categorizing, has come up with a list of industries that would now be classified as red, orange or green, and the different rules that they would be subjected to.

Re-categorization and its purpose:

▪ Re-categorization of industries based on their pollution load is a scientific exercise. The old system of categorization was creating problems for many industries and was not reflecting the pollution of the industries. The new categories will remove this lacuna and will give clear picture to everyone.

▪ The purpose of the categorization is to ensure that the industry is established in a manner which is consistent with the environmental objectives.

▪ The new criteria will prompt industrial sectors willing to adopt cleaner technologies, ultimately resulting in generation of fewer pollutants.

▪ Another feature of the new categorization system lies in facilitating self-assessment by industries as the subjectivity of earlier assessment has been eliminated.

▪ This 'Re-categorization' is a part of the efforts, policies and objective of present government to create a clean & transparent working environment in the country and promote the Ease of Doing Business.

What's new?

A new category, **white**, has been added to include the industries that are "**practically non-polluting**". These industries, like air cooler or air conditioning units, chalk factories, biscuit tray units, won't need a green clearance enabling easier financing.

Other categories:

- **Red category:** Includes Cement industry, Petrochemicals, pharmaceuticals, sugar, paper and pulp, nuclear power plants, organic chemicals, fertilizers, fire crackers.

- **Orange category:** Includes coal washeries, glass manufacturing, paints, stone crushers, and aluminium and copper extraction from scrap.

- **Green category:** Includes aluminium utensils, steel furniture, soap manufacturing and tea processing.

The categorisation is based on a pollution index developed by the environment ministry taking into account the emissions, effluents, and hazardous waste generated, and the resources it consumes. ***Industries scoring 60 and above on a scale of 1 to 100 have been rated red. An index between 41 and 59 earns an orange category, while a score between 21 and 39 gets a green. Pollution index lower than 20 have been rated white***.

Sources: pib.

Government signs MoU on conservation of birds of prey

The Government has signed 'Raptor MoU' – a Memorandum of Understanding (MoU) on conservation of birds of prey in Africa and Eurasia.

- The MoU was signed recently at the Convention on Migratory Species Office in Abu Dhabi by the Ambassador of India to the UAE, Shri T.P Seetharam.

- With this, India has become the **56th signatory** State to sign the 'Raptor MoU' that was concluded on October 22, 2008 and came into effect on November 1, 2008.

Background:

The Union Cabinet in December 2015 had approved the proposal of the Ministry of Environment, Forest and Climate Change to sign the 'Raptor MoU', on Conservation of Migratory Birds of Prey in Africa and Eurasia, with the Convention on Conservation of Migratory Species (CMS), or Bonn Convention, under the auspices of the United Nations Environment Programme (UNEP).

- The CMS aims to conserve migratory species throughout their range. **India had become a party to the CMS since November 1, 1983**.

About Raptor MoU:

The Raptor MOU is an **agreement under the Convention on Conservation of Migratory Species (CMS)** and is **not legally binding**.

- The MOU seeks willingness of the signatory Range States for working for conservation of the raptor species and their habitats. Under this, an action plan has been formulated which primarily envisages the conservation action for Raptor species.

- The Raptors MoU extends its coverage to 76 species of birds of prey out of which 46 species including vultures, falcons, eagles, owls, hawks, kites, harriers, etc. also occur in India.

- India's neighbours Pakistan and Nepal are also signatories to this MOU.

Benefits for India:

Considering that the Raptor MOU is also in conformity with the provisions of the existing Wild Life (Protection) Act, 1972, wherein the birds have been accorded protection, India would gain domain knowledge which would be helpful in effectively managing the habitats of these Raptors, including concerted trans-boundary efforts for conservation through interaction with other range countries by signing of the MOU with the CMS.

Sources: the hindu.

February broke global temperature records

According to the recently released NASA data, February broke 100 year old temperature records by a 'shocking' amount.

- The data shows the average global surface temperature in February was 1.35C warmer than the average temperature for the month between 1951-1980, a far bigger margin than ever seen before.

- This has led scientists to declare a '**climate emergency**'.

Factors responsible for this:

Scientists believe that a combination of strong El Nino event in the Pacific Ocean and human-caused warming drove temperatures to such high levels. Another important factor is a '**superheated Arctic**'. Arctic sea ice is at a satellite-record low for the second month in a row. Arctic sea ice extent for February averaged 14.22 million

square kilometers (5.48 million square miles), the lowest February extent in the satellite record.

Sources: the hindu.

National Green Tribunal seeks Centre's response on ban of microplastics

The National Green Tribunal has sought response from the Centre on a plea seeking ban on use of micro-plastics in cosmetic and bodycare products in India alleging their use is extremely dangerous for aquatic life and environment.

- The NGT, in this regard, has issued notice to the ministry of environment and forests and the ministry for water resource and sought their reply on next date of hearing.

What are 'Microplastics'?

Microplastics are plastic pieces or fibres which are very small and according to recent United Nations reports, these are dangerous for the aquatic life and environment. Microplastics measure less than five milimetres.

Need for ban:

- The microplastics or microbeads found in personal care products are always smaller than one milimetre.
- Due to the unregulated production and usage of plastics in microbeads in various cosmetic products available in the market and the excessive usage of such products by the end users is leading to water pollution across the globe.
- Besides, after being washed down the drain, microbeads flow through sewer systems around the world before making their way into rivers and canals and ultimately, straight into the seas and oceans, where they contribute to the huge chunk of plastic soup in the environment.

Sources: the hindu.

Paper 3 Topic: pollution.

New standards for Gensets

The Centre has notified stringent environment standards to make cities and towns shift to less polluting and quieter **gensets**.

Key facts:

157

- This the first time such mandated certifications have been notified for gensets running on LPG or natural gas or in combination with diesel and petrol.
- The primary aim is to control air and noise pollution emanating from the gensets.
- These standards will be revisited in 4-5 years once air and noise emission quality data and technological details pertaining to the gensets are available.

New standards:

- Under the new standards, manufacturers across the country are required to obtain certification for engine products by empanelled agencies which will help in regulating the unorganised sector. It will also help in curbing illegal import of gensets, which have been observed to have higher air and noise pollution levels.
- These standards will be implemented in all states by their respective state pollution control boards with the help of local civic authorities.
- These standards have mandated certification for gensets in terms of `type approval' and `conformity of production' for air emission as well as noise emission.

Background:

These standards were recommended by the Central Pollution Control Board (CPCB) after consultations with industries and other stakeholders.

Recently, the ministry had also notified improved environmental standards for thermal power plants, common effluent treatment plants and cement and sugar industries. New stringent environmental standards for all these industries will go a long way in reducing air pollution.

Sources: pib.

UNESCO adds India's Agasthyamala Biosphere Reserve to its list of perfect biospheres

Home to more than 2000 species of plants, three wildlife sanctuaries and a tiger reserve, the **Agasthyamala Biosphere Reserve** has been included in UNESCO's list of World Biosphere Reserve Network. There are 669 biosphere reserves in as many as 120 countries.

Key facts:

- Out of *18 biosphere reserves* in India, **Agasthyamala Biosphere Reserve is the *tenth one* to be included in the prestigious UNESCO World Biosphere Reserve Network**. The others are Nilgiri, Gulf of Mannar, Sunderban, Nanda Devi, Nokrek, Pachmarh, Similipal, Achanakmar-Amarkantak and Great Nicobar.

- The area falls in the Malabar rainforests and is one of the noted hotspot areas because of its position in the Western Ghats. It covers about 3500 square kilometres, and is part of Tirunalveli and Kankyakumari in Tamil Nadu, and Thiruvananthapuram, Kollam and Patanamthitta in Kerala.

- **Agastya Mala**, the peak after which the reserve is named, rises up to almost 1868 metres above sea level, in Thiruvananthapuram.

- It is estimated that more than 2,250 species of dicotyledonous plants are in the area and 29 are endemic to the region. Many plants are considered endangered too. Researchers have noted that about 400 Red Listed Plants have been recorded from this region. About 125 species of orchids and rare, endemic and threatened plants have been recorded from the reserve.

- There are **three wildlife sanctuaries within the reserve, Shendurney, Peppara, and Neyyar**.

- The **Kalakkad Mundanthurai** Tiger Reserve was recently included as part of the biosphere reserve. Being Tamil Nadu's first tiger reserve, it is also one of the most diverse ecosystems in the country. It rains here for almost eight months out of a year. Besides the eponymous tigers, the reserve is also home to Asiatic elephants, Indian bisons, leopards, various species of bats, and over 200 species of birds.

Biosphere reserves:

The UNESCO World Network of Biosphere Reserves are exemplary of biospheres where people and nature have a harmonious relationship.

- Biosphere reserves in India protect larger areas of natural habitat and often include one or more National Parks and/or preserves, along with buffer zones that are open to some economic uses.

- The first of India's reserves to make it to UNESCO's list was Tamil Nadu's Niligiri Biosphere Reserve in 2000.

- Protection is granted not only to the flora and fauna of the protected region, but also to the human communities who inhabit these regions, and their ways of life.

Sources: the hindu.

Noyyalai Nokki

Noyyalai Nokki project, a project to restore Noyyal River and its tributaries, has been launched. Stakeholders in Coimbatore, Tirupur, and Erode and Karur Districts will jointly take efforts to restore the river through this initiative.

Details:

- The restoration project includes installation of decentralised sewage treatment plants, developing parks where space is available and laying walking paths along the river.
- The project will be implemented on **divide-distribute-develop** model by forming committees for every 500 metres of the river.
- The initiative will involve educational institutions, businesses, the public and the Government.
- To begin with, a survey of the river would be taken up and an estimate of the project would be prepared.
- Norfed (Noyyal River Restoration Federation) will be the nodal organisation for the project and a common plan will be developed for the entire stretch of the river.

The **Noyyal River** rises from the Vellingiri hills in the Western Ghats in Tamil Nadu and passes through Coimbatore, Tirupur, Erode and Karur to join the Cauvery at Noyyal village (total of 160 km).

Sources: the hindu.

Paper 3 Topic: biodiversity.

New frog species found in Biligiri

Scientists have found a new species of bush frog in the **Biligiri Rangaswamy Tiger reserve**

Details:

- The frog is named **Honnametti bush frog** (scientific name: Raorchestes honnametti).

- The species discovered is a **cryptic bush frog** — that is, it resembles another species of Seshachar's bush frog (Raorchestes charius).

- The discovery makes it the first such cryptic species to be found in the Western Ghats. This discovery can lead scientists to understanding the evolutionary history of such species.

Sources: the hindu.

Paper 3 Topic: *Disaster management.*

East coast set to get sixth doppler radar

A new doppler radar to boost the weather forecasting system in the cycloneprone eastern coast will shortly commissioned in Gopalpur in Odisha.

- It will be the **sixth such radar** on the country's east coast. The others are located in Chennai, Kolkata, Machilipatnam, Visakhapatnam and Paradip.

- The radar is **indigenously built by Indian Space Research Organisation (ISRO) and Bharat Heavy Electricals Ltd (BHEL)**.

Significance of this move:

- The move to set up an additional radar assumes significance as the eastern coast is prone to cyclones and better forecast will help authorities in taking timely action. Gopalpur had faced the severe cyclonic storm Phailin in October 2013.

- The India Meteorological Department (IMD) had in November last year installed a doppler radar in Paradip, another coastal district in Odisha which was ravaged by a super cyclone in 1999.

What is 'Doppler Radar'?

Doppler radar is an observational tool for monitoring and predicting severe weather events such as thunder storms, hailstorms, cyclones and tornados within a radius of 300 km. It not only gives information about precipitation but also about wind velocity.

- The Doppler weather radar system helps increase precision in weather forecasting.

Doppler Effect
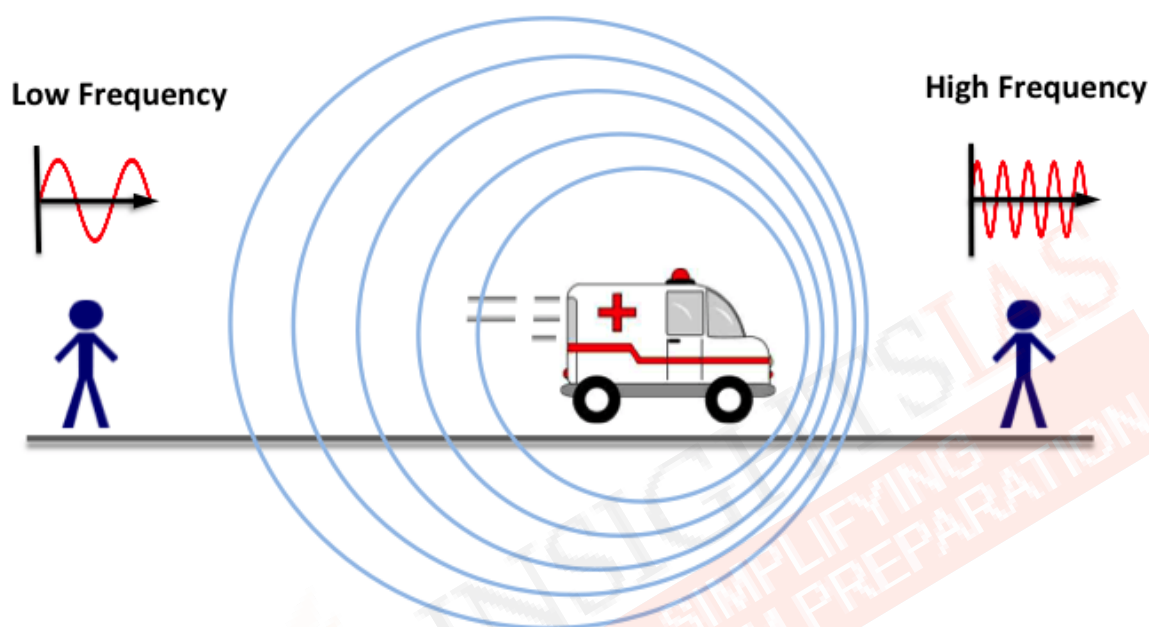
How it operates?

This radar uses the Doppler effect to produce velocity data about objects at a distance. It does this by bouncing a microwave signal off a desired target and analyzing how the object's motion has altered the frequency of the returned signal. This variation gives direct and highly accurate measurements of the radial component of a target's velocity relative to the radar.

Sources: toi.

Facts for Prelims
Indo-Seychelles Joint Training 'Ex Lamitye'

Exercise '**Lamitye – 2016**', seventh in the series of Indo-Seychelles Joint Training Exercises, was recently concluded at Victoria, Mahe Island, Seychelles.

- This exercise aims to improve interoperability between both Armies in jointly fighting Counter Insurgency / Counter Terrorism.

- Focused on interoperability in drills pertaining to Counter Insurgency & Counter Terrorism, a number of activities and exercises were conducted during the joint training.

'Exercise Lamitye' meaning 'Friendship in Creole' has been a bridge between the Armed Forces of India and SPDF since 2001.

Sources: pib.

Indira Gandhi International Airport (IGI)

New **Delhi's** Indira Gandhi International Airport (**IGI**) has retained its number one position in the world for the second consecutive year in **25-40 Million Passengers** Per Annum (MPPA) categories. Airports Council International (ACI) on Monday released new rankings for 2015 Airport Service Quality (ASQ) Awards.

The parameters based on which the IGI Airport bagged the award include improved on-time performance of airlines impacting passenger experience positively, launch of interactive and user-friendly mobile app –**flyDEL**, improvement of ambiance and signages, strong bonding with stakeholders among others. It was also appreciated for upgradation of shopping and eating facilities at the airport. Emphasis was also laid on sanitation.

Operated by the **Delhi International Airport Limited (DIAL)**, the IGI Airport also stands ahead of all other Indian airports by winning maximum number of awards in 2015.

Two more AWACS from Israel

The **Cabinet Committee on Security (CCS)** has cleared the purchase of additional surveillance aircraft from Israel.

- The CCS chaired by PM Modi cleared the proposal to acquire two more **Phalcon Airborne Early Warning and Control Systems (AWACS)** at a cost of Rs. 7,500 crore under a tripartite agreement with Israel and Russia.

AWACS:

The AWACS are advanced radars mounted on an aircraft to give 360 degree coverage to detect incoming aircraft and missiles at long ranges.

- The AWACS platform plays significant role in Indian Air Force's Network-Centric Operations. These aircraft have electronic intelligence (ELINT) and communications intelligence (COMINT)-gathering capabilities that help intercept signals from enemy areas, in monitoring troop build-up and to detect aerial threats.

- It can also detect drones and cruise missiles from a range of 400km.

- India had procured three Phalcon AWACS, Israeli radars mounted on Russian IL-76 transport aircraft, in 2003 at cost of $1 billion.

About CCS:

The Cabinet Committee on Security (CCS) is the **highest executive body** that takes a call on defence matters.

- It **decides on India's defence expenditure**, matters of National Security, and makes significant appointments.

- CCS is **chaired** by the **Prime Minister of India** and comprises the Minister of **Defence**, the Minister of **Finance**, the Minister of **Home** Affairs, and the Minister of **External** Affairs.

Sources: the hindu.

Raisina Dialogue (Update)

The theme of this year's '**Raisina Dialogue**' international conference was '**Asian Connectivity**'. This was the **first conference**. It was **held in India**.

Exercise FORCE 18

Multinational Field Training Exercise (FTX) – Exercise FORCE 18, involving ASEAN Plus countries recently commenced in Pune. This is the **largest Ground Forces Exercise ever conducted on Indian soil** and would be conducted with themes based on 'Humanitarian Mine Action' and 'Peacekeeping Operations'.

ASEAN Plus

ASEAN Plus includes **ASEAN's 10 member states and eight dialogue partner countries** which are China, Japan, South Korea, the US, **India**, Russia, Australia and New Zealand. The Association of Southeast Asian Nations (ASEAN) is a political and economic organisation of ten Southeast Asian countries Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

Plastic ban

Taking a strong stand on the adverse effect of plastic on health and environment, the **Karnataka State government has banned the use of non-essential plastics**. The State Cabinet has approved a final draft notification on the ban in this regard and it will come into effect from the day of publication of a gazette notification slated to be issued next week.

- The decision was taken after studying objections from various stakeholders. This would lead to replacement of all non-essential plastics with eco-friendly material across Karnataka.
- The draft bans the manufacture, storage, sale, distribution and use of plastic carry bags, irrespective of its thickness.
- *Recently, Himachal Pradesh has banned the sale of fast food in non-biodegradable packets from April 1, 2013.*

Dadasaheb Phalke award for veteran actor Manoj Kumar

Veteran actor and director Manoj Kumar will be conferred the **47th Dadasaheb Phalke Award for the year 2015**.

- Manoj Kumar is chosen for his outstanding contribution to the growth and development of Indian cinema.

About the award:

The Dadasaheb Phalke Award is **India's highest award in cinema**. It is presented annually at the National Film Awards ceremony.

- The award is conferred by the **Centre for outstanding contribution to the growth and development of Indian Cinema.**
- The award consists of a Swarn Kamal (Golden Lotus), a cash prize of Rs 10 lakh and a shawl.
- The award is given on the basis of recommendations of a committee of eminent personalities set up by the Centre.
- First presented in 1969, the award was introduced by the Government of India to commemorate Dadasaheb Phalke's contribution to Indian cinema. Phalke (1870–1944), who is popularly known as and often regarded as "the father of Indian cinema", was an Indian film-maker who directed India's first full-length feature film, Raja Harishchandra (1913).

The first recipient of the award was actress Devika Rani. Among 46 awardees, actor Prithviraj Kapoor is the sole posthumous recipient.

Sources: the hindu.

Chapchar Kut

Chapchar Kut, the most important traditional festival of the Mizos is being celebrated across Mizoram and also in the Mizo-inhabited areas in the neighbouring states. It is celebrated after completion of their most arduous task of Jhum operation i.e., jungle-clearing (clearing of the remnants of burning). It is a **spring festival** celebrated with great fervour and gaiety.

New snake species discovered in Gujarat

A team of young Indian researchers and naturalists have recently discovered a new snake genus and species in Gujarat.

- The snake genus has been named **Wallaceophis** in honour of the legendary 19th century British naturalist Alfred Russel Wallace (1823-1913), considered the father of biogeography.

- The snake species has been named **Gujaratenisis** to commemorate the western Indian state where it was discovered.

- The Wallaceophis Gujaratenisis is presently found in just seven localities of Gujarat and virtually nothing is known about its biology.

Sources: the hindu.

SBI in Myanmar

The State Bank of India has been given preliminary approval to open 100% -owned branches in Myanmar.

Stone age culture evidences in Kerala

Archaeologists have discovered many Palaeolithic, Mesolithic, Megalithic, and Neolithic tools and several Megalithic sites in north Kerala.

- Discoveries include the typical Palaeolithic hand-axe from **Vanimel river basin** (Kozhikode) and pointed choppers and side scrapers from **Anakkayam** and **Cheerkkayam** river basin of **Chandragiri**(Kasaragod). These are some of the first-time evidence of Palaeolithic implements in these districts.

- These discoveries also indicate that hand-axe fabrication technique in quartz was also familiar among the prehistoric settlements in the area. The well-polished symmetrical shaped Stone Adzes made of quartz showed the high expertise in quartz fabrication of Neolithic people in Kozhikode.

Global recognition for 'Compassionate Kozhikode'

'**Compassionate Kozhikode**' has been chosen by ITB (Internationale Tourismus-Börse) Berlin, as one of the 50 **inspirational global projects** to highlight as part of its golden jubilee celebrations.

- Not only is the project the **only such initiative from India** to receive the coveted recognition, it is**one of just three in the whole of Asia**.

About the Project:

'Compassionate Kozhikode' aims at bringing government agencies and citizens to volunteer to make Kozhikode an inspirational destination for them to live in, and invite others to visit.

- The project starts from the idea that a destination is first and foremost a place where people live.
- It focuses its efforts on making Kozhikode a better place for its citizens.

Kumkis

To reduce man-animal conflict in **Wayanad wildlife sanctuary in Kerala**, the Kerala State Forest and Wildlife Department has intensified night patrolling by '**Kumki**' (*trained elephants*) in human settlements on the fringes of the sanctuary.

- The Kumkis are trained to scare away wild pachyderms into the forest, either by using their trunk or tusks.

Use of words 'Satyameva Jayate' does not violate law, says Centre

The Bombay High Court has sought responses from actor Aamir Khan and Star TV to a public interest litigation plea by an activist that objects to the use of the phrase Satyameva Jayate , the name of their popular TV programme, as it is a part of the emblem of India.

What has the centre said?

Responding to the petition, the Ministry of Home Affairs (MHA) in its affidavit said the use of the phrase 'Satyameva Jayate' was not in violation of **the State Emblem of India (Prohibition and Improper Use) Act** and State Emblem of India (Regulation of Use) Rules.

- The Act and Rules prohibit improper use of the State Emblem of India as a whole. However, there is no provision which prohibits the use of its part like Satyameva Jayate , the lion, the bull, the horse and so on. Hence the use of the words 'Satyameva Jayate' in a TV programme does not violate any provision of the Act and Rules.

Sources: the hindu.

More than 50 animal species critically endangered: Govt

The Rajya Sabha was recently informed that out of 96,000 animal species in India, 50 have been labeled as "**critically endangered**".

Details:

- Studies conducted by Zoological Survey of India (ZSI) have recorded 96,000 species of animals from India.

- Among these, International Union for Conservation of Nature (**IUCN**) has assessed 18 species of amphibians, 14 varieties of fish, 13 birds and 10 mammals as critically endangered and 310 species as endangered, including 69 fish, 38 mammals and 32 amphibians.

- Besides, as per the data available with Botanical Survey of India (**BSI**), out of 19,156 species of vascular plants, 1,236 species belong to different threatened categories like critically endangered, endangered and vulnerable.

Conservation:

Towards conservation of threatened species, the government has established **730 Protected Areas**, including 103 national parks, 535 wildlife sanctuaries, 26 community reserves and 66 conservation reserves, which primarily cover habitats of threatened megafauna such as tiger, rhino, elephant and others.

- Also, **nine of the 18 biosphere reserves in India** are part of the World Network of Biosphere Reserves of UNESCO.

▪ The National CAMPA Advisory Council has also approved the funding for recovery programme of various endangered species. These include Dugong with a budget of Rs 23.58 crore, Gangetic River Dolphin with Rs 23 crore, Great Indian Bustard with Rs 108.25 crore, Manipur Brow Antlered deer with budgetary support of Rs 99.95 crore and wild Buffalo with Rs 2 crore.

Sources: the hindu.

Kakrapur Nuclear mishap

India's atomic energy regulatory body, AERB, has classified recent nuclear reactor leak at the Kakrapur atomic power station (KAPS) as a **Level-1**, or the lowest in seven-rung classification scheme internationally used to rate the severity of nuclear mishaps.

Background:

A power generation unit at Kakrapar Atomic Power Station was recently shut down after leakage of heavy water. The power station is located in **Gujarat**. The power station has two units of Pressurized Heavy Water Reactors (PHWR).

How the leak was measured?

It was measured on the International Nuclear and Radiological Event (INES) scale. INES is developed by the International Atomic Energy Authority.

Various levels:

▪ Level 1 is treated as an anomaly in the plant.
▪ Levels 1-3 are termed 'incidents'.
▪ Levels 4-7 are termed as 'accident.'

By comparison, the nuclear accidents in Fukushima, Japan in 2011 and Chernobyl, Russia in 1986 were Level 7 incidents.

About AERB:

The Atomic Energy Regulatory Board (AERB) was constituted on November 15, 1983 by the President of India by exercising the powers conferred by Section 27 of the Atomic Energy Act, 1962 to carry out certain regulatory and safety functions under the Act.

- The regulatory authority of AERB is derived from the rules and notifications promulgated under the Atomic Energy Act, 1962 and the Environmental (Protection) Act, 1986.
- The headquarters is in Mumbai.

Fracking

Fracking /Hydraulic fracturing (also called as hydrofracturing or fraccing) is a well-stimulation technique in which rock is fractured by a hydraulically pressurized liquid.

How it operates?

- A high-pressure fluid (usually chemicals and sand suspended in water) is injected into a wellbore to create cracks in the deep-rock formations through which natural gas, petroleum, and brine will flow more freely.
- When the hydraulic pressure is removed from the well, small grains of hydraulic fracturing particles (either sand or aluminium oxide) hold the fractures open once the deep rock achieves geologic equilibrium. Some hydraulic fractures form naturally—certain veins or dikes are examples.

Where it is used?

The hydraulic fracturing technique is commonly applied to wells for shale gas, tight gas, tight oil, and coal seam gas.

India ranked 118th in UN's world happiness index; behind Pak, China

India has been placed at 118th position out of 156 countries in a global list of the happiest nations. This was revealed by The World Happiness Report 2016, published by the Sustainable Development Solutions Network (**SDSN**), a global initiative for the United Nations.

How Happiness is measured?

The report takes into account GDP per capita, life expectancy, social support and freedom to make life choices as indicators of happiness.

Highlights of the report:

- Denmark takes the top spot as the happiest country in the world, displacing Switzerland.

- Switzerland was ranked second on the list, followed by Iceland (3), Norway (4) and Finland (5).

- India ranked **118th**, down from 117th in 2015.

- India was among the group of 10 countries witnessing the largest happiness declines along with Venezuela, Saudi Arabia, Egypt, Yemen and Botswana.

- India comes below nations like Somalia (76), China (83), Pakistan (92), Iran (105), Palestinian Territories (108) and Bangladesh (110).

- The US is ranked 13th, coming behind Australia (9) and Israel (11).

- The report notes that Rwanda, Benin, Afghanistan, Togo, Syria and Burundi are the least happiest countries.

What's new in this report?

This report for the first time gives a special role to the **measurement and consequences of inequality** in the distribution of well-being among countries and regions.

- This reflects a new worldwide demand for more attention to happiness as a criteria for government policy and can also be used effectively to assess the progress of nations.

- Previous reports have argued that happiness provides a better indicator of human welfare than do income, poverty, education, health and good government measured separately but now experts also point out that the inequality of well-being provides a broader measure of inequality.

- People are happier living in societies where there is less inequality of happiness. They also find that happiness inequality has increased significantly (comparing 2012-2015 to 2005-2011) in most countries, in almost all global regions, and for the population of the world as a whole.

Sources: the hindu.

Tool to check solar plant parts

Solar Mango, a solar energy consulting firm, has come out with a web-based tool '**PV SAVVY**' to help people choose key components of the right quality required for solar power plants. In the absence of a mechanism to evaluate solar power system parts, PV SAVVY aims to provide a checklist of green practices and assist people in

selecting better quality components. PV SAVVY analyses certifications such as IEC that are necessary for good quality solar components.

India, France Sign MoU for 6 Nuke Reactors

India and France have signed an MoU for the construction of six nuclear reactors at Jaitapur in Maharashtra.

NCDs

As per the provisional data with SEBI, Indian firms have raised over Rs.58,000 crore through issuance of non-convertible debentures (NCDs) in the ongoing fiscal. This is much higher than last year. Most of the funds have been mobilized for expansion, to support working capital requirements and for other general corporate purposes.

What are NCDs?

The debentures *which can't be converted into shares or equities* are called non-convertible debentures (or NCDs).

- Non-convertible debentures are used as *tools to raise long-term funds* by companies through a public issue. To compensate for this drawback of non-convertibility, lenders are usually given a higher rate of return compared to convertible debentures.

- Besides, NCDs offer various other benefits to the owner such as high liquidity through stock market listing, tax exemptions at source and safety since they can be issued by companies which have a *good credit rating* as specified in the norms laid down by RBI for the issue of NCDs. In India, usually these have to be issued of a minimum maturity of 90 days.

What are debentures?

Debentures are *long-term financial instruments* which acknowledge a debt obligation towards the issuer.

Coal unit by BHEL

State-run power equipment maker BHEL recently commissioned a 500 MW coal-based unit at **Singareni Thermal Power Project in Adilabad District of Telangana**.

Fortune 50

Arvind Kejriwal has been placed at 42 in Fortune's list of top 50 world leaders. **Kejriwal is the only Indian in the list**. The list features men and women from across the globe from the fields of business, government, philanthropy and the arts who are "transforming the world and inspiring others to do the same."

Kisan Suvidha App

Kisaan Suvidha is a mobile app developed to help farmers by providing relevant information to them quickly.

- The app has a simple interface and provides information on five critical parameters—weather, input dealers, market price, plant protection and expert advisories.
- An additional tab directly connects the farmer with the Kisan call centre where technical graduates answer their queries.
- The app was developed by the agriculture ministry.
- To begin with, a farmer has to register the mobile number, choose a language—at present limited to Hindi and English—and enter details of the state, district and block or sub-district.
- There are various special buttons in the App including weather button, market price button and plant protection button.

President's rule in Uttarakhand

President's rule has been imposed in Uttarakhand and the state assembly is kept in suspended animation after President Pranab Mukherjee signed a proclamation under *Article 356* recently. Constitutional breakdown is cited as the reason for the proclamation of President's rule in the state.

Sand-eating tadpoles

Researchers have discovered a sand-eating tadpole that lives fully in total darkness until it fully develops into a young frog. The discovery was made in Western Ghats. These frogs belong to the **Indian Dancing Frog family**, **Micrixalidae**. They get

that name from their habit of waving their legs as a sign of territorial and sexual display while sitting on boulders in streams.

Key facts:

- The purple tadpoles were discovered from the deep recesses of streambeds in the Western Ghats and they possess muscular eel-like bodies and skin-covered eyes, which helps them to burrow through gravel beds.

- Though they lack teeth, they have serrated jaw sheaths, to possibly prevent large sand grains from entering the mouth while feeding and moving through sand.

- Unlike most tadpoles that swim early on, the Micrixalidae tadpoles hang onto underwater rocks with their powerful suckering mouths. When their arms grow strong enough they dig underground, where they live most of their lives, only to emerge in forest streams to reproduce.

- Other unusual features of the tadpoles were ribs and whitish globular sacs storing calcium carbonate, known as "**lime sacs**". Only four families of frogs are reported to have ribs, but the latest discovery shows that at least some of Micrixalidae also have ribs, even as tadpoles; this adaptation may provide for greater muscle attachment, helping them wriggle through sand.

Amazon's biggest campus outside the US

E-commerce giant Amazon has begun work on its biggest campus outside the US in Gachibowli, **Hyderabad**. The new state-of-the-art campus is expected to be ready by 2019 and will house thousands of employees managing back-end operations for Amazon's various global business and technology teams.

New Myanmar President

Myanmar has sworn in **Htin Kyaw**, a close aide of pro-democracy leader Aung San Suu Kyi, as the country's first civilian President in more than 50 years.

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from "The Hindu":

1. The Department of Science and Technology has decided to invest up to 1 crore in every fresh start-up that will seed from the next financial year. Previously, the maximum permissible investment was 50 lakh. The government has also decided to exempt start-ups from inspection from labour inspectors for up to three years if they give a self-declaration that they are complying with nine labour laws.

2. A recent survey by Karnataka Forest Department has revealed that the **Nagarahole Tiger Reserve has a density of 8.6 tigers per 100 sqkm**. The **national standard for a good density of the big cat is between 8 and 10 per 100 sqkm**. Survey results also indicate that the park has 93 tigers. The national tiger census, however, puts the number at 101. Forest officials say it's common to find such differences between tiger estimates. The Nagarahole Tiger Reserve, **officially known as the Rajiv Gandhi National Park**, covers an area of 643sqkm and is spread over Kodagu and Mysuru districts in Karnataka. It is home to one of the country's largest number of tigers.

3. Kerala has raised concerns over Tamil Nadu's move to construct a check-dam across the **Palar river** located in the **Parambikulam-Aliyar Project (PAP) basin**. According to Kerala, the proposed check-dam would violate the inter-State water sharing accord between the two States over the PAP basin. **As per the PAP accord, consent of both the States is mandatory for any construction activity in the basin**.

4. The Union Cabinet has given its approval for a **Memorandum of Understanding (MoU) between India and Bahrain on cooperation for prevention of human trafficking especially trafficking in women and children**; rescue, recovery, repatriation and re-integration of victims of trafficking.

5. An ancient Lord Shiva temple has been discovered in Gaur village on the banks of **Bori stream, a tributary of the Bhima** in Kalaburagi district in Karnataka.

6. Two stolen Indian statues that are more than 1,000 years old dating back to as early as the 8th Century were recently seized in the U.S. The **artefacts made from sandstone** were recovered from the auction house following an

international investigation with assistance from the Indian government and the Interpol. The artefacts are **a buff sandstone statue of Rishabhanata**, believed to be from Rajasthan or Madhya Pradesh belonging to the 10th Century A.D. It depicts the **first Jain Tirthankara**. The second artefact is a buff sandstone panel **depicting Revanta**, a rare representation of an equestrian deity and dates back to the 8th Century A.D.

7. The President of India, Shri Pranab Mukherjee recently inaugurated the **Sesquicentennial Celebrations of the High Court of Judicature at Allahabad**. Established on March 17, 1866, the High Court will turn 150 years on March 17, 2016.

8. The Railway Ministry has signed an agreement with the Indian Space Research Organisation (ISRO) to leverage space technology for providing passenger information in all trains, map railway assets and help survey new route alignments. The MoU aims at developing applications in the field of remote sensing and graphic information system, proposes to provide information such as train stoppages, real-time train tracking, survey of new rail route alignments in hilly and difficult terrain.

9. In a report prepared by experts on the initiative of the Tamil Progressive Alliance, Hill-country Tamils in Sri Lanka have suggested that the community be called "**Indian-Origin Malayaha Thamilar (IOMT)**." They do not want to be called "**Indian Tamils**" anymore. This nomenclature of theirs has been a source of political and administrative discrimination and social antipathy, besides carrying a historical baggage.

massive monster stars/ Bedaquiline/ Noor Inayat Khan prize

1. Astronomers working with data from the NASA/Hubble space telescope have identified nine **massive monster stars**, each of which is more than 100 times the mass of the sun. These massive stars are located in the **Tarantula Nebula**, within the Large **Magellanic Cloud**. This structure is 1,70,000 light years away.

2. The 'miracle drug' to battle multi-drug resistant tuberculosis (MDR-TB) and extensively-drug resistant TB (XDR-TB)-**Bedaquiline**– has been rolled out in six public hospitals across the country. It is perhaps the first drug ever that has the potential to dramatically improve MDR-TB treatment outcomes. The drug test is part of a co-ordinated programme between the government and Johnson & Johnson. The drug can be a game changer in the battle against the disease in India, the world's TB epicentre. India accounts for 23% of global cases and the most deaths – 220,000 in 2014.

3. Indian student, Geetakshi Arora, has won the **first Noor Inayat Khan prize for 2016**. Arora has won the prize — which consists of £1,000 and a certificate — for her dissertation on "**Goddess Myths in Graphic Novels: Reimagining Indian Feminity**." The award is given by London-based Noor Inayat Khan Memorial Trust. The Trust awards the annual prize to a post-graduate student from the School of Oriental and African Studies (SOAS), University of London, working in the area of gender studies and South Asian history.

Who was Noor Inayat Khan?

She is an Indian descent and was a **secret agent** in the Second World War, who was sent to Nazi-occupied Paris in 1943 from where she worked as a wireless operative sending intelligence reports to the Allies. Noor Inayat Khan's great-great-great-grandfather was **Tipu Sultan**, an 18th Century Muslim ruler of Mysore.

ICGS Arnvesh/ Boeing P 8I

1. The **fast patrol vessel (FPV)** of the Indian Coast Guard, **ICGS Arnvesh**, was recently commissioned. It is the 16th of the 20 in this category being built by the **Cochin Shipyard Limited (CSL)**.

2. The Indian navy has for the first time deployed the **Boeing P 8I,** one of its advanced maritime reconnaissance aircraft, to Seychelles for surveillance of the island nation's Exclusive Economic Zone. It is the first such deployment of the Boeing P 8I to a foreign country. **P 8I** is the **military version of Boeing 737-800**. India is one of the few countries, other than the US, that uses P 8I.

FDI in insurance sector/HAL Stamp

1. Seeking to attract more foreign investment, the government has relaxed FDI norms for the insurance sector by permitting overseas companies to buy **49% stake in domestic insurers without prior approval**. Currently, up to 26% FDI is permitted through the automatic approval route. For FDI up to 49%, the approval of the Foreign Investment Promotion Board is required.

2. India Post recently released a commemorative stamp on Hindustan Aeronautics Ltd., which recently completed 75 years. The tagline on the stamp says '**HAL: the force behind the Forces**'. This is also the first customised 'My Stamp' to be released by India Post. The special logo depicts **HAL's first indigenous aircraft programme from HT-2 to the Light Combat Aircraft** as also its capabilities related to helicopters.

DefExpo India / / DIMDEX / / 112 National Emergency Number

1. The **ninth edition of DefExpo India**, a **biennial exhibition of land, naval and internal homeland security systems**, being organised by the Defence Ministry, kicked off in Goa. More than 1,000 companies from 47 countries are participating in the event.

2. Indian **Naval ship Beas** is on an official visit to Doha, Qatar to participate in the **fifth edition of Doha International Maritime Defence Exhibition (DIMDEX)**. DIMDEX is held **biennially at Doha** and provides an ideal platform for showcasing our indigenous shipbuilding capability and technological prowess as well as innovation in Naval systems. INS Beas, an indigenous Brahmaputra Class frigate will represent the Indian Navy at DIMDEX 16.

3. India has decided to adopt '112' as the national emergency number, similar to '911' in the US and '999' in the UK, with the inter-ministerial telecom commission giving a go-ahead to the move. The roll-out of '112' may see a gradual phase-out of existing emergency numbers like 100 (for police), 101 (fire), 102 (ambulance) and 108 (disaster management), though they will continue to be in operation for at least a year. Telecom regulator Trai had suggested the adoption of 112 as the national emergency number in its recommendations submitted to the telecom department last year.

4. Gujarat has been named the **most film-friendly state** in the country for its effort to ease the shooting of films. This was announced at the recently concluded 63rd National Film Awards. The 'Most Film-Friendly State' award was introduced this year.

Solar Parks / P. Susheela Mohan / Sonerila nairii

▪ Renowned playback singer P. Susheela Mohan has been recognised by both the Guinness Book of World Records and Asia Book of Records for singing **most number of songs in Indian languages**. She has won many awards and earned accolades in a career spanning five decades. While Guinness Book of Records has officially credited her for singing 17, 695 songs (solo, duet and chorus backed songs) in twelve Indian languages, Asia Book of Records has recognised her for singing close to 17, 330 songs.

▪ The **U.S. Agency for International Development (USAID)** and the Asian Development Bank (**ADB**) have signed a memorandum of understanding (MoU) to provide $848 million of funding for the development of **solar parks across India.** The government has set a target of 175 Gigawatts of installed renewable energy capacity by 2022. Of this 100 GW is to come from solar power. The Ministry of New and Renewable Energy has said that it plans to set up 25 solar parks with a total capacity of 20,000 MW by 2020.

▪ Reliance Defence Ltd, a unit of Reliance Infrastructure Ltd (R-Infra), and Israel's Rafael Advanced Defence Systems Ltd have agreed to set up a joint venture (JV) in the specialized areas of **air-to-air missiles, air defence systems and large aerostats**. The project will have an initial capital outlay of more than Rs.1,300 crore, excluding the cost of technology. Based on current requirement, the JV will address multiple programmes in India valued at more than Rs.65,000 crore over the next 10 years. It is one of the biggest between an Indian firm with any original equipment manufacturer. Reliance Defence will own 51% in the joint venture and the rest will be held by Rafael.

▪ Researchers in Kerala have discovered the **new plant species** with botanical name **Sonerila nairii,**which comes under the family of Melasto mataceae. This rare plant species was discovered in the **Pottumala** region of

the **Nelliampathy forests** in the Western Ghats. The plant species is enlisted in the **critically endangered** category of the International Union for Conservation of Nature (**IUCN**). Each plant carries just two flowers. The plant grows in soil found in the gaps of rocks. The plant species is **lithophytic** and flowers during the October-November months in climatic regions with altitudes ranging above 1,200 metres above sea level.