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IAS Parliament

Contents

Sl.No.	Titles	Page No.
--------	--------	----------

PAPER - II

1.	INDIAN CONSTITUTION	7
1.1	PUSHED PATRIOTISM.....	7
1.2.	BAN ON LIQUOR VENDS ON HIGHWAYS.....	9
1.3	LAND OF RELIGIOUS BODY CAN BE ACQUIRED	10
1.4	SUPREME COURT JUDGMENT ON J&K.....	11
1.5	DISPUTE OVER PARTY SYMBOL	12
2.	GOVERNMENT POLICIES AND INTERVENTIONS	13
2.1	LIBERALIZING PASSPORT RULES	13
2.2	BAN ON NATIONAL ONLINE HIGHER EDUCATION	14
2.3	CENTRE TO ALLOW SWAPPING OF COAL.....	15
2.4	NGO - PUBLIC SERVANTS	16
3.	SOCIAL JUSTICE	17
3.1	THE RIGHTS OF PERSONS WITH DISABILITIES BILL.....	17
3.2	MANIPUR BLOCKADE	19
3.3	FOREST RIGHTS ACT - REPORT CARD	20
3.4	STATUS OF TRIBAL DEVELOPMENT	22
3.5	INTERNATIONAL GUIDELINES FOR TRIBAL COMMUNITIES.....	23
3.6	REFUGEE VS REFUGEE	24
3.7	MIGRATION IN INDIA.....	25
3.8	ECONOMIC MIGRANTS' CONTRIBUTION	26

Sl.No.	Titles	Page No.
3.9	SURVEY ON INTER-CASTE MARRIAGES AND UNTOUCHABILITY	27
3.10	GENDER SELECTIVENESS	29
3.11	SACHAR COMMITTEE REPORT.....	30
3.12	FINDING THE MISSING CHILDREN	31
4.	GOVERNANCE	33
4.1.	THE INDEPENDENCE OF INDEPENDENT DIRECTORS	33
5.	INDIA AND ITS NEIGHBOURHOOD	34
5.1	INDUS WATER TREATY AND WORLD BANK.....	34
5.2	INDIA AND CPEC	35
5.3	INDIA OFFERS TSUNAMI ALERT SYSTEM TO SCS COUNTRIES.....	37
5.4	ROHINGYA - BANGLADESH'S DILEMMA.....	38
6.	BILATERAL AND INTERNATIONAL RELATIONS	39
6.1	INDIA AND VIETNAM LIKELY TO SIGN CIVIL NUCLEAR PACT	39
6.2	IMPROVING DEFENCE COOPERATION	39
6.3	INDIA-JAPAN MINIMUM IMPORT PRICE ISSUE	40
6.4.	U.S & ISRAEL - UNSC VOTING.....	41
6.5	STATESMANSHIP ON PAYING HOMAGE	42
PAPER - III		
7.	INDIAN ECONOMY	44
7.1	ASIA-PACIFIC TRADE AND INVESTMENT REPORT 2016	44
7.2	RBI'S FINANCIAL STABILITY REPORT	45
7.3	LONG -TERM CAPITAL GAINS TAX.....	46
7.4	INDIAN ENTERPRISE DEVELOPMENT SERVICE.....	46
7.5	FINANCIAL DATA MANAGEMENT BILL, 2016	47

Sl.No.	Titles	Page No.
7.6	NATIONAL FINANCIAL REPORTING AUTHORITY.....	47
7.7	REGULATING THE DIGITAL PAYMENT SYSTEM	49
7.8	IMPERATIVES FOR JOB CREATION IN INDIA.....	50
7.9	LABOUR IN INFORMAL SECTOR	51
7.10	MSME POLICY	52
7.11	US FED RATE HIKE- IMPACT ON INDIA	52
7.12	RAISING REVENUE FROM LAND-BASED FINANCING.	53
7.13	GOVERNMENT MEASURES TO FIGHT UNEMPLOYMENT	54
7.14	REGULATING POWER SUBSIDIES	56
7.15	THE FOURTH INDUSTRIAL REVOLUTION	56
8.	AGRICULTURE AND RELATED ISSUES	58
8.1	INDIAN JUTE INDUSTRY.....	58
8.2	ANALYSIS OF CROP INSURANCE SCHEME - PMFBY	58
8.3	DIGITIZATION OF AGRICULTURE	59
8.4	OVER-FORTIFICATION OF FOOD	61
8.5	PROBLEMS OVER ROYALTY	62
9.	SCIENCE AND TECHNOLOGY	63
9.1	HURDLES FOR BHARATNET	63
9.2	AGNI - 5.....	63
9.3	AUTOMATED CONTROL SYSTEMS IN KUDANKULAM	65
9.4	PRIVACY DEBATE IN INTERNET OF THINGS.....	65
10.	ENVIRONMENT	67
10.1	CIRCULAR ECONOMY	67
10.2	HUMAN ANIMAL CONFLICT – ELEPHANTS & RAILWAY TRACKS	68

Sl.No.	Titles	Page No.
11.	INTERNAL SECURITY	69
	11.1 ROLE OF SOCIAL MEDIA	69
	11.2 GOOD POLICING	71
	11.3 MATHEMATICAL MODELS TO FIGHT TERROR	71
	11.4 TERRORIST ATTACKS IN EUROPE	72

PRELIM BITS CONSOLIDATION

12.	HISTORY	74
13.	ART AND CULTURE	74
14.	GEOGRAPHY	75
15.	SOCIAL ISSUES	77
16.	GOVERNMENT SCHEMES AND POLICIES	77
17.	GOVERNMENT'S NEW INITIATIVES TO PUSH DIGITAL PAYMENTS	79
18.	INTERNATIONAL INSTITUTIONS IN NEWS	79
19.	NATIONAL INSTITUTIONS IN NEWS	80
20.	NATIONAL AND INTERNATIONAL MISSIONS AND EXERCISES	81
21.	ECONOMY	82
22.	ENVIRONMENT	83
23.	SCIENCE AND TECHNOLOGY	85
24.	SCIENCE	89
25.	INDEX AND REPORTS	90



PAPER - II

1. INDIAN CONSTITUTION

1.1 Pushed Patriotism

Why in news?

- The Supreme Court ordered all cinema halls across the country should play the national anthem and that those present “must stand up in respect”

What was the case about?

- The order came on a writ petition by Shyam Narayan Chouksey in October.
- The petition, which referred to the Prevention of Insults to National Honour Act of 1971, claimed that the “national anthem is sung in various circumstances which are not permissible.”
- It also referred to Article 51 (A) of the Indian Constitution to contend that it was the duty of every person to show respect when the anthem was played.
- However, the petition had not asked the court to direct the anthem to be played in movie halls. Instead, it had focused on the commercial exploitation of the anthem.
- However the court ordered cinema halls to mandatorily play the national anthem before every screening even as all those present have to “stand up to show respect.”
- Cinemas should also display the national flag on screen when the anthem is played.
- All doors in a cinema hall should remain closed to prevent any kind of disturbance when the anthem is played.
- The court banned the commercial exploitation of the national anthem and ordered there

should not be dramatisation of the anthem or its inclusion as part of any “variety show”.

- The court ordered that the anthem or part of it should not be printed or displayed in places “disgraceful” to its status. It also banned the display, recitation or use of the abridged version of the anthem.
- This was an interim measure and no justification was given by court.

What was the court’s rationale behind the order?

- The Bench said the protocol of showing respect to the anthem and flag was rooted in “our national identity, national integrity and constitutional patriotism.”
- It also said that the playing of the anthem is to be seen as an opportunity for the public to express their “love for the motherland.”
- The practice, according to the court, will “instil a feeling of committed patriotism and nationalism.”
- Justice Misra observed in the order that “a time has come, the citizens of the country must realise that they live in a nation and are duty bound to show respect to the national anthem, which is a symbol of the constitutional patriotism and inherent national quality”.
- He also said in court, “It is time people feel this is my country. This is my motherland... You are an Indian first. In other countries, you respect their restrictions. In India, you do not want any restrictions?”
- The Bench said there was no space for the “perception of individual rights” in this issue.

Why this judgment is irrational?

1. Against Fundamental rights

What was the *Bijoe Emmanuel vs State Of Kerala* case about?

- The three child-appellants, Bijoe, BinuMol and Bindu Emmanuel, are the faithful of Jehovah's Witnesses. Daily during the morning assembly in their school when the National Anthem is sung, they stand respectfully but they do not sing. They do not sing because, according to them, it is against the tenets of their religious faith — not the words or the thoughts of the Anthem but the singing of it.
- The MLA thought it was unpatriotic of the children not to sing the National Anthem. So, he put a question in the Assembly and a Commission was appointed.
- The Commission reported that the children are 'law-abiding' and that they showed no disrespect to the National Anthem.
- But the Head Mistress expelled the children from the school from July 26, 1985. Finally the children filed a Writ Petition in the High Court seeking relief but their plea was rejected.

SC's view on High Court's order

- There is no provisions of law which obliges anyone to sing the National Anthem nor do we think that it is disrespectful to the National Anthem if a person who stands up respectfully when the National Anthem is sung does not join the singing.
- It is true Art. 51-A(a) of the Constitution enjoins a duty on every citizen of India "to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem".
- Proper respect is shown to the National Anthem by standing up when the National

Anthem is sung. It will not be right to say that disrespect is shown by not joining in the singing.

- Article 25 is an article of faith in the Constitution, incorporated in recognition of the principle that the real test of a true democracy is the ability of even an insignificant minority to find its identity under the country's Constitution.

SC's view on the question of tolerance

- The Court was satisfied that the expulsion of the three children from the school is a violation of their Fundamental Right to freedom of conscience and freely to profess, practise and propagate religion.
- "We, therefore, find that the Fundamental Rights of the appellants under Art. 19(1)(a) and 25(1) have been infringed and they are entitled to be protected. We allow the appeal, set aside the judgment of the High Court and direct the respondent authorities to readmit the children into the school... We only wish to add: our tradition teaches tolerance; our philosophy preaches tolerance; our constitution practises tolerance; let us not dilute it."

2. Against Safety

What was the *Uphaar* case judgment?

- 57 people died in a stampede after they were locked inside the Uphaar theatre hall and fire broke out.
- The SC in its judgment said that while the theatres were entitled to regulate entry and exit, under no circumstances should doors, which also double up as emergency exits be bolted or locked.
- Rule 10 (8) of the Delhi Cinematographic Rules mandates that all exit doors for public to the open air shall be available for exit during the whole time the public is in the building and shall not be locked or bolted.

- Therefore the order that “all doors in a cinema hall should remain closed to prevent any kind of disturbance” is against the safety of the public inside the halls.

3. Absurdity

- On the one hand the court banned the commercial exploitation of the national anthem and ordered there should not be dramatisation of the anthem or its inclusion as part of any “variety show” and on the other it does the same by making it mandatory to play it in theatres.

4. Ineffectiveness

- The enforced patriotism is simply transforming a private emotion into tokenistic public spectacle. One stand up not necessarily because you want to, but because if don't, they're likely to be labelled a traitor, or worse, screamed at or assaulted by self-styled nationalists.

What is the way ahead?

- It seems impossible for so many people to express patriotism in a non-aggressive manner.
- There are many ways to prove our love for our country.
- One could contribute to flood relief or volunteer in a tsunami-stricken area or ensure the domestic help has enough cash till she gets used to plastic money — all of this is a form of loving, caring for, respecting the nation.
- Because a nation is its people. When we love Indians, we love India.

1.2 Ban on Liquor Vends on Highways

Why in news?

- The Supreme Court banned States and Union Territories from granting licences for the sale of liquor along National and State highways across the country.

What was the order?

- The Bench said the licences of liquor shops across the highways will not be renewed after March 31, 2017.
- The judgment ordered that the prohibition on sale of liquor alongside highways would extend to stretches of such highways that fall within limits of municipal corporations, city towns and local authorities.
- The court prohibited signages and advertising of availability of liquor on highways and ordered the existing ones to be removed forthwith from both national and State highways. It noted that the highway should be absolutely free from any distraction or attractions.
- It also ordered that no shop for sale of liquor should be visible from the National and State highways and noted that the visibility is the first temptation.
- Neither should they be directly accessible from the highways nor should they be situated within a distance of 500 metres from the outer edge of the highways or service lanes.
- It gave the Chief Secretaries and the State police chiefs a month's time to chalk out a plan for enforcement of the judgment.
- One of the pleas noted that, India being a signatory to the **Brasilia Declaration on Road Safety**, it is imperative that policy guidelines are framed to control road accidents. Also, the excise policies of Indian states and Union territories should be amended to conform to the spirit of Article 47 & Article 21 of the Constitution of India.

What was the court's rationale?

- SC noted that drunken driving was the main culprit behind a large number of road accidents in the country.

- The judgment is a result of the deep concern the court had expressed recently on the 1.5 lakh fatalities annually in road accidents and about 15,000-16,000 deaths were caused because of driving under the influence of alcohol. It had blamed the Centre and the States for not doing enough as lives were lost on the roads.
- The court said revenue generation could not be a “valid reason” for a state or a Union Territory to give licence for liquor shops on highways.
- Though many hailed the decision aimed at saving human lives, others argued that even if liquor is not available along National Highways, one can always buy it beforehand. Those who are fond of drinking will not stop because of this.

What was the government’s reaction?

- Liquor vends in Haryana were shifted from National and State Highways in 2014 following the orders of the Punjab and Haryana High Court.
- The Telangana government expected a huge impact on the business of retail outlets selling Indian Made Foreign Liquor (IMFL) and bars along highways in the wake of the order.
- The Kerala government will comply with the Supreme Court order to shut down liquor shops abutting national and State highways though it was not sure whether the order applied to bar hotels, wine and beer parlours, and toddy outlets.

1.3 Land of religious body can be acquired

Why in news?

- The Allahabad High Court has ruled that a land belonging to a religious body can be acquired for a “public purpose”.

What were the rights violated?

- Church of North India Association challenged a notification by which four plots of land were acquired in Firozabad district for construction of a by-pass connecting Agra with Etawah.
- The petitioner had also argued that the acquisition of the land violated the Place of Worship (Special Provisions) Act which “safeguards all religious properties”.
- The court dismissed the plea.
- The Court’s order violated the “right to freedom of religion” and the “freedom to manage religious affairs” guaranteed under Articles 25 and 26 of the Constitution.
- Though right to property is no longer a fundamental right for a citizen, Article 26 confers right to every religious denomination “to own and acquire movable and immovable property”.

What was the court’s rationale?

- It stated that “Once there is public purpose for which land in question has been acquired, invoking provision of the National Highways Act, 1956, then no relief can be accorded to the petitioner.”
- However the court said that in view of Christmas festivities, the structures should not be demolished for the period of one month but thereafter the aggrieved party and the NHAI should “work out modality” for “demolition or shifting” of the same.
- The court said that the Place of Worship (Special Provisions) Act only “bars any person from converting any place of worship of any religious denomination or different religious denomination” and that the “provision had been introduced to see that communal harmony is not disturbed and persons of one religious community may not take on the other”.

1.4 Supreme Court Judgment on J&K

Why in news?

- The Supreme Court has held that Jammu and Kashmir has “no vestige” of sovereignty outside the Indian Constitution and its own, while the citizens of the state are “first and foremost” citizens of India.

What was the case about?

- SARFAESI is an enactment which entitles banks to enforce their security interest outside the court process to take possession of secured assets of the borrower and sell them outside the court process.
- The apex court judgement came on the appeal by State Bank of India (SBI) against the high court verdict which had held that the SARFAESI Act would collide with the Transfer of Property Act of Jammu & Kashmir, 1920.
- The apex court observed that the conclusion arrived at by Jammu and Kashmir High Court which had held that the state has “absolute sovereign power” to legislate laws touching the rights of its permanent residents regarding their immovable properties is “wholly incorrect”.
- The bench set aside the verdict of Jammu and Kashmir High Court that had held that any law made by Parliament, which affects the laws made by state legislature, cannot be extended to Jammu and Kashmir.

What was SC’s rationale?

- The bench observed that the State of Jammu & Kashmir has no vestige of sovereignty outside the Constitution of India and its own Constitution, which is subordinate to the Constitution of India.
- “It is therefore wholly incorrect to describe it as being sovereign in the sense of its

residents constituting a separate and distinct class in themselves. The residents of Jammu & Kashmir, we need to remind the High Court, are first and foremost citizens of India,” it said.

- The apex court said this while holding that provisions of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act) are within the legislative competence of Parliament and can be enforced in Jammu and Kashmir.
- “Entries 45 and 95 of List I provides Parliament with exclusive power to make laws with respect to banking... the Act as a whole would necessarily operate in the state,” the bench said, adding that the SARFAESI Act had itself made a special provision for sale of properties in J&K.
- The bench, however, made it clear that any provision of the J&K Transfer of Property Act will have to give way to the central law in case the former is found repugnant.
- “The High Court judgment begins from the wrong end and therefore reaches the wrong conclusion. It states that in terms of Section 5 of the Constitution of Jammu & Kashmir, the State has absolute sovereign power to legislate in respect of laws touching the rights of its permanent residents qua their immovable properties,” the apex court said.
- It further said, “We may also add that permanent residents of Jammu & Kashmir are citizens of India, and there is no dual citizenship as is contemplated by some other federal Constitutions in other parts of the world”.
- It also added that its judgement had no effect on Article 35A, which confers on permanent residents of J&K special rights and privileges regarding acquisition of immovable property in the state.

What is Article 35A?

- The Constitution (Application to Jammu and Kashmir) Order, 1954 was issued saying, that in exercise of the powers conferred by clause (1) of Article 370 of the Constitution, the President, with the concurrence of the Government of the State of Jammu and Kashmir, is pleased to order. (j) After article 35, the following new article shall be added, namely 35A.
- 35 A - Saving of laws with respect to permanent residents and their rights.— Notwithstanding anything contained in this Constitution, no existing law in force in the State of Jammu and Kashmir, and no law hereafter enacted by the Legislature of the State: (a) defining the classes of persons who are, or shall be, permanent residents of the State of Jammu and Kashmir; or (b) conferring on such permanent residents any special rights and privileges or imposing upon other persons any restrictions as respects:-
 - (a) Employment under the State Government;
 - (b) Acquisition of immovable property in the State;
 - (c) Settlement in the State; or
 - (d) Right to scholarships and such other forms of aid as the State Government may provide, shall be void on the ground that it is inconsistent with or takes away or abridges any rights conferred on the other citizens of India by any provision of this Part.

1.5 Dispute over Party Symbol

Why in news?

- A day after Mulayam Singh was deposed as party president by his son Akhilesh Yadav, he approached the Election Commission of India to stake claim to the 'cycle' symbol.

What are the EC's powers in such disputes?

- On the question of a split in a political party outside the legislature, the Symbols Order, 1968, states that the EC is empowered to take decision after considering all the available facts and circumstances of the case that one rival section or group or none of such rival sections or groups is that recognised political party.
- The decision of the Commission shall be binding on all such rival sections/groups.
- This applies to disputes in recognised national and state parties.
- For splits in registered but unrecognised parties, the EC usually advises the warring factions to resolve their differences internally or to approach the court.

How does the EC decide?

- In almost all disputes decided by the EC so far, a clear majority of party delegates/office bearers, MPs and MLAs have supported one of the factions. The EC allocated the symbol to the group that secured this majority.
- Whenever the EC could not test the strength of rival groups based on support within the party organisation, it relied on testing majority only among elected MPs and MLAs.
- Only in the case of the split in the AIADMK in 1987, which happened after the death of M G Ramachandran, the EC was faced with a peculiar situation.
- The group led by MGR's wife Janaki had the support of the majority of MPs and MLAs, while J.Jayalalithaa was supported by a substantial majority in the party organisation.
- But before the EC was forced to make a decision on which group should retain the party symbol, a compromise was reached.

- The EC do not recognise the new groups/ parties (that did not win the party symbol) as either state or national parties. It is of the view that merely having MPs and MLAs is not enough, as the elected representatives had fought and won polls on tickets of their parent (undivided) parties.
- The rule introduced in 1997 states that the splinter group of the party — other than the group that got the party symbol — had to register itself as separate party, and could lay claim to national or state party status only on the basis of its performance in state or central elections after registration.
- **Orphans** - Orphans, who do not have any birth certificate, can get the head of the orphanage where they were raised to confirm their date of birth on an official letterhead, which will be accepted by the government for issuing passports.
- **Sadhus** - Holy men can now apply for a passport with the name of their spiritual guru, instead of biological parents.
- However, they would have to provide a document such as voter ID, which records the name of the guru against the column for parent's name.

2. GOVERNMENT POLICIES AND INTERVENTIONS

2.1 Liberalizing Passport Rules

Why in news?

- The government recently announced a series of changes in obtaining passports.

What are the steps taken by the government?

- A three-member committee was formed by the Ministry of External Affairs and the Ministry of Women and Child Development that gave the recommendations.
- **Divorced Persons/Single Parent** - The passport application form does not require the applicant to provide the name of her/his spouse in case of separated or divorced persons.
- A single parent will not have to disclose the name of his or her partner; the passport need only have the name of one of the parents or the legal guardian.
- **Married applicants** - The new rules allow faster processing for married applicants as they can apply without attaching marriage certificate.

- **Government Employees** - Government employees, who are not able to obtain the Identity Certificate or No-Objection Certificate from their employer and need to get passports on an urgent basis can now get them by submitting a self-declaration that they had provided prior intimation letter to their employers about applying for an ordinary passport.

What are the implications?

- The move will speed up and simplify the passport delivery process.
- The new rules will eliminate the role of non-government agents and touts.
- India aspires to be on a par with countries with a highly liberalised process.

What are the other reforms?

- For adopted children within India, submission of registered adoption deeds would no longer be required.
- Various annexures required to be submitted by applicants would now be in the form of self-declarations on plain paper.
- No attestation/swearing by/before any notary/executive magistrate/first class judicial magistrate would be necessary.

- In another significant change, the government has also eased the requirement of date of birth certificates for those born after October 26, 1989.

What has been reformed in proof documents?

- A key reform is that a birth certificate is no more the main proof of date of birth, and other official documents, including Aadhaar number and PAN card, which contain the date, can be utilised.
- In the case of orphaned children, actual proof for date of birth has been dispensed with and a declaration from the head of a child care home or orphanage confirming the date is enough.
- In keeping with the times, adopted and surrogate children can be issued passports even in the absence of the relevant documents, based on a declaration on plain paper.
- Sadhus and sanyasins have been allowed to mention their gurus in lieu of the names of their parents.
- Ultimately, a passport ought to be every citizen's right. Simplifying the procedures in obtaining one should be an ongoing exercise.

2.2 Ban on National Online Higher Education

Why in news?

- India's higher education regulators banned Indian universities from launching national online campuses.

Why is the ban unjust?

- The ban is unjust because while Indian universities are prohibited from offering online degrees via online campuses, the world of internet makes it possible for MOOCs (Massive Open Online Courses) such as Coursera, Edx and Udacity, besides many

traditional US and European universities, to sign up Indian students online.

- Online learning is obviously behind the physical classroom in terms of student experience and learning outcomes but is rapidly catching up.
- **Level Playing Field** - Indian universities are not asking for protection against foreign universities but the current ban must be lifted to create a level playing field. The longer Indian universities are prohibited from developing online capabilities, the further they fall behind global players.
- **Need to increase employability** - The classification of higher education requires the vocationalisation of higher education. Allowing Indian universities to launch national online campuses will see universities creating programmes that combine certificate and diploma programmes with apprenticeships and higher education to create new life forms that substantially attack the problem of graduate employability.
- **Dynamic conditions** - The ban assumes to know what is possible, what people need, and what people want. College isn't what it used to be; the world has produced more graduates in the last 35 years than the 800 years before that. Consequently, 60% of taxi drivers in Korea, 31 per cent of retail sales clerks in the US and 15 per cent of high-end security guards in India now have a degree. Education, skills and the wage premium are changing so rapidly that the current higher education regulator model is no longer be acceptable.
- **Higher education** is over-regulated and under-supervised. Making a distinction between distance education and online education is meaningless and out-dated.
- **Coverage** - These reasons to lift the ban are amplified by the scale of India's demographic dividend where one million kids joining

the labour force every month. India has 20 million kids in physical college classrooms, 5 million kids in distance education and 0.3 million kids in apprenticeship classrooms. While the expansion of physical classrooms must continue, Indian higher education faces the impossible trinity of cost, quality and scale while simultaneously facing a huge speed limit arising from the lack of quality faculty.

- Recent amendments to the Apprenticeship Act have set things up for a massive expansion but this could be greatly accelerated if we could marry the low-cost, 24X7 and anywhere-availability features of online higher education with the learning-while-earning and learning-by-doing of apprenticeships.
- Education needs to reinvent itself because the world of work is changing rapidly and institutions are no longer permanent. Rote learning is less important in a world of always-on-internet, and progress in understanding the brain has led to important second-order effects for education.
- Automation era - Rapid progress in automation means that the most important vocational skills for the future will be reading, writing, arithmetic and soft skills. Removing the ban on national online higher education will create an explosion of innovation in linking skills to degrees.

2.3 Centre to allow Swapping of Coal

Why in news?

- Power Minister has announced schemes to raise liquidity and enable swapping of coal.

What are the measures?

- Raising Liquidity - Power minister Piyush Goyal said that the ministry was looking at making regulatory changes to

enable public sector entity Power Grid to divert some of its operational assets and use the liquidity for future projects.

- Currently, Power Grid has accumulated gross fixed assets worth Rs 1.5 lakh crore. The company has been investing over Rs 20,000 crore as capital expenditure each year in the last few years and is expected to spend Rs 25,000 crore in the current fiscal.
- Government officials, however, said that the proposal for hiving off Power Grid assets was still at a conceptual stage and any further development would require an extensive study of various options.
- **Coal Swapping** - In May, the government had allowed coal swapping among central and state-owned power plants to bring in operational efficiency.
- Now it also announced that the government would allow swapping of coal among government and private firms.

What is Coal Mitra Portal?

- To facilitate the coal swapping, Goyal launched 'Coal Mitra' web portal, which would indicate the most efficient way of utilising coal from by an end-user.
- The Portal has been designed to bring about flexibility in Utilization of Domestic Coal by transferring the reserves to more cost efficient State/Centre owned or Private sector generating stations, leading to lower generation costs and ultimately lesser cost of electricity for the consumers
- The portal would be used by the state and central generation companies to display information about normative fixed and variable charges of electricity for the previous month as well as margin available for additional generation to enable the utilities in identifying stations for transfer of coal.

- It would host data on operational and financial parameters of each coal based station; quantity and source of supply coal to the power plant; and distance of power plant from the coal mine.
- All entities receiving donations from foreign source in the context of the Foreign Contribution Regulation Act (FCRA) in excess of Rs 10 lakh per year are brought under the jurisdiction of Lokpal

2.4 NGO - Public Servants

What is the issue?

- There are several ambiguities in the Lokpal and Lokayuktas Act, 2013 (L&L Act), which in current form, strongly discourages the participation of citizens in social and humanitarian activities.

What are the provisions of L&L Act?

- Lokpal at the Centre and Lokayukta at the level of the states.
- Lokpal will consist of a chairperson and a maximum of eight members, of which 50% shall be judicial members.
- 50% of members of Lokpal shall be from SC/ST/OBCs, minorities and women.
- The selection of chairperson and members of Lokpal shall be through a selection committee consisting of
 1. PM,
 2. Speaker of Lok Sabha,
 3. Leader of Opposition in the Lok Sabha
 4. Chief Justice of India or a sitting Supreme Court judge nominated by CJI,
 5. Eminent jurist to be nominated by the President on the basis of recommendations of the first four members of the selection committee.
- Prime Minister has been brought under the purview of the Lokpal.
- Lokpal's jurisdiction will cover all categories of public servants.

What was the amendment?

- Going by this definition, public servants should furnish particulars of their assets and liabilities as well as those of their spouses and dependent children to the authorities.
 - Non-compliance is liable for action against him/her under the Prevention of Corruption Act 1988.
 - Centre moved an amendment to address concerns arising from the mandatory declaration of assets and liabilities under the Lok Pal and Lokayukta Act, 2013.
 - While the amended Act continues to hold it is compulsory for public servants to file their returns, the form and procedure for doing so is left open with "as may be prescribed".
 - In doing so, it does away with sub-sections of Section 44 of the Act, which required public servants to disclose the assets of their spouse and dependent children. It also dispenses with the requirement such disclosure be made publicly available on websites, as laid down by Section 44 (6).
 - While this means that employees of NGOs will not have to file returns this year, NGO employees will still have to declare their assets if the Centre decides to lay down when and how this should be done.
 - In other words, NGOs and their employees will still remain public servants under the Lokpal Act.
- ### Why NGOs are opposing the move?
- Unfortunately, the Indian NGO sector has brought it upon itself. Instead of challenging the categorisation of NGO workers as 'public

servants', they chose to raise the issue of asset declaration of spouses and children.

- Government employees - The government has used this opening to set the clock back on transparency i.e under the amended law, no distinction is made between Central government employees and those of NGOs.
- As a result, Central government employees will also no longer need to file returns on assets and liabilities for now.
- Privacy - The unease among NGOs led some members to resign from their posts. Partly, this arose from a sense that their privacy was being violated by the demand that their assets had to be made public.
- In many cases, trustees and members of the governing body have nothing to do with the day-to-day operations of a non-profit. They are professionals chosen for their expertise in certain areas. Therefore it is not right to label them as public servants.
- Against Principle - NGOs are essentially private organisations working for public good.
- Discourage volunteers - The other concern was that a great proportion of social work is carried out by volunteers. NGOs fear this could discourage people from getting involved in social causes.
- Finally, the Opposition stemmed from a suspicion that the notifications had less to do with tackling corruption than harassing civil society organisations that question the government's decisions.
- Impracticality - India has around 6 million NGOs. Even if we assume that only 50 percent, or 3 million, are government-funded, and if we take an average of four board members and 4 staffers per NGO, that leaves us with 24 million public servants for Lokpal to monitor. Its impractical for Lokpal to manage it.

- Financial irregularities by institutions and individuals are covered through several other pieces of legislation such as the IPC, the Prevention of Corruption Act, the Foreign Currency Regulation Act, the Companies Act, ITax Act and so on

Why the move is desirable?

- But not everyone agrees that employees of NGOs that receive government funding should be treated differently from government employees.
- An NGO gets tax breaks under Section 12-A of the IT Act, when it gets registered. When it gets funding from the Government, it is public money. Therefore, it stands to reason that the assets of all involved should be disclosed and that includes those of spouses and dependents.
- There is also no significant evidence of privacy being violated in the case of disclosures.

3. SOCIAL JUSTICE

3.1 The Rights of Persons with Disabilities Bill

Why in news?

- The Rights of Persons with Disabilities Bill 2014, introduced in Lok Sabha in 2014, was passed in the Rajya Sabha on Wednesday.
- What is the Disability Bill, 2014 about?
- The draft legislation is based on the 2010 report SudhaKaul Committee, and will replace the Persons with Disabilities Act, 1995.
- The Bill is being brought to comply with the UN Convention on Rights of Persons with Disabilities, to which India became a signatory in 2007.
- The 1995 Act recognised 7 disabilities - blindness, low vision, leprosy-cured, hearing

impairment, locomotor disability, mental retardation and mental illness.

- The 2014 Bill expanded the definition of disability to cover 19 conditions, including cerebral palsy, haemophilia, multiple sclerosis, autism and thalassaemia among others.
- The Bill also allowed the central government to notify any other condition as a disability.
- Persons with at least 40% of a disability are entitled to certain benefits such as reservations in education and employment, preference in government schemes, etc.
- The Bill confers several rights and entitlements to disabled persons. These include disabled friendly access to all public buildings, hospitals, modes of transport, polling stations, etc.
- In case of mentally ill persons, district courts may award two types of guardianship. A limited guardian takes decisions jointly with the mentally ill person. A plenary guardian takes decisions on behalf of the mentally ill person, without consulting him.
- Violation of any provision of the Act is punishable with imprisonment up to six months, and/or fine of Rs 10,000. Subsequent violations carry a higher penalty and longer imprisonment.

What are the changes made to the 2014 Bill?

- The government brought 119 amendments to the Bill, and this legislation has been pending in the House since February 2014.
- **Additional Categories** - The amended version recognises two other disabilities i.e. resulting from acid attacks and Parkinson's Disease, taking the number of recognised conditions to 21, and defines each one of them.

➤ It makes a special mention of the needs of women and children with disabilities, and lays down specific provisions on the guardianship of mentally ill persons.

➤ **Establishment definition** - The amendments include private firms in the definition of 'establishments', which previously referred to only government bodies. All such establishments have to ensure that persons with disabilities are provided with barrier-free access in buildings, transport systems and all kinds of public infrastructure, and are not discriminated against in matters of employment.

➤ **Reservation** - The 1995 law had 3% reservation for the disabled in higher education institutions and government jobs. The 2014 Bill raised the ceiling to 5%. But the amendments cut the quota to 4%.

➤ **Imprisonment** - It removed the jail term entirely, and only keep fines for breaking the law or discriminating against persons with disabilities.

➤ **Reasonable Restriction**- The proposed amended law defines discrimination as "any distinction, exclusion, restriction on the basis of disability" which impairs or nullifies the exercise on an equal basis of rights in the "political, social, cultural, civil or any other field". However, it excuses such discrimination if "it is shown that the impugned act or omission is a proportionate means of achieving legitimate aim".

What are the issues?

- **Larger coverage** - The 2011 Census put the number of disabled in India at 2.68 crore, or 2.21% of the population. This is a gross underestimation, especially in the light of the proposed amendments, which greatly widen the current Census definition of disability.
- The Bill makes a larger number of people eligible for rights and entitlements by reason

of their disability, and for welfare schemes and reservations in government jobs and education.

- The amendments also dilute safeguards provided in the originally proposed Bill. When a greater number of disabilities are being brought under the purview of the Act, the percentage of reservation should go up proportionately, instead it has been reduced.
- **Chief Commissioner** - The amendments do away with the provision in the 2014 Bill for strong National and State Commissions for Persons with Disabilities, with powers on a par with a civil court. They instead continue with the status quo of having only a Chief Commissioner with far fewer powers.
- The chief commissioner has only recommending powers and there is no provision to ensure he or she too is a disabled person. Every commission — minorities, women, SCs or STs — has a chairperson from the same category.
- **Exception Clause** - The exception clause to the discrimination is justified that certain jobs cannot be carried out by people with disabilities. e.g A blind person cannot be employed in the military. However, every job has certain basic requirements, and no person with disability will apply for it unless he or she meets the criteria. Therefore this provision is unnecessary and paves way for extreme interpretations.
- The bill fails to specify the degree of disability for thalassaemia, learning disabilities or autism. Moreover, in India there are no suitable tools to quantify autism or learning disabilities.
- **State Subject** - Though it has the legal space under Article 253 to make a law to implement an international treaty, the question is whether it is appropriate for Parliament to impose legal and financial obligations on states and municipalities with regard to disability, which is a State List subject.
- The Financial Memorandum does not provide any estimate of the financial resources required to meet obligations under the Bill.
- In “extraordinary situations” district courts may appoint plenary guardians for mentally ill persons. The Bill does not lay down principles for such determination, in a consistent manner, across various courts.

3.2 Manipur Blockade

Why in news?

- Manipur has been experiencing severe hardship in supply of essential items since November 1 after the United Naga Council (UNC) imposed an indefinite economic blockade on the two national highways that serve as lifelines for the State.

What is the issue?

- The Manipur Cabinet on December 9 decided to form seven new districts, bifurcating the existing nine. Four new districts have been formally inaugurated.
- The United Naga Council (UNC) has been agitating against the government decision to create Sadar Hills and Jiribam into full-fledged districts, claiming it would bifurcate ancestral lands of the Nagas in Manipur.
- Tension escalated after militants ambushed the Manipur police and other State forces that left three policemen dead and 14 others injured on December 15 and violence had been on the rise since then.
- Inter-community tensions are also been boiling since the decision December 9 decision.
- The UNC has deemed the government’s move to upgrade Sadar Hills and Jiribam to full-fledged districts an attempt to take “traditional Naga land and to divide the Naga people” and imposed an economic blockade from November 2 onwards.

What is the government's justification?

- The government's justification for the formation of the new districts is both a response to longstanding demands of local people and administrative convenience.

What else is causing the unrest?

- The resentment against the new administrative units is just the latest in a series of issues that have caused strife.
- The demand that the Inner Line Permit (ILP) be implemented in Manipur has gained traction over the last few years
- The ILP is a special pass or permit that is required to enter the Northeastern states of Arunachal Pradesh, Nagaland and Mizoram. The system was introduced by the British to protect their commercial interests, particularly in oil and tea, and continues now essentially as a mechanism to firewall the tribal peoples and their cultures from onslaughts by outsiders.
- It has been demanded now, amid fears that increasing tourism and migration would alter the demographic profile of the state.
- Following the demand, the Regulation of Visitors, Tenants and Migrant Workers' Bill was introduced in 2016.
- The Bill proposed to set up visitor registration centres in the state. Owners of "transit units" like hotels were to register and submit details of visitors along with identity documents to the government. Contractors hiring labour from outside Manipur were to follow similar rules, and the government was to issue permits to migrant workers.
- The Bill fulfilled a longstanding demand from powerful groups in the state, but failed to satisfy the hardliners who wanted nothing short of the ILP.
- Subsequently the bill was withdrawn after violent protests.

- Three other laws passed by the state assembly in 2015 — the Protection of Manipur People Bill, the Manipur Land Revenue and Land Reforms Bill (Seventh Amendment) and the Manipur Shops and Establishments (Second Amendment) Bill — ostensibly as a response to demands from the state's tribal communities, were also met with protests.
- The laws were seen as an attempt to encroach on tribal lands and rights. It is against this backdrop that the redrawing of district boundaries has taken on the colour of a Native versus Other conflict.

What should be done?

- The government did not make the process or the decision on the new administrative divisions a consultative one.
- The Hill Area Committees are formed to protect the rights of hill people, and under Article 371(C) of Constitution, must be consulted on matters relating to tribal people. But they have claimed they were never consulted.
- The redrawing of boundaries is a sensitive issue in the complex social fabric of Manipur and has immediate and real consequences for the law and order situation in the state.
- The government and other political actors, whether for political considerations or administrative convenience, must come to a broad agreement before the situation deteriorates further.

3.3 Forest Rights Act - Report Card**Why in news?**

- On the tenth anniversary of the historic passage of the Forest Rights Act, tribal resistance to defend their rights is growing even as government after government tries to dilute its provisions

What are the provisions of the Act?

- The Scheduled Tribes (Recognition of Forest Rights) Act, 2005 seeks to recognise forest rights of forest dwelling Scheduled Tribes (FDSTs) who have been occupying the land before October 25, 1980.
- An FDST nuclear family would be entitled to the land currently occupied subject to a maximum of 2.5 hectares. The land may be allocated in all forests including core areas of National Parks and Sanctuaries.
- In core areas, an FDST would be given provisional land rights for five years, within which period he would be relocated and compensated. If the relocation does not take place within five years, he gets permanent right over the land.
- The Act outlines 12 forest rights which include the right to live in the forest, to self-cultivate, and to use minor forest produce. Activities such as hunting and trapping are prohibited.
- The Gram Sabha is empowered to initiate the process of determining the extent of forest rights that may be given to each eligible individual or family.

What were the initial shortcomings?

- The initial bill was diluted of some important recommendations of the Parliamentary Select Committee on community forest rights, access to minor forest produce etc.
- The clause that Non-tribal Traditional Forest Dwellers would have to show evidence of their occupation of the land for 75 years virtually negated the inclusion of these largely poorer sections, many of them Dalits, in the law. Later the government brought in the three generation or 75-year clause.
- The Bill with these obnoxious clauses was circulated and listed for immediate discussion and passage.

- The Bill became law, but without the amendments promised. After much discussion and pressure, some of them were included in the Rules. It included giving prime importance to the role of the gram sabhas.
- In spite of its inadequacies, there can be little doubt that the Forest Rights Act (FRA) stands as a powerful instrument to protect the rights of tribal communities. It is a hindrance to corporate interests to their free loot and plunder of India's mineral resources, its forests, its water.

What are the latest moves against the act?

- **New legislations** - A series of new legislations undermine the rights and protections given to tribals in the FRA, including the condition of "free informed consent" from gram sabhas for any government plans to remove tribals from the forests and for the resettlement or rehabilitation package.
- Several laws were pushed without any consultation with tribal communities. They include the amendments to the Mines and Minerals (Development and Regulation) Act, the Compensatory Afforestation Fund Act and a host of amendments to the Rules to the FRA which undermine the FRA.
- The requirement of public hearings and gram sabha consent has been done away with for mid-sized coal mines. In Telangana the government has illegalised traditional methods of forest land cultivation. The Jharkhand government has brought amendments to the Chotanagpur and also the Santhal Pargana Tenancy Acts which eliminate rights of gram sabhas and permit tribal land to be taken over by corporates, real estate players, private educational and medical institutions without tribal consent.
- In Maharashtra the government has issued a notification of "Village Rules" which gives all rights of forest management to government-promoted committees as opposed to the gram sabha.

- **Change in Policy** - The commitment to ensure “ease of business” is of late being translated into clearing all private sector-sponsored projects in tribal-inhabited forest areas. The National Board for Wildlife, with the Prime Minister as Chairperson, was reconstituted, slashing the number of independent experts from 15 members to three, packing it with subservient officials.
- In last two years the clearances for projects have included “diversion” to the extent of 1.34 lakh hectares of forest land. In many areas this will lead to massive displacement of tribal communities.
- In the multipurpose Polavaram project in Andhra Pradesh alone, now given a national status by the Central government, 2 lakh hectares of forest land will be submerged affecting around 85,000 families, more than half tribals, including 100 habitations of particularly vulnerable tribal communities. In almost all these projects, the affected tribal families have not yet received their pattas (land ownership documents), one of the conditions set by the FRA.
- **Freeze of the actual implementation** - Neither individual pattas nor pattas for community forest resources are being given. According to one analysis, between May 2015 and April 2016, eight out of every 10 claims were rejected.
- Gujarat has one of the worst records in implementation of the FRA. Although 98 per cent of the approximately 1.9 lakh tribal claims had been approved by the gram sabhas, the bureaucrats in the sub-divisional committee and above brought the acceptance down to just 38 per cent.

What is the role of Judiciary?

- The same institution, which gave tribals hope through the Samata judgment, the historic Niyamgiri judgment, has also clubbed together a number of hostile petitions to the FRA and is giving them a sympathetic hearing.
- In January last year the court in an ominous intervention in a writ petition filed by Wildlife Trust of India and others issued notice to all State governments to “file an affidavit giving data regarding the number of claims rejected within the territory of the State and the extent of land over which such claims were made and rejected and the consequent action taken up by the State after rejection of the claims”.
- This has rightly been taken by tribal communities and their organisations as a prelude to mass evictions. Maharashtra issued a notification dated April 23, 2015, directing the police to take action against “identified encroachers”, namely those whose claims have been rejected.
- Till 1985, the department of “Tribal Affairs” was under the Home Ministry. Tribal rights and struggles for justice were viewed as a “law and order issue, always a problem”.
- Under the present dispensation this retrograde approach seems to have been resurrected, which has to be overturned.

3.4 Status of Tribal Development

Why in news?

- Ministry of Tribal Affairs has recently released an annual report.

What are the findings?

- The tribal population in India lags behind other social groups on various social parameters.
- **Health** - Tribal population, with a vast majority engaged in agricultural labour, has the largest number of anaemic women.
- The community also registered the highest child mortality and infant mortality rates, when compared to other social groups.
- At an all-India level, there is a shortfall of 6,796 Sub Centres, 1267 Primary Health

Centres and 309 Community Health Centres in tribal areas as on March 2015.

- **Education** - While educational achievements on the whole have improved, the Report shows that the gross enrolment ratio among tribal students in the primary school level has declined in 2015-16.
- The dropout rate among tribal students has been at an alarming level.
- While the overall poverty rates among the tribal population have fallen compared to previous years, they remain relatively poorer when weighed against other social groups.
- **Rehabilitation** - Out of an estimated 85 lakh persons displaced due to development projects and natural calamities, only less than 25% have been rehabilitated so far.
- In 2014, the Central government initiated the Vanbandhu Kalyan Yojana for the holistic development and welfare of tribal population on a pilot basis.
- The Report points out that the token budgetary provisions being made under the Vanbandhu Kalyan Yojana is minuscule and barely sufficient to meet the purpose of the Scheme given that it intends to cover 27 States across the country.
- The Ministry has emphasised that more funds be provided for the Scheme from the year 2016-17 onwards.

What is Vanbandhu Kalyan Yojana?

- It was launched by Ministry of Tribal Affairs in 2014.
- The Scheme mainly focuses on bridging infrastructural gaps and gap in human development indices between Schedule tribes and other social groups.
- It also envisages to focus on convergence of different schemes of development of

Central Ministries/Departments and State Governments with outcome oriented approach.

- It aims to improve the quality of life in tribal areas, quality of education, qualitative and sustainable employment for tribal families and protection of tribal culture and heritage

3.5 International Guidelines for Tribal Communities

Why in news?

- India has opposed international guidelines that require free or uninfluenced consent of tribal communities for commercially using their traditional knowledge at the global biodiversity negotiations in Cancun, Mexico.

What are the guidelines?

- More than 160 countries negotiated, under the United Nations Convention on Biological Diversity (CBD), ways to ensure sustainable use of bio resources, including traditional knowledge of indigenous communities and equitable sharing of benefits from commercial use of such resources with local communities in Cancun last week.
- An expert group under the CBD had recommended guidelines that sought countries to formulate laws that require “free, prior informed consent” of tribal communities for accessing their traditional knowledge to ensure benefit sharing and prevent unlawful appropriation of such knowledge.
- Term ‘prior’ implies the approval of tribal communities is taken well in advance, ‘informed’ means all relevant information is placed before them and ‘free’ means the consent is obtained without any coercion or manipulation.
- While most countries agreed that rules should be framed for “prior informed” consent, they had differences in including the term “free” in the guidelines.

- Several developed and developing countries such as European Union, Peru, Costa Rica, Guatemala, Mexico, Morocco, Philippines and Bolivia supported using 'free prior informed' consent in the guidelines but India, the African Group, Timor Leste and Indonesia opposed reference to "free" prior informed consent.
- In the face of the protest from India and others, diluted guidelines allowing countries to obtain consent as per their national legislations were agreed upon.
- Eventually, the CBD approved a compromised text of the guideline that says the countries can seek "prior informed consent," "free prior informed consent" or "approval and involvement," depending on "national circumstances".

3.6 Refugee Vs Refugee

What is the issue?

- Ever since the 2014 Assembly elections forced the PDP and BJP into a coalition in Jammu and Kashmir, tensions have erupted repeatedly over a lot of issues.
- The latest issues that are deepening the faultlines between Jammu and the Valley are the issuance of identity cards to Hindu refugees from West Pakistan, and the settlement of Muslim refugees from Myanmar in the state.

What are the identity certificates that the J&K govt has been issuing?

- They have a picture of the holder along with his name and parentage, and certify that he became a refugee from an area now in Pakistan after Partition.
- The certificate issued, says that the holder was a resident of an area in undivided India (that is now a part of Pakistan), and that he is now living at a particular place in J&K as a refugee from (erstwhile) West Pakistan.

How many West Pakistan refugees currently live in India?

- No recent figures are available. The 1951 Census counted 72,95,870 people who had moved to India from East Pakistan (now Bangladesh) and West Pakistan during Partition.
- Those who settled elsewhere became Indian citizens domiciled in the respective states, the 5,764 families who had arrived in Jammu from the adjoining areas of Pakistan were treated only as Indian citizens, and not as permanent residents of J&K.
- The refugees coming to J&K were treated differently from those who settled down elsewhere in accordance with Section 6 of the Constitution of the state.

What is the impact of identity certificates?

- Demands for permanent resident status to West Pakistan refugees probably started during and after the 1965 and 1971 wars.
- Many permanent residents were displaced from areas now controlled by Pakistan. And the state govt, in order to settle them elsewhere, took back agricultural land from West Pakistan refugees.
- The literate among those who lost their lands eyed jobs in the central government, especially in the Army and paramilitary forces.
- There was no major problem until around 2000, but thereafter, in the context of militancy, all central government recruiting agencies started asking for domicile certificates in order to ascertain their place of residence.
- Because the refugees were not permanent residents of the state, they faced difficulty in establishing that they lived in areas of the Jammu region.

- Though the identity certificates being issued to them do not confer upon them the status of permanent residents of J&K, they do give them an official address for the first time since they migrated to the state nearly 7 decades ago.
- Politicians in the Muslim-majority Valley seeing the issuance of identity certificates to West Pakistan refugees, who are overwhelmingly Hindu, as the first step to granting them domicile status as part of a bigger plot to change the state's demographic contours.

How do Rohingyas fit into these tensions?

- Rohingyas are a roughly 1-million strong ethnic Muslim community in Myanmar, most of whom are denied citizenship rights as their government considers them to be illegal immigrants from Bangladesh.
- A sizeable number have fled to India to escape persecution and violence, including nearly 7,000-8,000 in the Jammu region. Many of them carry certificates issued by the United Nations High Commissioner for Refugees (UNHCR) in Delhi.
- The belief that Kashmiri Muslims are taking away a major chunk of the state's resources, leads many in predominantly Hindu Jammu to look at the settlement of new Muslim families with resentment and suspicion.
- As with the West Pakistan refugees and the Muslim population in Kashmir, settlements of Rohingya Muslims in Jammu city — appear to many Hindus as a conspiracy to change the demography of the region.

3.7 Migration in India

Why in news?

- According to Census data released, southern states, especially Tamil Nadu and Kerala, have shown the highest increase in migrant population.

Who are migrants?

- The present study considers migrants by place of last residence i.e those who have last resided at a place other than their place of enumeration are deemed to be migrants.
- The study, however, does not point out whether these are interstate or intrastate migrants.

What is the current scenario?

- Migration patterns in India are increasingly reflecting the economic divide in the country, with more migrants over the last decade heading to the southern states, which have grown at a faster clip during this period.
- With 45.36 Crore migrants in India, every third citizen of the country is a migrant. Of these, 69% are women.
- Migrants constitute 37.8% of India's 121.03 Crore population.
- Tamil Nadu's migrant population surged 98% from 1.58 Crore in 2001 to 3.13 Crore in 2011.
- Kerala's migrant population has grown by 77%.
- Karnataka too has shown a 50% increase in its migrant population.
- Only Andhra Pradesh, with a 40% rise in migrant population, has shown a growth below the national average.
- The only other states which have shown a higher growth of migrant population are Meghalaya and Manipur, where the number of migrants have grown by 108% and 97% respectively.
- For Jammu and Kashmir, it was 55% and Assam 52%.

What is the reason for migration?

- While globally, migration is attempted by people to survive and prosper, in India, marriage appears to be the biggest reason why people migrate.
- Of the total 45.36 Crore migrants, 69% people referred to marriage being the reason for their migration.
- Only 11.17% of the migrants termed work and business as causes.

Why women migrate?

- Majority of women have cited marriage or having migrated with their husbands as the reason for their translocation.
- Apart from these, the Census data shows that Indian women are also migrating for work and education.
- The number of Indian women who are economic migrants moving for the sake of work, business or education has grown by 129%.
- During the same period, the number of male economic migrants grew by 51%.

Why surge in migration to Southern States?

- The socio-economic development of the southern states is considerably higher and that attracts people.
- Another factor is that because of better education levels and awareness, local residents of these areas get drawn towards better economic opportunities. This vacuum that gets created gets filled up by people from outside.
- These developed areas face a crisis of manpower, especially for low-skilled jobs, which leads to migration.

3.8 Economic Migrants' Contribution

What is the issue?

- There are times when economic compulsions force people to leave the zones of kinship, culture and comfort to seek a better life elsewhere. Migration must not be confused with refugees.
- If the problem is different, the solution cannot be the same. We need separate sets of policies, frameworks and procedures.

Why are the economic migrants to be treated differently?

- Economic migration is a natural outcome of an interconnected world, driven by global demand and supply in the labour market.
- The latest migration-related data indicate that over 90% of the 247 million people estimated to be living outside the country of their birth are economic migrants and only 10% may be refugees or asylum seekers.
- Economic migration is not a zero-sum situation i.e. what one person gains the other must lose. 35% of them are highly skilled, who provide crucial support to growth of the global economy, particularly in the knowledge and innovation sectors.
- Also as per the **McKinsey** Global report, migrants contribute around 9.4% of global gross domestic product, which amounts to an output of \$ 6.7 trillion — \$3 trillion more than what they might have produced in their countries of origin.
- If we see the element of productivity, migrants of all skill levels contribute to productivity effect in the top destination countries and so to global growth.
- Studies indicate that economic migrants contribute positively to new business formation, innovation and job creation, which

act as catalysts of growth for destination countries, in particular, and for the global economy in general they contribute above their weight.

What should be done?

- We need to develop a more comprehensive and long-term vision for addressing the economic dimension of migration.
- We need to synergise this with Agenda 2030 on Sustainable Development, by which we have committed to cooperate for facilitating orderly, safe, regular and responsible migration and mobility of people, including through implementation of planned and well-managed migration policies.

The following should be done:

- Migrants should be kept at the core of the agenda and develop programmes, tools and methodology to enhance the interests of migrants and their families while maintaining policy space for governments of destination, transit and origin.
- The economic dimension of migration and work towards eliminating barriers to economic migration should be focussed upon.
- An environment for safe, orderly, regular, open and legal migration should be created.
- Recognition of skills and human mobility partnerships should be focussed upon.
- Equal opportunities to women should be provided and non-discriminatory policies and practices should be adopted.
- Special provisions to take care of people in vulnerable situations and inclusion of persons with disabilities should be included.
- The human rights of migrants should be protected and exploitation and abuse should be stopped.

- Incidents and impact of irregular migration, including trafficking of people and migrant smuggling, as well as facilitating return and reintegration should be reduced.
- Provisions to respond to the situations of natural, man-made disasters and crises due to conflicts should be made, as these have the potential to disrupt the migration phenomenon and disproportionately affect the interest of migrants.
- Research indicates that a large section of migrants works in the informal sector. This is a grey area with its own sets of challenges and remains largely unregulated. A comprehensive, and objective understanding of these challenges is essential for the success of global governance as well as Agenda 2030 on Sustainable Development.

3.9 Survey on Inter-Caste Marriages and Untouchability

Why in news?

- A new survey called SARI (Social Attitudes Research for India) investigated what people think about inter-caste and inter-religious marriage and the prevalence of untouchability.

What are the findings?

- People from all backgrounds said that they would raise objections to people marrying from other social groups.
- Nearly 50% of the non-Scheduled Caste respondents in Delhi and 70% in Uttar Pradesh said that they would oppose a child or close relative marrying a Dalit.
- There was even greater opposition to inter-religious marriages.
- In Delhi, about 60% of Hindus said they would oppose a child or relative marrying a Muslim; a similar fraction of Muslims would oppose a child or relative marrying a Hindu.

- In Uttar Pradesh, the opposition was even greater: about 75% of Hindus opposed marriages with Muslims, and only a slightly lower fraction of Muslims, about 70%, opposed marriages with Hindus
- The survey asked respondents whether they thought there should be laws to stop marriages between upper castes and lower castes. About 40% respondents in Delhi and more than 60% in rural Uttar Pradesh said that such laws should exist.
- Laws against intermarriage have been sought among the lower castes as well as the upper castes.
- A higher fraction of women than men in each of Delhi, urban Uttar Pradesh, and rural Uttar Pradesh said they would support laws against inter-caste marriage.
- The idea that laws should prohibit inter-caste marriages was not confined to older generations. The only demographic factor that is strongly associated with support for laws against inter-caste marriage is education.

How prevalent is untouchability?

- Among non-Dalit Hindus in Delhi, a third said that someone in their household practises untouchability. In Uttar Pradesh, half of adults said that someone practises it.
- In Delhi, half the adults in non-SC Hindu households, where someone practises untouchability, said they themselves practise it. In Uttar Pradesh 70% did.
- These numbers are, we don't think that they capture the full extent of the problem. That is because some people know that it is not politically correct to admit practising untouchability to a stranger.
- Even though women and men live in similar households, women are more likely to report untouchability in the household. This suggests that either men are uninformed or they are giving a socially desirable, but incorrect, answer.
- Women may be more likely to report untouchability where it exists because they are less aware that it is not a politically correct thing to say.
- Another reason why women may be more likely to report untouchability is it is often practised in the context of food, utensils, and domestic help.
- Women are more likely to work with food and utensils than men, and so they are probably more likely than men to enforce untouchability.

Why inter caste marriages are less prevalent?

- Inter-caste or inter-religious marriages can make a person an outcast among his family and neighbours. He may even be barred from family inheritance. Even when families are not adamantly opposed to an inter-caste marriage, there is a strong belief that it is more convenient to settle down with a socially and culturally familiar person.
- The finding that even many educated people think there should be laws against inter-caste marriage raises serious questions about our education system and whether it is doing enough to reduce caste and religious prejudice.
- It is telling that many of the youth passing out of the premier technical and medical institutions still depend on their parents to choose their spouses.

What should be done?

- Each year, the Ministry of Social Justice and Empowerment makes available 500 monetary awards to inter-caste couples. The small size of this programme makes it more of a symbolic gesture than an actual incentive, but it is nevertheless a good idea.

- The government should be doing much more to promote inter-group marriage and to protect those who seek them. In practice, officials in the courts and the police often enforce divisive social norms rather than enforcing the laws. They may discourage or intimidate couples who try to marry across caste or religious lines.
- Lack of government support in the face of family disapproval may be one reason why the India Human Development Survey found that only 5% of marriages are inter-caste.
- To end untouchability will mean that everyone, from government official, to teacher, to young mother has to make an effort. Everyone needs to admit that untouchability is still a widespread problem, not only in rural India but also in urban India.
- A study of primary school students in the United States found that white students who read about both the accomplishments of and the discrimination faced by black Americans later displayed less biased attitudes towards blacks than white children who had merely read about accomplishments.
- So, rather than simply denying the existence of untouchability it is time for parents, teachers, and even the government to start talking to children about ending these practices today.
- According to the Census 2011, there were 914 girls to every 1,000 boys in India for children up to the age of six.
- A report pointed to the fact that in the absence of prenatal sex selection, several families resort to repeated pregnancies in their quest for a male child and data has shown that at every family size, there were more boys born than girls.

What is the issue?

- Fuelling the country's obsession with sons, a newspaper in Kerala called Mangalam, last week offered "scientifically proven" advice on how to conceive a boy.
- Among the advice offered by the newspaper are eating plenty of mutton, never skipping breakfast and always sleeping with the face turned leftwards.
- The column contains more ridiculous food habits to be followed to "ensure male baby".
- Several women in the country even pin their hopes for a male offspring on what are known as sex-selection drugs.
- Women are consuming these harmful drugs
 - linked to birth defects and stillbirths
 - without realising that the sex of a child cannot be altered in the womb.

What are the consequences?

- The article in the Kerala daily just goes to show that gender selection is widespread despite initiatives taken by the Indian government, NGOs and health workers.
- The message isn't going through and the people still value boys more than girls.
- Apart from the obvious gore in this practise, it also reflects a mentality that proves harmful to girl children, when the "escape" the sex selectiveness and enter the world.

3.10 Gender Selectiveness

Why in news?

- A Kerala newspaper offered 'scientific' advice for conceiving boys.

What is the current scenario?

- Indian society has long had a preference for sons. As a result, sex-selective abortion and female foeticide have led to the country having one of the world's most skewed sex ratios.

- Stereotypical gender roles that assign certain duties and ideal behaviour to people impact the way men treat women.
- When children are exposed to an imbalanced power system from almost the day they were born, a sense of invincibility makes boys believe people will excuse their deplorable behaviour.
- Children are not born violent, or aggressive or disrespectful of women. They learn to be so from grown-ups and other sources.
- This is because investing in men is also a way of ensuring women's empowerment, because a gender sensitive father, brother or spouse will positively impact women's lives.

3.11 Sachar Committee Report

Why in news?

- Ten years has been completed since Sachar Committee submitted its report.

What is Sachar Committee?

How prevalent is the crime among juveniles?

- More and more young people are taking to heinous crimes such as rape are magnifications of this mentality.
- Rape was the third most prevalent crime among juveniles in 2015 after theft and trespassing or burglary, says the National Crime Records Bureau.
- In 2015, more than 41,000 juveniles were apprehended across the country, 1,841 on rape-related charges.
- 1680 cases of rape were registered under juveniles in India under Section 376. Minors were booked in 88 cases of gang rape.
- Moreover, as one of our columnists noted, notions of honour are central to the discourse on rape.
- The rape of a daughter, sister or wife is a source of dishonour to males within the family structure. This deters the reporting of rape to the police.
- On March 9, 2005, the then PM issued a Notification for the constitution of a High Level Committee to prepare a report on the social, economic and educational status of the Muslim community of India.
- The seven-member High Level Committee, chaired by Justice Rajindar Sachar, submitted its final report to the Prime Minister on November 17, 2006.
- The Sachar Committee has compiled data from a number of sources. The report frames these issues as related to identity, security and equity.
- Barring some generic observations about the causes for the 'development deficit' among Muslims, there is no explicit or detailed discussion of the causes of such conditions.

What are the recommendations?

What should be done?

- In order to change the long-standing preference for sons, there is a need to first change the image of girls in our society.
- Violence against women will not decrease unless there is a thrust on having a gender-neutral approach towards policies and programmes.
- The Committee made a number of recommendations to address the status of the Muslim community in India, including:
 - Set up an **Equal Opportunity Commission** to look into grievances of deprived groups like minorities.
 - Create a nomination procedure to increase participation of minorities in public bodies.
 - Establish a delimitation procedure that does not reserve constituencies with high minority population for SCs.

- Create a **National Data Bank (NDB)** where all relevant data for various socio-religious categories are maintained.
- Increase employment share of Muslims, particularly where there is great deal of public dealing.
- Work out mechanisms to link madarasas with higher secondary school board. Recognise degrees from madarasas for eligibility in defence, civil and banking examinations.
- Set up an autonomous assessment and monitoring authority to evaluate the extent of development benefits.
- The Committee suggested that policies should “sharply focus on inclusive development and ‘mainstreaming’ of the Community while respecting diversity.”

What is the outcome?

- An analysis of government data show that most indicators have not seen significant improvement in the years since the Report was submitted.
- In some cases things seem to have, in fact, deteriorated — in 2005, for example, the share of Muslims among India’s police forces was 7.63%; in 2013, it fell to 6.27%.
- The government subsequently stopped releasing data on police personnel broken down by religion.
- Muslims continued to have the lowest average monthly per capita expenditure among all communities.
- The work participation rate for Muslim men increased only slightly to 49.5% in 2011 from 47.5% in 2001; for Muslim women, the increase was even smaller, from 14.1% in 2001 to 14.8% in 2011.
- Figures in IAS and IPS - The Sachar Committee recorded the percentage of Muslims in the IAS and IPS as 3% and 4% respectively. These numbers were 3.32% and 3.19% respectively on January 1, 2016.
- The fall in Muslim representation in the IPS was due to a steep fall in the share of Muslim promote officers in the IPS — from 7.1% in the Sachar Report to merely 3.82% at the beginning of 2016.
- Census data - As per the Census of 2001, Muslims were 13.43% of India’s population; in 2011, they were 14.2%.
- The increase of 24.69% in the population of Muslims between the two Censuses was the smallest ever recorded for the community.
- The sex ratio among Muslims remained better than that of India overall in both 2001 and 2011, and the percentage of Muslims living in urban centres too remained higher than the national average in both Censuses.
- The abysmally low representation of Muslim OBCs suggests that the benefits of entitlements meant for the backward classes are yet to reach them.
- The conditions of the general Muslim category are lower than the Hindu - OBCs who have the benefit of reservation. However, the conditions of Muslim-OBCs are worse than those of the general Muslim category.
- The three groups of Muslims in India ashrafs, ajlafs and arzals, (in order of “caste” hierarchy) require different types of affirmative action.

3.12 Finding the Missing Children

Why in news?

- In November 2016, the Madurai Bench, while addressing a complaint relating to a missing child, criticised the State government’s laxity in tracing missing children.

What are the problems?

- The court noted the lack of coordination between officials of the district administration, social welfare, child welfare committee and the police.
- The issue of missing children is a national problem which needs to be tackled efficiently and at the earliest.
- Statistics show that over 60,000 children go missing every year in the country.
- There are also concerns about the number of girl children who go missing and is often connected to human trafficking.
- According to the National Crime Records Bureau (NCRB), incidents of human trafficking are rising every year where the issue of tracing missing children and the links with trafficking was the area that demanded urgent legal reform.
- Between 2013 and 2014, 45% of missing children were victims of trafficking for prostitution.
- Primary causes for trafficking are forced marriage, child labour, procurement of minors as domestic help and sexual exploitation.
- The actual number of missing children is 10 times more than what is stated in findings because the majority of trafficking victims are not included in missing cases nor is there any official record.
- In the reasons identified by the NCRB for human trafficking, the most predominant cause was labelled as “other reasons”.

What were the measures taken?

- In 2012, NGO BachpanBachaoAndolan — filed a writ petition in the Supreme Court on the issue of missing children.
- Consequent to which the court ordered State and Central governments to periodically submit compliance reports in the court relating to the status of missing children.

- The Ministry of Women and Child Development also set up a website, trackthemissingchild.gov.in.
- This interactive website has information relating to missing children in each State and the number of children missing and traced in real time.
- Another portal which was set up in June 2015 is khoyapaya.gov.in where information relating to missing children can be submitted.
- The Government of India has start Operation Smile and Operation Smile-II to rescue/ rehabilitate the missing children.
- The railway police started implementing ‘Operation Muskaan’ to trace missing and destitute children and reunite them with their parents.

What needs to be done?

- Setting up these portals is good but greater awareness and specialised manpower are needed to ensure that these websites perform the functions that were envisioned for them.
- To begin with, the reasons behind children going missing need to be identified through specialised studies, unique to different States. This is because the reasons differ across the country.
- For example, in Madhya Pradesh, a key cause behind children being kidnapped is because they are used as domestic labour, which is not so in many other States.
- The issue of children becoming victims of trafficking frequently makes international headlines and there is rising global concern about trafficking.
- Considering the critically large number of trafficking cases that fell under the “other reasons” category, this issue needs deeper study to find a targeted solution.
- The draft Trafficking of Persons (Prevention, Protection and Rehabilitation) Bill, 2016,

which seeks to address loopholes in the legal system, impose stronger penal measures and address issues of rehabilitation, was not taken up in the winter session in Parliament.

- Strong, well-coordinated platforms are needed to deal with the problem of missing children.
- Sound rehabilitation measures need to be in place as well for the well-being and protection of rescued children who have been victims of violence.

4. GOVERNANCE

4.1 The Independence of Independent Directors

Why in news?

- On the wake of Tata Mistry row, the role of Independent Directors is under scrutiny.

Independent Directors - A risky job:

- To be an independent director these days is risky. Nowadays, they are being panned because some, at least, are standing up to be counted.
- Fingers have been pointed at NusliWadia's timing in raising questions about governance in Tata Group companies.
- His criticism of decisions taken on the Nano and a host of other points that he has made have been singled out as afterthoughts at best and mischievous at worst.
- Since these things happened many years ago, why was MrWadia silent all this time?

Decision-making process:

- A little reflection would show that the above criticisms hardly stand up to scrutiny.
- The decision-making process in a board, as in all institutions that are not hierarchically ordered, is through discussion and broad consensus.

- Among the different views expressed, one will ultimately emerge as the board's decision, either unanimous or through a majority.
- If a decision is taken on the basis of the views of the majority, must the minority who thought differently invariably resign?

It is a matter of opinion:

- Most of these are business decisions and not matters of principle or morals where no compromise is possible.
- Ultimately, it is just a matter of opinion. The fact is that boards take decisions based on what members feel will happen in the future.
- Sometimes they are right and sometimes they are wrong. But this is inevitable in the risky business of decision-making.

An invalid criticism:

- Another criticism of independent directors is that they are not supposed to act in concert or form a sub-group.
- But the Companies Act itself mandates that independent directors must meet at least once a year without the promoter or other directors being present and must, among other things, review the working of the board.
- Ultimately, a consensus will emerge in such meetings and unanimous decisions will be taken. Does this mean that independent directors are acting in concert?
- If one director seeks to convince other directors of his point of view, is he trying to stir up a revolt?

Reform needed:

- The truly valid criticism of independent directors is that their independence is often compromised by the method of their selection.

- It is usually the promoter who invites someone to become an independent director and the unspoken covenant is often complete allegiance to the promoter's diktats. So if reform is needed it is really in this field.
- Shareholders must be vigilant about appointment of directors on the board and vote against yes-men. Perhaps there can be a pool from which directors should be selected.

Concluding remarks:

- But most important of all, independent directors must grow out of the shadow of those who invited them to join the board.
- Once they are appointed they must show their independence, not by mindlessly opposing all that the promoters seek to do but by examining each case on merit, mindful of their obligation to small shareholders.

5. INDIA AND ITS NEIGHBOURHOOD

5.1 Indus Water Treaty and World Bank

Why in news?

- The India-Pakistan water dispute is set to intensify as New Delhi questioning the World Bank's neutrality in arbitrating between the two countries.

What is the issue?

- The World Bank brokered the Indus Waters Treaty (IWT) in 1960.
- It also settles differences arising from sharing of water and setting up projects along the Indus river basin.
- India is now not happy as the international body accepted Pakistan's demand to initiate a court of arbitration (CoA) process to resolve a dispute involving the 330-MW Kishenganga and 850-MW Rattle hydroelectric projects.

What is Pakistan's accusation?

- The tussle involves two hydroelectric projects that are coming up on the Jhelum and Chenab rivers respectively.
- Objecting to the design of the 330-MW Kishenganga project, Pakistan claimed it would result in a 40% reduction of water flowing into the country – flouting IWT provisions in the process.
- As for the 850 MW Rattle power plant, Pakistan wants the planned storage capacity of the project to be reduced from 24 million cubic metres to eight million cubic metres.

What is India's reaction?

- India, however, held that the two projects do not violate any provision of the treaty.
- Government sources said New Delhi accused the World Bank of adopting a "non-neutral" stand that appeared to favour Pakistan.
- India took a "very hard stand" against the World Bank for not acting on India's request to have neutral experts look into the dispute as per IWT provisions.
- An official from the Union water resources ministry alleged that the World Bank did nothing despite having 20 days to work on India's request. "But they promptly accepted Pakistan's demand to have a CoA," he said.
- The latest row follows the World Bank's decision to proceed simultaneously with two parallel mechanisms – Pakistan's demand for a CoA and India's request for neutral experts.
- India termed it as a decision that was "legally untenable" and violated the provisions of the IWT.
- This row has put the IWT under further strain.

What is the new development?

- The World Bank recently declared a “pause” to two separate processes initiated by India and Pakistan to resolve a new dispute over the Indus Waters Treaty. The dispute is related to the construction of the Kishanganga and Ratle hydropower projects in Jammu and Kashmir, which according to Pakistan, violates the treaty.
- While India welcomed the decision and said such disputes could be resolved bilaterally, Pakistan’s initial reaction has not been enthusiastic. It was Pakistan which took the matter to the Bank in August 2016, asking it to set up a Court of Arbitration under the Treaty’s provisions.
- India argued that a Court of Arbitration was not necessary, and asked the Bank for the appointment of a neutral expert, which is a lower level of dispute resolution mechanism under the treaty.
- The Bank initially said that it would activate both the processes simultaneously. India objected, saying the matter would get very complicated in case the two processes produced contradictory rulings.
- World Bank president Jim Yong Kim then wrote to the Finance Ministers of both countries, informing them of the decision to “pause” both processes, and asking them to seek “alternative” resolutions.

Why India and Pakistan opted different mechanisms?

- India and Pakistan are insisting on different approaches of dispute resolution because of their past experiences.
- On a design dispute on the Baglihar dam on the Chenab, a neutral expert had ruled in favour of India, even though the design of that dam was not strictly in accordance with the parameters prescribed in the Treaty.

- However, a similar question in the Kishanganga case — relating to reservoir level going below the dead storage level — was dealt with differently by the Court of Arbitration, which ruled that the design was inconsistent with the Treaty, and asked India to change it.
- Pakistan is keen to establish again that Indian constructions are illegal, and wants a legal resolution to the dispute; India, on the other hand, maintains that the dispute is of technical nature.

What is in the future?

- It’s not immediately clear what “alternative” methods could be employed by the two countries to sort out the issue.
- After Prime Minister Narendra Modi declared that “blood and water cannot flow together”, India suspended routine bi-annual talks between the Indus Commissioners of the two countries. Therefore the regular lines of communication over the implementation of the Treaty are currently unavailable.
- India, meanwhile, has established a high-level task force on the Treaty — it is headed by the Principal Secretary to the Prime Minister, and has the National Security Adviser, the Foreign Secretary, the Finance Secretary and the Water Resources Secretary among its members.
- It is clear that any talks with Pakistan on the Treaty are unlikely to be purely technical in nature.
- It is also possible that the World Bank might nominate a few independent experts to mediate between the countries.

5.2 India and CPEC

Why in news?

- Pakistani General suggested that India should shun its “enmity” with Pakistan and

join the \$46 billion China-Pakistan Economic Corridor project. The Chinese foreign ministry also has called the offer a “goodwill gesture”, exhorting India to take it up.

What is China-Pakistan Economic Corridor (CPEC)?

- It refers to a clutch of major infrastructure works currently under way in Pakistan, intended to link Kashgar in China’s Xinjiang province to Gwadar deep sea port close to Pakistan’s border with Iran.
- The project seeks to expand and upgrade infrastructure across the length and breadth of Pakistan.
- Chinese firms will invest just under \$ 46 billion in the project over six years — including energy projects and infrastructure.

What are Pakistan’s Gains?

- The \$ 46 bn promised by China is three times the total FDI it has got in the last decade.
- The project is estimated to directly create some 700,000 jobs up to 2030, and speed up GDP growth.
- The bulk of the investment will be in energy. \$ 15.5 bn worth of coal, wind, solar and hydro energy projects will come online by 2017 and will reduce power shortage in the country.
- Besides the potential for growth, it gives greater strategic leverage with both India and the United States in the Indian Ocean region.

What are China’s Gains?

- The CPEC is part of China’s larger regional transnational ‘One Belt One Road’ (OBOR) initiative.
- Gwadar lies close to the Strait of Hormuz, a key oil shipping lane. It could open up an energy and trade corridor from the Gulf across Pakistan to western China, that could also be used by the Chinese Navy.

➤ The CPEC will give China land access to the Indian Ocean, cutting the Strait of Malacca route around India, to a mere 2,000 km road journey from Kashgar to Gwadar.

➤ CPEC provides investment opportunities for Chinese companies.

What are the problems in the project?

- Both Balochistan and Khyber Pakhtunkhwa have complained that power projects that ought to be theirs have gone to Punjab.
- The unpredictable security situation remains a huge concern.
- There is some concern about the Uighur militants in Xinjiang as well.
- Co-operation among the provinces is a key to the success of the CPEC. Pakistan have traditionally failed in this area.
- How is the relationship of India with China & Pakistan?

India has no dialogue with Pakistan at present.

- It has opposed the project, bilaterally with China “at the highest level” as well as at the UN.
- Relations with China have deteriorated considerably since the announcement of the project in April 2015.
- China has defended Pakistan against India’s efforts to pin it down with regard to support to terror groups.
- It has opposed India’s Nuclear Suppliers Group membership application.
- Given all this, the suggestion by China and Pakistan can only be understood to have been made rhetorically, especially as it was accompanied by allegations of India’s “anti-Pakistan activities and subversion” in Balochistan.

What is the scope of CPEC?

- These factors show that there is little expectation of any room for India in CPEC at present.
- But there is space for India to step back and see where China and Pakistan want to go with it.
- CPEC is no longer a project in Pakistan, but one that runs through it, a project that will link 64 countries.
- The offer to India was made along with offers to other “neighbouring countries”.
- Already, Iran wants Gwadar to be a “sister” port to Chabahar.
- Turkmenistan and other Central Asian Republics have shown interest in the warm-water port that will be a nodal point for goods through Pakistan to the Chinese city of Kashgar.
- Despite its problems on terror from Pakistan, Afghanistan is becoming a nodal point for China’s connectivity projects to Iran.
- The meeting among Russian, Chinese and Pakistani officials on Afghanistan this week, and Russian engagement with the Taliban, indicate much more is changing in the region than just the alignment of highways and tunnels.
- While India has done well to shore up relations with others in the region, it cannot afford to be blind-sided by their involvement with the OBOR project and Chinese plans.

5.3 India offers Tsunami Alert System to SCS countries

Why in news?

- India is looking to have South China Sea countries such as Vietnam, Malaysia and Philippines use the tsunami early warning-system developed by India.

How does the early warning-system work?

- Since a deadly tsunami struck Tamil Nadu in 2004, India has put in place its own tsunami-alert system over the years that immediately warns concerned authorities in India of any large earthquake in the Indian Ocean and the threat it poses.
- However, because of limited data on the historical occurrence of tsunamis, scientists at the Indian National Centre for Ocean Information Services (INCOIS) have developed a technique that uses mathematical modelling to estimate if an earthquake will result in a tsunami.
- The system is also designed to send out a series of graded warnings to warn officials of danger.
- There are also sensors lodged on the ocean floor that will measure actual earthquake signals and based on that we can revise our warnings.
- We’ve expanded our modelling capabilities to include countries in the South China sea and so it can be useful to them too.

What is the significance of the move?

- India already provides earthquake and tsunami-warning alerts to several countries in the Indian Ocean neighbourhood, as do Australia and Japan.
- The South China Sea is a controversial region with China exerting territorial rights over a large part. Some of these territorial claims have been challenged by Vietnam, Malaysia and the Philippines.
- By the current move India is aimed at achieving soft power. It isn’t expecting a commercial deal to result but fame and leadership from the effort. This could help with broader government efforts.

- India so far has only said that all countries must abide by the United Nations Convention on the Law of the Sea (UNCLOS), which governs how countries must respect international waters and the ocean boundaries of countries. China too is a signatory to this convention.
- Talks were held with China last year to use India's early warning system.
- While a very insignificant number of these earlier Rohingya migrants returned home as a result of local and international measures, a very large segment of as many as 5,00,000 stayed back.
- The fears of a fresh influx of Rohingya therefore have compelled the Bangladesh government to refuse entry.

5.4 Rohingya - Bangladesh's Dilemma

What is the issue?

- With prevailing persecution of Rohingyas, Bangladesh's people and government feel morally pressured to take in the refugees. But the hard realities make it difficult.
- Bangladesh's government and vast sections of its people are not swayed by the argument, that once the Yangon authorities are persuaded into arriving at a deal on the status of the Rohingya, those allowed entry into Bangladesh will go back home.
- From among those Rohingya who have been in Cox's Bazar and Chittagong for the past couple of decades has emerged a new class of Islamist militants hostile to the growth of liberal politics in the country. Most of these new militants came under indoctrination by such fanatical groups as the Jamaat-e-Islami.

Why it is an emotional issue?

- It is argued that Bengalis should look back at the history of their own persecution by the Pakistan army in 1971, when 10 million of them crossed into India and were provided shelter.
- Images of Bangladesh's coast guard and its navy turning away Rohingya approaching the country's shores have been deeply unsettling for people.
- Add to that the corruption involved in a supply of Bangladeshi passports illegally to large groups of Rohingya, who then made it to West Asia as wage earners. They committed criminal acts in the Middle East, leaving the country red in the face.

Why Bangladesh government is reluctant?

- The 1971 analogy does not work as the Rohingya are not engaged in a war of independence. Another reason is that the conditions do not exist for Bangladesh to pursue a military solution to the Rohingya issue with Myanmar.
- Bangladesh government remains wary of letting the Rohingya in owing to their experiences in the past. In the 1990s, a very large number of Rohingya, fleeing persecution in Myanmar entered Bangladesh and made their home in the coastal regions of the country.
- Adding to these, Bangladesh's government and people were confounded by the absolute silence of Myanmar's democracy icon Aung San SuuKyi on the issue.
- In her years in incarceration, SuuKyi enjoyed mass adoration in Bangladesh and it was only natural to expect that she would influence a change in the approach to the Rohingya situation.
- That she has said not a word, and has carefully stayed clear of addressing these persecuted people as Rohingya, has convinced people in Bangladesh that the Myanmar military continues to call the shots and that SuuKyi wields little authority.

6. BILATERAL AND INTERNATIONAL RELATIONS

6.1 India and Vietnam likely to sign Civil Nuclear Pact

Why in news?

- India is likely to seal a landmark civil nuclear pact with Vietnam this week during the visit of the President of Vietnam's National Assembly.
- It is the first such partnership with a neighbour of China.

What are the provisions of the deal?

- During Prime Minister Narendra Modi's trip to Hanoi in early September the two sides also agreed to accelerate the negotiation process for a new Inter-Governmental Framework Agreement on Cooperation in the Peaceful Uses of Nuclear Energy.
- India has been helping Vietnam's civil nuclear sector since signing the first agreement in 1986, besides supplying a research reactor and training a few scientists under the International Atomic Energy Agency programme.
- The current agreement in the field of civil nuclear cooperation will entail
- Capacity building and training of Vietnamese nuclear scientists by India
- Assistance to improve safeguard measures of nuclear installations in the Southeast Asian country.
- Sri Lanka is the only other developing country with which India has signed a civil nuclear pact.
- Vietnam currently has bilateral civil nuclear pacts with Russia and Japan, a fact that will complement Indo-Vietnamese partnership. While Russia has wide-ranging presence in

India's civil nuclear sector, India and Japan concluded a civil nuclear pact last month.

What else will be addressed in the visit?

- The visit of President of Vietnam's National Assembly, third highest ranking leader of Vietnam, will push comprehensive strategic partnership between the two countries.
- The National Assembly President will be accompanied by a big business delegation to push economic and investment ties.
- The visit will also provide a fillip to parliamentary cooperation through exchanges between leaders of parliaments, committees, parliamentary friendship groups and parliamentarians of two countries.

6.2 Improving Defence Cooperation

Why in news?

- As part of a defence appropriations bill of over \$600 billion, the US Congress passed legislation that designated India as a "major defence partner".

How well is India-US defence cooperation?

- Under the newly designated status, India will be treated at par with the US's closest allies when it comes to the transfer of defence technologies.
- The defence cooperation entered into next stage in 1995 with the Agreed Minute on Defence Relations.
- However, after May 1998 following the Indian nuclear tests, all such collaboration effectively ground to a halt.

What are the reasons that hinder India-US defence cooperation?

- Despite the successful conclusion of this diplomatic minuet, progress on defence cooperation did not materialise.

- First, India had remained heavily dependent on Russia for its defence supplies.
- Second, despite the Cold War's end, some within India's policymaking community remained reluctant to turn to the US for substantial defence purchases.

What was the approach of Obama's administration?

- The Obama administration's initial approach to India appeared lukewarm.
- Following the assassination of Osama bin Laden and the US decision to drawdown its forces in Afghanistan, Pakistan's utility dramatically declined.
- Around the same time, the PRC, which had been boosting its presence in the South China Sea, showed signs of greater assertiveness.
- Despite past tensions with the US over Modi's tenure as Gujarat's chief minister, the Obama administration adopted a pragmatic approach toward the new regime.
- The P.M proved to be more than willing to reciprocate.

Whether the defence cooperation is transforming?

- The US Congress's willingness to designate India as a "major defence partner" represents the culmination of a process that has slowly but surely brought the two states into a mutually supportive defence cooperation relationship.
- Along the way, it has also been supplemented with important defence deals.
- India has become not only the largest foreign purchaser of US weaponry but the US has now transplanted Russia as the principal supplier of weaponry to India.
- Even though some big-ticket joint projects, such as the building of an aircraft carrier,

remain in abeyance, there is little question that the Indo-US arms transfer relationship has undergone a fundamental transformation.

6.3 India-Japan Minimum Import Price issue

Why in news?

- Japan has dragged India to the World Trade Organisation against certain measures taken by New Delhi on imports of iron and steel products.

What happened?

- India has imposed minimum import price (MIP) on imports of certain iron and steel products.
- In February, India imposed MIP of 173 products for six months, which was later extended twice for two months.
- According to the ministry sources, WTO-compliant measures like anti-dumping duty should be used to overcome the issue of cheap imports of commodities.

What is Minimum Import Price?

- MIP is the minimum price per tonne that Indian firms have to pay while importing products into India.
- The Govt. of India on February 5, 2016 had imposed the MIP on steel ranging from \$341 to \$752 per tonne on 173 steel products.
- So MIP can be seen as a type of quantitative restriction which aims at providing relief to the domestic steel product manufacturers from low priced steel from abroad.
- This can be seen as government's policy of promoting domestic growth of steel manufacturing industry and restricting and reducing dependence on externally manufactured steel products.
- This would also help in reducing fiscal deficit.

What are the problems related with MIP?

- One of the problems related with MIP is of money being illegally stashed off in overseas accounts of Indian importers.
- Indian importers of steel are under the scanner for deliberately over invoicing to show on paper that the price of item they are importing is equal to or above the MIP while the actual price of import may be well below the MIP.
- The importers are alleged to have parked this difference in money between the MIP and the actual price of the products into foreign accounts to escape from Indian government's tax.

6.4 U.S & Israel - UNSC Voting

Why in news?

- The Obama administration allowed the United Nations Security Council (UNSC) to adopt a resolution that condemned Israeli settlement construction.

What is UNSC?

- The United Nations Security Council (UNSC) is one of the six principal organs of the UN, charged with the maintenance of international peace and security as well as accepting new members to the United Nations and approving any changes to its United Nations Charter.
- It consists of fifteen members. Russia, the United Kingdom, France, People's Republic of China and the United States serve as the five permanent members. They can veto any substantive Security Council resolution.
- The Security Council also has 10 non-permanent members, elected on a regional basis to serve two-year terms. The current non-permanent members are Angola, Egypt, Japan, Malaysia, New Zealand, Senegal, Spain, Ukraine, Uruguay and Venezuela.

What was the resolution?

- Israel for decades has pursued a policy of constructing Jewish settlements on territory captured by Israel in a 1967 war with its Arab neighbours including the West Bank, Gaza and East Jerusalem.
- Most countries view Israeli settlement activity in the West Bank and East Jerusalem as illegal and an obstacle to peace.
- The resolution had been put forward by Malaysia, New Zealand, Senegal and Venezuela.
- In the resolution, the Council reiterated its demand that Israel "immediately and completely cease all settlement activities in the occupied Palestinian territory, including East Jerusalem, and that it fully respect all of its legal obligations in this regard".
- The 15-nation Council adopted on Friday the resolution by a vote of 14 in favour.
- In a rare step the United States abstained, enabling the adoption of the first UN resolution since 1979 to condemn Israel over its settlement policy.

Why did U.S abstain?

- The action follows growing US frustration over the unrelenting construction of Jewish settlements on land Palestinians want for a future independent state.
- The US broke with the long-standing American approach of shielding Israel, which receives more than \$3 billion in annual US military aid, from such action.
- The US abstention was a result of failed efforts to forge a peace agreement based on a "two-state" solution of creating a Palestinian state existing peacefully alongside Israel.
- US Ambassador to the UN Samantha Power said that US did not veto it because the

resolution “reflects the facts on the ground and is consistent with US policy across Republican and Democratic administrations.”

What is the outcome?

- The resolution formally enshrined the international community’s disapproval of Israeli settlement building.
- While the resolution contains no sanctions, it could widen the possibility of prosecution at the International Criminal Court (ICC).
- It could encourage some countries to impose sanctions against Israeli settlers and products produced in the settlements.

What are the shortcomings?

- The resolution has more symbolic value and is unlikely to change the situation on ground between Israel and Palestine.
- The PM of Israel called the resolution anti-Israel and will not abide by its terms.
- The President-elect Trump is likely to be a staunch supporter of Israel’s right-wing policies.
- The upcoming U.S. ambassador to Israel also rejects “two nation theory”.
- Therefore the future is not clear as of now, regarding peace between Israel and Palestine.

6.5 Statesmanship on Paying Homage

Why in news?

- Japanese Prime Minister Shinzo Abe visited to Pearl Harbour this week.

Why the apology has been delayed?

- In the case of Japan, the conservatives have long regarded that any attempt to apologise

for the slaughter of hundreds of U.S. marines at Pearl Harbour in 1941 as nothing but a betrayal of the national interest.

- In the US view, the horror in Hiroshima and Nagasaki brought the war to a close sooner than it might otherwise have been. They have also sought to repudiate the narrative that the dropping of the atom bomb was a calculated demonstration of U.S. and western military superiority in a Cold War scenario.

Were there precedence?

- Much earlier this year the Canadian PM Justin Trudeau has formally apologized in the House of Commons for the Komagata Maru incident.
- Kniefall von Warschau was a famous incident that happened on December 7, 1970, during a visit to a monument of Warsaw Ghetto Uprising by the then German Chancellor Willy Brandt.
- After laying down a wreath, Brandt, spontaneously knelt. He remained silently in that position for a short time apologising for the crimes committed in Warsaw Ghetto.

Why is it significant?

- Earlier U.S. President Barack Obama paid his homage at the peace memorial at Hiroshima.
- Both the leaders have undertaken this bold and difficult journey on behalf of their peoples more than 70 years after atrocities were committed against each other during World War II.
- Conspicuous gestures of reconciliation between nations to heal the deep emotional wounds of wars will have connotations that go beyond the symbolic.

- Abe and Obama have displayed a statesmanlike readiness to rise above partisan accounts.
- They emphasised the need to bridge the gulf that neither history nor geography could have narrowed.
- “The ability to acknowledge a wrong that has been done, to simply say sorry, will go a far far longer way than some percentage of GDP in the form of aid.”
- Prime Minister Abe and President Obama have shown how history can be revisited in a realistic manner.
- It remains for countries grappling with their own complex pasts to draw the right lessons from this.



IAS PARLIAMENT

PAPER - III

7. INDIAN ECONOMY**7.1 Asia-Pacific Trade and Investment Report 2016****Why in news?**

- The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) recently released Asia-Pacific Trade and Investment Report 2016.

What is ESCAP?

- The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) is the regional development arm of the United Nations for the Asia-Pacific region.
- It was established in 1947 with its headquarters in Bangkok, Thailand.
- Made up of 53 Member States and 9 Associate Members, with a geographical scope that stretches from Turkey in the west to the Pacific island nation of Kiribati in the east, and from the Russian Federation in the north to New Zealand in the south, the region is home to 4.1 billion people, or two thirds of the world's population.

What is the condition of Asia Pacific?

- Asia-Pacific trade flows were uncertain during sluggish global economic and trade growth, downward movement of world commodity prices and an uncertain policy environment.
- Sluggish growth in trade is expected to continue through to the end of 2016.
- Rebounding somewhat, exports from Asia-Pacific are expected to increase by 4.5 per cent and imports by 6.5 per cent in developing countries of Asia and the Pacific in 2017, but

the Report forecasts more modest growth in exports and imports in volume terms, at 2.2 per cent and 3.8 per cent, respectively.

- The report revealed that the region had improved its market share in the commercial services trade, with the services trade more than doubling between 2005 and 2015, from just under \$600 billion to close to \$1,400 billion.
- These aggregates, however, conceal the fall in the region's export and import of services by 4.5% and 4.9% in 2015, respectively, compared with the previous year.
- This fall was mainly due to persisting economic uncertainty resulting in the global decline in merchandise trade and a depressed demand for the services sector including transport.

What is the status of India?

- ESCAP said international and intra-regional trade costs of India remained higher compared with the trade costs of best-performing economies in Asia and the Pacific.
- However, it said in addition to India's robust economic growth and large domestic market, the Government's "Make in India" initiative and easing of FDI regulations for about 15 sectors including aviation, defence and pharmaceuticals may contribute to the FDI attractiveness of India.
- On the other hand, overseas investment from India contracted considerably by 36 per cent, which may reflect FDI diversion as Indian investors start to invest more at home than overseas.
- FDI inflows to India expanded by 10% on average during 2010-2015, while in 2015 inflows recorded an even stronger expansion

at 27.8 per cent, which was significantly higher than the Asia-Pacific region's average 5.6 per cent.

- The services, construction development, computer software and hardware, and telecommunications sectors attracted the highest investments.
- In 2015, Indian goods exports shrank by 17.2%, which was close to twice as much as the Asia-Pacific region decline of 9.7%.
- However, it added that India was the largest partner with several economies in South Asia, such as Bhutan, Nepal and Sri Lanka. Since India is the fastest-growing emerging economy, it is somewhat expected to start filling the void in demand for intraregional exports that will emerge with the rebalancing of China's trade patterns.
- The central bank assessed that the risks have stayed "elevated due to continuous deterioration in asset quality, low profitability and liquidity."
- Given the central role commercial lenders have in the financial system — serving to harness public savings and direct the flow of crucial credit to the most productive industrial and infrastructure sectors — any systemic risk to the banking industry has the potential to ripple across the entire economy.
- The new assessment iterates that there has been no perceptible improvement in the health of domestic banks, even six months after the RBI's previous report had highlighted the sector's high vulnerability on account of the increase in capital requirement and worsening asset quality, spotlighting the need for urgent policy interventions.

What are the restrictive policies in operation?

- A worrying trend on another front is the increased usage of restrictive trade policies, especially non-tariff measures, within the Asia-Pacific region, which is partly driven by past distortive trade measures and current excess capacity in several key sectors.
- Additionally, the region is seeing a proliferation of preferential trade agreements (PTA), with Asia and the Pacific rim contributing to almost 63 per cent of world PTAs, curbing a momentum towards region-wide free trade, it added.

7.2 RBI's Financial Stability Report

Why in news?

- The Reserve Bank of India's biannual Financial Stability Report has once again flagged the fact that risks to the banking sector remain worryingly "high".

What the central bank's assessment says?

How the bad loan problem is tackled?

- Some measures have been initiated and others are in the pipeline, including a draft Financial Resolution and Deposit Insurance Bill to address bankruptcy situations in banks and other financial entities.
- Still, there is every reason to prioritise the restoration of the sector's health as some of the risks inherent in banks may already be getting transferred to other segments of the financial markets, according to the RBI's report.
- A survey, of experts and market participants, conducted by the RBI in October-November reveals that among institutional risks, credit growth and cyber risk were seen as two key "high risk factors".
- The bank suggested that the "unhealthy parts of the troubled banks" could be separated from the healthier assets and put into a 'bad bank' to prevent systemic contagion.

- With the RBI pointing out that banks saddled with bad loans were likely to remain “risk-averse” and find themselves lacking the capital needed to lend more to meet credit demand in the economy, the regulator and the government will need to work in close concert to expeditiously resolve this vital legacy issue.
- Also, investments in other asset classes such as debt, real estate and gold attract LTCG tax, albeit with inflation indexation benefits.
- The idea of not levying LTCG tax was one of the recommendations of the Vijay Kelkar-led task force on direct taxes in 2002.
- There is a thought that since everyone is paying the Securities Transaction Tax (STT), there shouldn't be capital gains tax.

7.3 Long -Term Capital Gains tax

Why in news?

- Prime Minister Narendra Modi suggested that people earning from financial markets must make a “fair contribution” to nation building which was interpreted as higher taxes on income from capital markets.
- But the Finance Minister soon clarified that the government does not plan to impose a long-term capital gains tax.
- But, the logic does not hold water as there are various levies on gold and jewellery as well as real estate.
- Also, it is only the more prosperous class of Indians who invest in equities, and when they earn profits there is no reason why they should not be taxed.
- Similarly, foreign investors who make profits by investing in Indian markets should also be paying tax.

What is LTCG tax?

- If capital assets like stocks, bonds, land, residential property etc are sold after 36 months from the date of acquisition, then the profits from the sale are termed as long term capital gains (LTCG) and the tax levied on them are LTCG tax.
- While most developed countries tax such profits, the problem is wrong timing.
- That is because Indian markets have been witnessing a massive outflow of foreign portfolio investments as a result of Demonetisation, US presidential elections results and the Federal Reserve rate hike.

What is the current scenario?

- At present, equity investments held over one year do not attract any LTCG tax, while the tax rate on short-term capital gains is at 15%. However, all traders and investors pay a securities transaction tax (STT), which ranges between 0.017 and 0.125%, on their capital market transactions.
- Even before the government announced demonetisation, there were concerns about the iffy nature of India's economic recovery.
- Therefore what the markets need at present is stability in tax policy not speculations.

What is the consequence of imposing the tax?

- On its own, it is not a bad idea to levy tax on LTCG from stock market transactions.
- In India, where the welfare demands on the state exchequer are far more onerous, but just about 500,000 citizens pay income tax above Rs 5 lakh.

7.4 Indian Enterprise Development Service

Why in news?

- Government approved cadre review and formation of the Indian Enterprise Development Service (IEDS) in the Office of Development Commissioner, Ministry of Micro, Small and Medium Enterprises.

What is the need?

- Creation of the new cadre and change in structure will help achieve the vision of 'Startup India', 'Stand-up' India and 'Make in India'.
- Will enhance the capacity and efficiency of the organisation and also help in achieving growth in the MSME sector through a dedicated cadre of technical officers.
- The Service has been created by absorbing 11 trades, recruitment to which had been done differently, following different rules.
- The work of the officers of the department has changed over the years and there is need to have a cadre which works for the development of enterprise and thinks holistically.
- The Indian Enterprise Development Service, will have a cadre strength of 617 officers, 6 of which will be at the level of joint secretaries.
- These officers will man 72 field offices of the Development Commissioner and the headquarters in Delhi.
- Out of the 72 field offices, 30 are MSME development institutes and 28 branch institutes.

7.5 Financial Data Management Bill, 2016

Why in news?

- A committee set up under the Department of Economic Affairs has recommended the creation of a statutory body that will standardise data from all financial sector regulators in a single database and will provide analytical insights based on the data.

Financial Data Management Bill, 2016

- The report of the committee to study the financial data management legal framework

in India, suggests the passage of a Bill in Parliament—the Financial Data Management Centre Bill 2016.

- The bill proposes to create a statutory body.
- Subject to the provisions of this Act, or any other law for the time being in force, it shall be the duty of the Data Centre to take measures to standardise data from regulators in consultation with the regulators.
- It will enable financial service providers to submit data in a standardised electronic format, analyse the data and maintain a financial system database.

What are the powers of Financial Data Management Centre?

- The powers of the Financial Data Management Centre (FDMC) will include the establishment, operation and maintenance of the financial system database along with collecting financial regulatory data and providing access to it.
- The body will also provide analytical support to the Financial Stability and Development Council (FSDC) on issues relating to financial stability.
- In 2015, when the FSDC first suggested the creation of such a body, the Reserve Bank had objected to sharing company-specific data with the body as it was not statutory in nature, and sharing such data would be a breach of confidentiality.

7.6 National Financial Reporting Authority

Why in news?

- The recent report of Parliament's standing committee on finance on the Companies (Amendment) Bill 2016 has reopened what appeared to be the settled position on auditor regulation.

What is the issue?

- The Companies Act 2013 provides for setting up a National Financial Reporting Authority (NFRA).
- The ministry of corporate affairs issued rules that will give the National Financial Reporting Authority (NFRA) an overarching role to regulate chartered accountants and set standards.
- The current regulator ICAI is against it.
- NFRA has a larger remit than NACAS (National Advisory Committee on Accounting Standards), which it is meant to replace. NACAS only recommends accounting standards. NFRA will set accounting and auditing standards, monitor and enforce compliance with the standards, and oversee the accounting profession's record of ensuring compliance.
- The authority will also have the power to investigate misconduct committed by any member or firm of chartered accountants.
- It will take away significant regulatory powers from the Institute of Chartered Accountants of India (ICAI). What has worried the CA community the most is the fact that in cases where the NFRA initiates the investigation, no other institute or body can initiate or continue any proceedings.

Why ICAI is against it?

- They are of the view that NFRA should not be given the power of investigation as the ICAI is doing the same work. Also, the multiplicity of regulators will not serve any purpose as steps suggested by the government are already being undertaken by the institute.

Why self-regulation is detrimental?

- Self-regulation works only up to a point. Society expects that the professions will police themselves effectively as a deviant conduct damages the reputation of an entire

community, so there is incentive for them to punish the bad guys.

- But there is a lot to commend in this market-based argument. Unfortunately, the market fails quickly in a self-regulatory mechanism. An individual member engaging in aberrant conduct is unlikely to be deterred unless the punishment is swift and appropriate.
- Neither is probable because the members elect representatives who decide whom to punish and what the punishment should be.
- It is no longer the well-intentioned mechanism at work. The political process takes over and there will inevitably be compromises.
- More importantly, self-regulation hurts those outside the accounting community. Investors and lenders are often victims of dodgy accounting and incompetent auditing.
- They would have no confidence in the fairness of the process when their complaints are heard by other accountants. For this reason, many who have suffered at the hands of accountants are unlikely to have even complained to the ICAI. This is the reason for a relatively low number of complaints.

Why new regulator is desirable?

- That is why in most countries outsiders oversee the work of accountants. The Public Company Accounting Oversight Board (PCAOB) in the US and the Financial Reporting Council (FRC) in the UK are examples of effective outside regulation.
- The ICAI and its members will be the biggest beneficiaries of external regulation. When there is greater assurance that improper conduct will be punished, the value of the ICAI's franchise will go up.
- They don't have to fear losing clientele. They can expect to be paid more for being strict. They can invest more in training and technology and pay their employees better. Eventually, inferior firms will drop out of the audit market.

- NFRA can enhance investor protection by effective oversight of accounting and auditing. It will fill a critical gap in the current arrangements by enforcing compliance with standards. Dumping NFRA will be a clear case of regulatory capture by the accounting industry.
- Accounting is one of the professions most threatened by automation. The Bank of England's chief economist said that chances of accountants being replaced are "a whopping 95 per cent".
- Outsourcing regulation will free resources for the ICAI to work on developing new and complex skills needed in the uncertain world of technology.
- Therefore ICAI should facilitate NFRA's work by training expert witnesses who can provide independent opinion in disciplinary cases.
- This will enable participants in a payment system to move in their own orbits performing functions that when interwoven ensure that the country has an efficient, secure and reliable payment system that reduces the cost of exchanging goods and services

What is the role of RBI?

- RBI is the sole regulator for the payments industry space and derives its power to oversee the payments industry from the Payment and Settlement Systems Act (2007) and its accompanying regulations.
- Several circulars and guidelines have been issued for the regulator to govern prepaid instruments, intermediaries and the payment system operator.
- Electronic wallets and mobile banking are exempted from KYC compliance for transactions under Rs20,000 and has relaxed the security measure of requiring two-factor authorization to only when one loads money from other banking instruments.
- RBI has also ensured there is not much float pending with prepaid instruments by requiring certain prepaid instruments to seek its approval and exempting those that facilitate simultaneous settlement and clearance.

7.7 Regulating the Digital Payment system

Why in news?

- Demonetization has resulted in larger dependency on Digital payments.

What are the requirements of digital transaction regulatory framework?

- It needs a comprehensive legal framework assessment that can identify and set out the rights and obligations of each payment system participant in the ordinary course of business and in adverse conditions is a robust one.
- It will have to cover the wide range of instruments and test them for conflict such as with the new insolvency and banking laws.
- Seamless cooperation between the bodies involved in policy and regulatory development must be forged.
- The playing ground for entrepreneurs must be levelled so as to provide confidence, stability and integrity in the financial system.

What should be done?

- Although the regulator is at present vested with powers to call out a systemic risk posed by a participant in the payments space, it may also do well to identify certain payment systems as critical and afford them systemic important status.
- Such singling out will ensure that their failure in a nascent payment industry does not trigger further disruptions among system participants and stretch to larger financial markets.
- The regulator must also set up an end customer protection/guarantee fund so she

is protected when the largest participant/ debtor in the payment system fails.

- Further, in tune with the self-regulated entrepreneurship that the government is encouraging, the system participant should be encouraged to submit a self-certification assessing and disclosing the technical risks it faces at an enterprise level that can balloon into systemic risks.
- The payments terrain therefore should expand and be enabled by regulations to accommodate new kinds of participants in the system.

7.8 Imperatives for Job Creation in India

What is the issue?

- Job creation should be the top priority of central and State governments. They should be judged principally on this parameter

What to do?

- Promote the growth of stronger clusters and networks of small enterprises - Small and micro enterprises are desirable because they create more employment per unit of capital, they enable citizens to create jobs for themselves and earn incomes with less state expenditure, and their growth can be widespread in all regions and in many sectors thereby making growth more inclusive.
- Small and micro enterprises can overcome limitations in accessing markets, in obtaining resources, and in developing their capabilities by organising into effective clusters i.e both geographic and virtual, and also by connecting on technology enabled platforms.
- The quality of clusters and cooperative associations of enterprises in India is much weaker than in other countries where small enterprises have provided the backbone of their faster industrial growth.
- In addition to 'easing conditions for doing business', government policies must promote the formation of strong clusters and networks.
- Promote the growth of a 'life-long learning' system - The content of work is changing dynamically in many industries. Even mass skilling systems to produce large numbers of skilled persons risk turning out skilled yet unemployed people.
- Government assistance should be directed towards enterprises that prove their capabilities to dynamically offer learning and skills that result in sustained employment, rather than payments for numbers of 'skilled' persons produced who may not be employed.
- Develop better social security systems - Enterprises need flexibility to adjust their workforce to remain competitive in a dynamic environment. On the other hand, the government has the responsibility to ensure the social and economic welfare of citizens, and insufficiency of stable jobs is already creating social problems.
- The two requirements - flexibility for enterprises and an adequate safety net for citizens - can be met with better social security systems. The design of the systems should also facilitate citizens to learn new skills so that they remain employable when jobs change.
- Promote the rapid use of technology - They can enable the formation of platforms of enterprises including large ones; they can facilitate the development and delivery of 'just-in-time, needs aligned' learning modules; they can enable micro enterprises to access the formal financial system; and they can also enable delivery of better social security services.
- A 'whole of government' approach is necessary to create jobs - Jobs will emerge from interactions of many drivers in the economy - the growth of enterprises, life-long learning systems and social security, as well as the quality of physical infrastructure and the ease of doing business.

- Therefore job creation policies must be coordinated at the top of the system, at the level of the PMO at the centre and chief ministers in the States.
- Systematic methods must be applied by governments at all levels for consultative policy formulation and implementation. Systematic methods for multi-stakeholder policy formation, such as 'regulatory impact analysis' and the German 'capacity works', will speed up the production of outcomes. They will be the turbo-chargers for India's jobs growth engines.
- National Sample Survey Office data shows little has changed over the years in the nature of employment, as size the of the informal labour market remained significantly high and predominant in the economy overall.
- In 2004-05, the unorganized sector comprised of 87% of the workforce, while in 2011-12 this had changed to 83%
- The growth in organized employment was, however, overwhelmingly informal in nature.
- Most jobs created in the high growth period of the last decade have been informal in nature, even in the organized sector.

7.9 Labour in Informal Sector

Why in news?

- India's informal sector has been affected greatly by demonetisation.

What is an informal sector?

- The informal sector is the part of an economy that is neither taxed, nor monitored by any form of government. Unlike the formal economy, activities of the informal economy are not included in the GDP of a country. The informal sector can be described as a grey market in labour.

Why employing labourers informally is preferred?

- Despite high growth, most sectors chose to employ labour informally because it lowered their overall costs.
- Routing wages and salaries away from cash payments and towards formal channels such as bank accounts, electronic and mobile payments will create a formal culture of employment, but in the process obviously lead to higher costs for firms.

What is the situation of labourers in informal sector?

- Approximately 83% of India's labour force is in informal sector, despite 25 years of modest growth in a seemingly liberalized economy.

- Within the unorganized sector, nearly all the increase was, expectedly, informal in nature.
- Informal employment in the non-agricultural sector increased by 27%.
- This implies that the benefits of Indian economic growth are concentrated among a few, while a growing proportion of the population has been relegated to living as working poor.

What should be done?

- Labor reforms - Studies identified the lack of labor reforms as the main culprit that has kept employment in India low and informal.
- Poor labor laws have often been restraining the Indian manufacturing Industry.
- Lack of labour reforms has generally meant multiple labour legislation that deter hiring of labour.
- Even in those states of India that achieved a high labour reform index, like Gujarat and Andhra Pradesh, the jobs that were created were overwhelmingly informal in nature.
- Therefore labour reforms are not enough.
- There is a need to make serious efforts at facilitating a widespread environment that will develop a formal culture in India's labour markets.

- Demonetisation has the potential to become one such serious policy intervention.
- Demonetisation is forcing employers in the country to reconsider employment contracts. There needs to be a simultaneous push from the formal financial institutions such as banks, payment interfaces such as National Payments Corporation of India to facilitate the adoption of new payment methods.
- Each firm will have to assess its internal fundamentals to evaluate what the short-term costs of going formal entail while achieving operational and dynamic efficiency to remain in business in the long run.

7.10 MSME Policy

What is the present scenario?

- The MSME sector contributes 8 per cent to the GDP, whilst employing more than 80 million people.
- It accounts for 40% of India's manufacturing and 45% of exports
- Growth in micro and small enterprises has been consistent over the past five decades due to a combination of government support, implementation of technological enhancements, and support by the banking sector.
- In 2016, initiatives have been taken by the Centre as well as State governments to improve 'ease of doing business' and to make Micro, Small and Medium Enterprises (MSMEs) more globally competitive – such as
 1. The Udyog Aadhar Memorandum framework for revival and rehabilitation of MSMEs, which enables banks/creditors to identify enterprises in the stage of initial stress and thus take corrective action, and
 2. A Scheme for Promoting Innovation, Rural Industry and Entrepreneurship (ASPIRE), among others.

What should be done?

- The Centre must notify the Micro Small and Medium Enterprises Development (Amendment) Bill, 2015, which seeks to enhance the existing limit for investment in plant and machinery, considering inflation and the dynamic market situation.
- At the moment, there is no integrated approach for the development of MSMEs.
- Therefore, the Centre should come out with one comprehensive policy.
- Several areas of concern relating to the GST law and its implementation, must be addressed.
- It is equally important to provide special incentives for the promotion of export, such as freight subsidy and marketing support.

7.11 US Fed Rate Hike– Impact on India

Why in news?

- The United States Federal Reserve's decided to raise interest rates by a quarter point. It was accompanied by a statement that there will be more and faster increases in 2017.

What is the current global scenario?

- The United States president-elect, Donald Trump, said he won't allow H1B visa holders to replace US workers.
- Crude oil prices touched \$57 a barrel, their highest in a year and a half. And India's factory output shrank 1.9%.
- Indirectly, it will cause a rise in prices all-around, because a lot of goods move on trucks.
- And the IIP dip in October is worrying because the predictions for November are already dire.

What is the impact of Fed reserve decision on India?

- Economy - Dollar outflows could weaken the rupee, and hold the RBI back from cutting interest rates as that could lead to further outflows.
- With crude prices on the rise, a weak rupee will inflate the import bill and put pressure on the government's finances.
- Market - An increase in US Fed rate will be negative for emerging markets in general, India included.
- That is because a rate hike will improve the yields on US government bonds.
- In other words, the bonds will offer a better rate of return than before. This could prompt global money managers to shift a part of their money into US government bonds.
- More often than not, fund managers sell a part of their holdings in emerging market equities and deploy that money in US bonds.
- Companies - For an exporter, a stronger dollar would mean higher earnings in rupee terms.
- But stiff competition and anemic demand in most export markets means that exporters won't have much to cheer about.
- Imported raw material such as copper, aluminum and machinery can turn expensive, potentially squeezing margins of companies dependent on them to make products.
- This may lead to hike in prices of goods such as cars and televisions.
- The rupee's slide can also hurt companies with foreign currency loans as repaying in dollars will get costlier.
- Startups - An increase in US Fed rate will likely lead a shift of part of their capital and even their focus away from markets such as India towards the US.
- The limited liability partners such as large pension funds and insurance companies which used to invest in venture capital and private equity funds may do so now in funds focused at home, than in Asia.
- This may likely to lead to more consolidation, shutdowns, and lowering of valuations of Indian startups.
- Investments - A stronger dollar could negatively impact gold prices.
- Hence, financial planners suggest staying away from the yellow metal for the time being.
- Equities could be volatile in the short term, but investors should stick with their investments in quality companies.
- Higher interest rates in the US will make capital more costly, and affect Indian companies that hope to get funds from there.
- Several agencies, including the Reserve Bank of India, have already reduced their projections of growth for the country's GDP.

7.12 Raising Revenue from Land-Based Financing.

What is Land-based financing?

- Land-based financing is, the government should capture increases in land values that are the result of changes in regulations, provision of infrastructure or population growth and invest it back in the city.
- Indian cities have a history of such practices. Recently, it has been described in a government of India document "Value Capture Policy Framework".

What is the need?

- The implementation of the goods and services tax (GST) will lead to the abolition of entry taxes and other local body taxes.

- This has raised considerable concern among local bodies, especially in Maharashtra, that rely heavily on them for revenue.
- While these taxes are incorporated in the GST and will be devolved to the government of Maharashtra, there are high chances they will not be devolved any further.
- So, in this context, land-based financing mechanisms might be used as an alternative for buoying the revenue of local bodies.

What is Floor Space Index?

- One instrument that this Value Capture Policy Framework mentions is charging for additional floor space index (FSI).
- FSI determines the amount of built-up space allowed to a developer on a plot of land.
- This instrument allows local governments to charge developers for building more than the basic FSI that is free of charge.
- The municipal corporation of Greater Mumbai (MCGM) uses this instrument extensively and there are high possibilities of other cities adopting it in the near future.

What were the issues faced?

- Developers can purchase additional 0.5 FSI and can further purchase 35% fungible compensatory FSI. Both have to be purchased from the MCGM.
- The MCGM splits half the revenue from additional 0.5 FSI charged with the state government.
- Revenue from fungible compensatory FSI, earlier exclusively kept by the MCGM, is now being shared with the state following a notification that the state government.
- This has led to a decline in budget estimates from this source. It is also against the principle of decentralization.
- Further, in the post-GST India, the chances

of state governments taking away the revenue accruing to local bodies are likely to increase.

- Second, revenue from these charges taken together is greater than property-tax collections for the MCGM
- If we include the state government's share, the collections from these charges as a percentage of property tax will be much more.
- One must note that these charges are all on new properties, thus, there is a likelihood of burdening new home buyers if the incidence of these charges is on them.

What should be done?

- While making decisions, governments should not be satisfied with increasing revenue alone, but must examine the impact of such policies on housing markets.
- In wielding these instruments for raising revenue, the government should be mindful of their distortionary effects too.

7.13 Government Measures to Fight Unemployment

What is the threat of automation?

- Around 47% of total employment in the US, around 64 million jobs, have the potential to be automated perhaps within a decade or two. Europe is already facing a crisis of jobs.
- India's pace of job creation pales in comparison with the millions entering the workforce each year and, according to the World Bank, 69% of jobs in India are threatened by automation.
- If automation eliminates a substantial fraction of the jobs that consumers rely on, or if wages are driven so low that very few people have significant discretionary income, then it is difficult to see how a modern mass-market economy could continue to thrive.

What is a Universal Basic Income?

- One way of managing social tensions is for governments to implement a guaranteed minimum income for all citizens.
- Also known as universal basic income (UBI) or a guaranteed basic income, the idea of an income for all has been around for years.
- It was backed by the Left and even libertarian thinkers and is beginning to gain traction again among economists.

What are its advantages?

- Proponents feel that a cash boost – universal basic income mitigates the political problem of creating jobs and it provides disposable income that can be used to pay for goods and services.
- The idea appeals to some conservatives because,
 1. It boosts the economy,
 2. It is easier to administer and
 3. It can potentially downsize the bureaucracy which currently manages a range of welfare programmes.

What are its disadvantages?

- UBI has been criticised and reckoned as unfeasible on two grounds.
 1. It reduces beneficiaries' incentive to work and encourages delinquency.
 2. It would be too expensive to implement in mass societies.

What are the counter arguments?

- Studies have shown additional income does not really reduce the incentive to work. Research shows that people in the US used cash transfers for mostly housing and food costs and that less than 1% of the money was spent on alcohol or drugs.

- Poor families that received up to \$15,000 a year at Dauphin, Canada in 1970s, the hospitalisation rates fell, high-school completion rates increased. And those with full-time jobs did not reduce the number of hours they worked.
- Implementing basic income is, of course, expensive. An unconditional \$10,000 basic income for all adults in the US would cost around \$2 trillion.
- This cost, can be offset to an extent by reducing or eliminating numerous federal and state anti-poverty programmes – but it would still require around \$1 trillion in new revenue.
- Governments will need to tax businesses a lot more, rather put this burden on workers and employees who already pay for existing welfare programs.

Is it feasible for India?

- In India, the costs seem prohibitive and as the country grapples with more foundational issues like ease of doing business, addressing education and skill deficits and kick-starting investments while banks are stuck with bad loans.
- But given high poverty levels and the anger among youth that will inevitably rise, the policymakers will need to seriously consider basic income, or at least some form of it.
- A basic income of Rs. 10,000 per year – about three quarters of the official poverty line – would entail a cost equivalent to 10% of GDP, far more than the 4.2% that the government spends on explicit subsidies.
- He writes that discontinuing some or all of the subsidies while retaining expenditures on health, education and rural and urban development programmes can secure a reasonable basic income for all.
- Research shows poor families in Madhya Pradesh which received unconditional cash transfers ended doing more labour and work.

- There was also a shift from casual wage labour to more self-employed farming and business activity and there was also reduction in migration caused by distress.
- As developed countries increasingly warm to the idea (Finland to implement its version in 2017), policymakers may find it difficult to avoid discussing guaranteed minimum income.

7.14 Regulating Power Subsidies

Why in news?

- An expert panel comprising senior officials from states and industry is studying the ways to reduce leakages in power subsidy.

How power subsidies are given?

- Currently, subsidy is calculated as the difference between energy sold and amount collected.
- State governments give subsidies to power distribution utilities for selling electricity to consumers at less than the procurement cost or for free in some cases.
- However, subsidy payments by states are not made regularly, adding to the financial woes of distribution utilities.
- In fair business practice, state electricity regulators declare subsidy amount at the beginning of every financial year and the state governments are obligated to make quarterly payments to electricity distribution companies.
- But when the subsidy payment is delayed, financial conditions of discoms deteriorate.

Why the Power ministry has constituted an expert committee?

- The expert committee, set up by the ministry to suggest ways to increase electricity demand and consumption, is examining subsidising the target consumers in a manner similar

to what has been done in the case of LPG cylinders for plugging leakages and bringing down the subsidy burden.

- The Niti Aayog and industry experts have been advocating the scheme to lower subsidy, prevent its misuse and strengthening power distribution utilities.
- Under the direct benefit transfer scheme for cooking fuel, LPG cylinders are sold at market rates after which bank accounts of the consumers eligible for subsidy are credited with the amount of subsidy.

7.15 The Fourth Industrial Revolution

What is the current scenario?

- The future of jobs has become a major issue of concern. The world today is at an inflection point due to rapid technological advancement leading to economic, social and political turmoil.
- Unemployment, high cost of healthcare, large-scale immigration leading to cuts in social security have been the key reasons for the reversal of the trend from globalisation to protectionism now being seen in developed countries, most recently in Italy.

What happens along with technological advancement?

- Increasing productivity and efficiencies leading to improved customer experience has encouraged industry to push for technological innovation and find solutions through Robotics, Automation, Internet of Things etc.,
- Due to this reason, the manufacturing and services sectors (traditional job creators) are seeing tremendous transformation at the shop floor today with reduced human interface.

- Technological advancements, like Google's self-driving electric cars and Amazon's Go, threaten to decimate jobs and increase the rich and poor divide further.
- The very technology that has been an enabler for mankind in the past has the potential to destroy the world with economic inequality and climate change challenges.

Where India stands?

- India too, reflects the universal scenario and is in middle of transformation. With 65% of our population being young, India cannot afford to have jobless growth.
- The fresh data released by the Labour Bureau shows a decline of jobs across eight labour intensive sectors in the last quarter of 2015, which is a cause to worry.

What is Fourth Industrial Revolution?

- The technologies of the Fourth Industrial Revolution or Industry 4.0, are leading to redundancy of many low-skilled jobs being replaced by technology and automation.
- A FICCI study, in BRICS countries highlights "job polarisation" with decline in the mid-level jobs and increase in demand for creative, design oriented high tech skills.
- As more jobs are automated, this trend is a cause of worry especially in the Indian context where the official figures state that less than 5 % of our population is vocationally skilled.
- In 2010, FICCI highlighted the impact of the Third Industrial Revolution resulting in emergence of a new category of jobs requiring different skill sets. Such studies need to be integrated into policy.
- The rapid pace of transition from Third Industrial Revolution to Fourth Industrial Revolution is somewhat disconcerting and makes one wonder what the future holds.

What is "The Atlas of Emerging Jobs"?

- To meet the future demand of skilled labour and understand the occupation landscape, the Russian government commissioned a detailed study called 'Atlas of Emerging Jobs.'
- The Atlas offers an opportunity to prepare high school and college students for the employment or entrepreneurship, to understand impact of new technology and specialists to hire and align with academia to develop an integrated curriculum.
- One of the outcomes was setting up of 'Global Education Futures' which engages with various countries to deliberate and identify innovation in education that will prepare children with life skills to deal with the Future. FICCI represents India in this forum.
- It is released by World Economic Forum and provides specific information on the relative magnitude of future trends by industry and geography, and on the expected time horizon for their impact to be felt on job functions, employment levels and skills.
- India with its socio-economic and geographic diversity needs to ensure authentic data, critical for appropriate policy planning.

What is the way ahead?

- We still await an India-centric study to be carried out by the government with the objective to analyse the key drivers that will reshape the landscape of work and identify important work skills needed.
- FICCI along with NASSCOM is working on a "Future of Jobs" series of papers.
- The report will also cover new occupations and fields of specialisation which are likely to emerge in the select sectors.
- FICCI is also publishing a compilation of articles by leading industry captains to share their perspectives and solutions for future of

jobs. With collective efforts of the Industry and active support by government, we too must ensure a brighter future.

8. AGRICULTURE AND RELATED ISSUES

8.1 Indian Jute Industry

What is the history of Jute Mills in India?

- The first jute mill in the country was set up by Scotsman George Acland when he installed spinning machinery brought from Dundee at Rishra in Bengal in 1855.
- That was the Victorian era when the industry here saw its first phase of growth.
- Unlike any other traditional industry, which may have come within the ambit of various technology missions, most jute mills have stayed beyond the pale of any meaningful modernisation.

What are the issues?

- The government continues to dilute mandatory jute bag procurement under the outworn Jute Packaging Mandatory Act (JPMA), 1987, and
- duty-free imports of sacking bags from Bangladesh and Nepal grow at a fast clip.
- As jute factories the machines are of Victorian age that generate much “dust and fibre particles”.
- Trade union leaders are left with no alternative but to draw the attention of the government and the public of high degrees to occurrences of diseases such as tuberculosis and asthma among workers.
- The stubborn refusal by mill owners to invest in modernisation and genuine product diversification has got much to do with the assurance of regular procurement of jute bags by the government’s agencies for packing of food grain and sugar under JPMA.

➤ Therefore the owners of jute mills in the country are afraid of competition from alternative materials and imports.

➤ They want government support, particularly in its procurement of jute bags, in perpetuity.

What are the measures taken by the Government?

- The government provides incentives for replacement of old machines from time to time so that the industry is equipped to cut conversion cost, improve product quality, introduce new jute products in blends with other natural fibres, and make factories healthy work places.
- As for the current financial year, the government has issued the order that 90% of food grain and 20% of sugar will have to be “compulsorily” packed in Jute bags.

8.2 Analysis of Crop Insurance Scheme - PMFBY

What is the performance of previous schemes?

- Before the launch of this initiative, the National Agriculture Insurance Scheme (NAIS) and Modified NAIS (MNAIS) were not serving the farmers’ interests well.
- The sum insured under MNAIS, particularly for risky crops and districts, was meagre.
- It was based either on the quantum of crop loans or on the capping of the sum insured.
- The crop damage assessment based on crop cutting experiments was time-consuming.
- The compensation to farmers often took several months or even more than a year to reach.

What are the changes in PMFBY?

- The government launched a new crop insurance scheme, PM’s FasalBimaYojana (PMFBY), in February 2016, with a view to de-risk agriculture from the uncertainty of nature.

- A technical committee in each district decides the “scale of finance” for the sum insured taking into account all the costs incurred by the farmers.
- The premiums are based on an statistics, without any capping.
- Bids are invited from public and private insurance companies to decide the premiums.
- The premiums so discovered are then subsidised for farmers, who pay only 2% for kharif crops, 1.5% for rabi crops and 5% for annual commercial crops including horticulture crops.
- The rest is paid by the government, divided equally between the Centre and state governments.
- High technology including smartphones, GPS, drones and satellites will be used for accuracy, transparency, and faster assessment.
- Instead of coming down with the increasing scale of coverage, has gone up, sharply, from 9.8% in kharif 2015 to 14.9% in kharif 2016.
- This defies the very logic of insurance that premiums should drop when scale increases.
- It is also found that the states which completed the tendering process early got premium rates ranging from four to eight per cent, but the states which were late got much higher premium rates, touching as high as 20%.
- The litmus test of any insurance scheme lies in how quickly it can assess crop-damages of farmers and how fast it can settle their claims.
- The assessment of the damages is done by eye-inspection. Drones proposed were not employed.
- Under the guidelines, smart phones had to be issued to field officials , but they were not.
- States had to pay premiums to companies in advance, but in many cases they were not.
- As a result, only a miniscule of affected farmers got compensation till now.
- Unless a bold policy is matched by effective implementation, it may not deliver fully.

What is its performance?

- PMFBY insured for a total sum of Rs 1,08,055crores including 35.5 million farmers, which is an increase of almost 193% over kharif 2013 and 40% over kharif 2015.
- Within this the number of non-loanee farmers increased by more than six times.
- The area insured also increased from 16.5 million hectares (mha) in kharif 2013 and 27.2 mha in kharif 2015 to 37.5 mha under PMFBY.
- All these indicators point that the programme is going in the right direction and at the correct pace.
- If this rate is kept, India may have half of its cropped area insured within three to five years.

What are the drawbacks of PMFBY?

- The first problem encountered with this scheme is that the actuarial premium.

8.3 Digitization of Agriculture

What is the condition of agriculture?

- Agriculture accounts for nearly 15% of India’s gross domestic product.
- It constitutes 10% of the overall exports.
- 58% of rural households depend on the sector as their principal means of livelihood.
- And most importantly it feeds 1.2 billion people.

Why there is an increase in demand?

- Driven by a growing population, the sector has seen an increase in demand.

- But, India continues to face bottlenecks in feeding nutritious food to a large percentage of the population, leading to issues around chronic undernourishment and malnutrition.
- To feed the undernourished population, India would require a 3-4% increase in food supply.
- With the population expected to grow even further, the strain on the sector is likely to increase in the coming years.
- Diet diversification - The common trend is that rising incomes lead to diet diversification, i.e., from staple grains towards poultry, fruits, vegetables and dairy products.
- Dairy segment requires significant investments to improve its productivity and to ensure it sustains its growth to meet demand requirements in the coming years.
- Substantial gaps in availability of livestock feed and competition for acreage from food crops pose threats to dairy production.
- Edible oil: Despite India being one of the largest producers of oilseeds in the world, it imports around 55-60% of domestic edible oil consumption requirements.
- This poses a major challenge. High import dependence – uncertainty in supply and potential for significant variability in prices.
- Pulses: A meagre increase in the land under production, added with plateauing yield growth, pose major challenges to increasing pulses production.
- Inability to infuse major improvements in yields could see a shortfall of as much as 11 million tonnes of foodgrains by 2025.
- At the same time, others issues like double cropping, lack of crop rotation, are putting further pressure on fertility and yields.

What should be done?

- Use of technology - Technologies such as automation, decision support system and agriculture robots are being widely adopted in the sector globally.
- Farmers are using the Internet of Things and smart sensors to get access to valuable information like soil moisture, nutrient levels and status of farming equipment.
- The sector is also ripe for the use of big data analytics and artificial intelligence.
- Thus, the logical step for the sector, in India, would be to build an all-inclusive digital platform.
- It will be able to provide end-to-end services for farmers — from selecting crops, optimising plantation timings, seeding and fertilization rates.
- All the data collected during a crop cycle can be compared with other farmers who grow the same crop in similar conditions.
- Lessons learnt from one field can be applied automatically to another to maximize output. Such an approach can help to improve the yield by 20-30%.

What are the advantages?

- Thus, establishing such a digital platform will not only help improve yields and meet the growing demand, but also will be a game changer for the sector.
- Firstly, it will help to track produce from farm to the table. In the process, it will reduce wastage in the value chain and improve food safety.
- Technology can help detect pathogens and allergens before they reach consumers.
- The current wholesale market format suffers from a transparency challenge. The information gap is a barrier to the entry of new players and, hence, increased competition and better price discovery.

- A holistic digital platform can thus help address these and catapult Indian agriculture to the next level.

8.4 Over-Fortification of Food

Why in news?

- Food Safety and Standards Authority of India (FSSAI), a Union Health Ministry body, made public a draft Food Safety and Standards (Fortification of Foods) Regulations 2016 that specifies that all fortified food, manufactured, packed, labelled, handled, distributed and sold, ought to adhere to a minimum set of standards.

What is food fortification?

- The fortification of food is the practice of deliberately increasing the content of an essential micronutrient, ie. vitamins and minerals in a food irrespective of whether the nutrients were originally in the food before processing or not, so as to improve the nutritional quality of the food supply and to provide a public health benefit with minimal risk to health.
- The enrichment is synonymous with fortification and refers to the addition of micronutrients to a food which are lost during processing.

What is the need for standards?

- The World Bank's "Nutrition at a Glance" research report states that India loses over \$12 billion in GDP to vitamin and mineral deficiencies.
- 48% of children under the age of five are stunted, 43 per cent are underweight, 20 per cent are wasted, and more than 1 in 4 infants are born with a low birth-weight.
- According to the proposed regulation, the target foods to be fortified also include rice, maida, vanaspati and atta, which would be enriched — in different combinations — by iron, iodine, zinc, vitamin A, vitamin D, folic acid etc.,

What is Over-fortification?

- Benefits apart, FSSAI's move comes in the wake of concerns of "over-fortification" of food.
- The U.S.-based Nonprofit Environmental Working Group's review of fortified foods currently on the market found that young children are at risk of consuming too much of three nutrients — vitamin A, zinc and niacin.
- In their analysis, the group warned that fortified breakfast cereals were a key source of excessive intake because the amounts calculated for adults, not children.
- Pregnant women and older adults may also be consuming too much vitamin A from other fortified foods.
- Vitamin A, zinc, and niacin are all necessary for health, but excessive doses can cause toxic symptoms.

What are the Ill-effects of excessive intake?

- Routinely ingesting too much vitamin A from liver-supplements can, lead to liver damage, skeletal abnormalities, peeling skin, brittle nails and hair loss.
- In older adults, high vitamin A intake has been linked to hip fractures.
- Taking too much vitamin A during pregnancy can result in developmental abnormalities in the foetus.
- High zinc intake can impair copper absorption and negatively affect red and white blood cells and immune function.
- Niacin is less toxic than vitamin A and zinc, but consuming too much can cause short-term symptoms such as rash, nausea and vomiting.

What is the issue in implementation?

- The permissible range of nutrients that were allowed to be added are well below the body's maximum tolerable limits.

- So even if a person were to eat just over-fortified food all day, it would still be below the required dietary allowance. Therefore over-fortification wouldn't be a problem in India.
- The problem is when the top manufacturers of processed food can be made to comply with the requirement, it is difficult to bring cottage industries or smaller manufacturers under it.
- By implication, trait value payable to the GM technology supplier is a matter to be decided by the PPVFR Authority.
- There is, in fact, a section 26 in the Act relating to the determination of benefit sharing between the supplier of a unique genetic material and the breeder/seed company who has used this in the development of his variety.
- The PPVFR Authority has the powers to stipulate the amount of such benefit sharing, which obviously extends to prescribing a reasonable trait fee payable by the breeder.

8.5 Problems Over Royalty

Why in news?

- A new battlefield is opening up between Monsanto and a section of Indian seed companies that are sub-licencees of the US life sciences giant's proprietary Bollgard-II (BG-II) Bt cotton technology.

What NSAI argues?

- The National Seed Association of India (NSAI), representing domestic seed firms has claimed that the power to fix royalty or 'trait value' payable to the developer of any plant genetic modification (GM) technology lies with the Protection of Plant Varieties & Farmers' Rights (PPVFR) Authority.

What is their rationale?

- The reason for this is that Section 3 of the Indian Patents Act, 1970 specifically excludes from patent-ability any "method of agriculture or horticulture" and "plants and animals in whole or any part thereof other than micro-organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals".
- On the other hand, Section 2 (za) of the PPVFR Act, 2001 clearly defines a plant variety to include "transgenic (i.e. GM) variety".
- GM crops such as Bt cotton, therefore, receive intellectual property protection (IPR) only under the PPVFR Act.

What is Monsanto's argument?

- The above interpretation has, however, been completely rejected by Monsanto.
- It contends that the PPVFR Act, deals only with providing IPR protection to varieties, which refer to "a plant grouping...within a single botanical taxon (i.e. species, family or class)".
- Moreover, "varieties" excludes micro-organisms that cover bacterium such as Bacillus thuringiensis or Bt, whose genes have been incorporated into cotton hybrids.
- A breeder can develop a hybrid or variety containing the Bt genes and seek IPR protection for the same under the PPVFR Act. But the GM trait per se (the technology for inserting the Bt or any other alien genes into the genome of the host plant) is not covered by this Act.
- A modified gene sequence cannot be considered as a plant grouping and the PPVFR Act has no provision conferring the authority the power to protect or regulate GM traits.
- Benefit sharing provisions, too, are triggered only for a registered variety/hybrid that may contain GM traits, but not for the GM traits per se.

- Monsanto has sublicensed its BG-II Bt technology — which was granted an Indian patent in February 2008 – to 49 companies.
- According to Monsanto, trait fees are governed by technology licensing agreements bilaterally executed between it and individual seed companies.

9. SCIENCE AND TECHNOLOGY

9.1 Hurdles for Bharat Net

Why in news?

- Parliamentary standing committee on information technology has expressed displeasure over lack of attention of the Department of Telecommunications (DoT) towards funding of Bharat Net project.

What is Bharat Net project?

- Bharat Net is a project to provide an affordable broadband connectivity of 2 Mbps to 20 Mbps for all households by connecting 2.5 lakh gram panchayats with the optic fibre network
- The entire project is being funded by Universal service Obligation Fund (USOF), which was set up for improving telecom services in rural and remote areas of the country.
- The objective of USOF is to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to the rural India.

What is the current status?

- As of December, less than 25% of the gram panchayats linked with optic fibrenetwork, had active internet connectivity.
- A survey conducted by a think-tank and IIT-Delhi suggested that the use of BharatNet was in single-digits across areas surveyed.
- With the current model of BharatNet,

while the government may be able to have infrastructure laid as per its target, it may not be able to provide active connectivity in hinterland areas.

- The survey also reveals that only one third of them use internet and nearly 70 per cent of non-users do not have any intention to use internet in near future.

What are the problems?

- Considering the fact that NOFN (national optic fibre network) Project is one of the critical pillars in the context of the Digital India mission, the DoT cannot afford any delay in implementation of the NOFN Project for want of funds.
- According to the report, less than 40% of the announced fynds are so far allocated for USOF.
- Universal Access Levy (UAL) is a percentage of the revenue earned by the telecom operators under various licenses
- Since adequate amount of fund is already available under UAL, the DoT should have taken proactive initiatives for allocation of sufficient funds from UAL to USOF schemes.
- The USOF is funded from two streams – 1. budgetary allocation, and 2. UAL.
- The UAL had a balance of app. Rs 43000 crore, and in its original report had recommended transfer of a part of this fund to the USOF.
- But the department is completely silent on the recommendation of the committee to pursue transfer.

9.2 AGNI - 5

Why in news?

- The Agni-5 intermediate range ballistic missile (IRBM) was successfully test-fired recently from APJ Abdul Kalam Island, off the Odisha coast.

What are its specifications?

- It is indigenously-developed surface-to-surface missile.
- Range of more than 5,000 km.
- Can carry a nuclear warhead of more than one tonne.

How it works?

- Ballistic missiles work on the same principle as lobbing a stone at a target.
- The launch starts with the “boost phase”, when the missile is propelled into space.
- Canister is a container that protects the deployed missiles, allowing them to be stored for years
- A powerful gas generation system in the canister rapidly builds up 300 tonnes of pressure, popping the missile out, like a bullet.
- When the missile is 10-15 metres above the canister, the first stage ignites, accelerating the missile upwards. Within 30 seconds, it goes supersonic and, within 90 seconds, when the first stage burns out, the Agni-5 moves upwards at 1.5km/s.
- The second stage, which burns for 80 seconds, takes the missile 170 kilometres above earth; and the third stage, which separates after a minute, carries the payload up to 260 kilometres.
- With all three propulsion stages separated, all that is left is the payload --- the tip of the missile.
- With the “boost phase” over, the missile enters its “ballistic phase”. Like a lobbed stone, it is carried towards the target purely on momentum.
- Ten minutes after launch, it reaches the top of its parabolic path, about 580 kilometres above earth. Then gravity begins pulling it down towards the impact point.

- Course correction is done with small “side-thruster rockets”, to correct any errors that crept in during the launch.
- It comes downwards at about 5-6 kilometres per second.
- As the missile comes in contact with the atmosphere, friction heats its outer surface to 4,000°C, while the payload inside must be maintained at 50°C. This is done by building the re-entry vehicle from a thick block of carbon composite material, compressing it with pressures of up to 1,000 atmospheres.
- At the target end radar-equipped naval warships are pre-positioned to monitor where the missile strikes. There is no scope for error beyond a few hundred metres.

What is its significance?

- It is the fourth successive Agni-5 test launch that has gone to plan since the first launch on April 19, 2012.
- This test was the second in full operational mode, with the missile launched from its storage canister.
- Nuclear deterrence - Its 5,000-kilometre range allows it to deliver a nuclear payload anywhere in China. Therefore it is ready to enter service with the Strategic Forces Command (SFC) as the backbone of India’s China-specific nuclear deterrence.
- Second Strike Capability - For a nation sworn to no-first-use of nuclear weapons, a reliable second-strike capability is an absolute necessity. In the worst-case scenario, the country should have the ability to withstand an enemy nuclear strike on its key locations and launch a successful second strike.
- With this test and the recent commissioning of the indigenously built nuclear submarine INS Arihant, India is inching towards creating a robust and world-class second-strike capability.

What is a nuclear triad?

- A nuclear triad refers to the nuclear weapons delivery via land, air and sea i.e land-based intercontinental ballistic missiles (ICBMs), strategic bombers, and submarine-launched ballistic missiles (SLBMs).
- The purpose of having a three-branched nuclear capability is to significantly reduce the possibility that an enemy could destroy all of a nation's nuclear forces in a first-strike attack and ensures a credible threat of a second strike, and thus increases a nation's nuclear deterrence.

What should be done?

- There is still a long way to go before becoming a competent nuclear triad. e.g The Nirbhay land attack cruise missile meant to carry nuclear warheads failed for the fourth time during a test.
- A credible second-strike capability should also be complemented by a modern, powerful military. The Indian military is in crying need of modernisation across its three arms.
- In a complex global strategic environment, where nations issue nuclear threats based on fake news and global powers threaten to add to their already bulky arsenal, it is important to be recognised as a responsible democracy beyond no-first-strike policy.

9.3 Automated Control Systems in Kudankulam

What are Automated control systems?

- Automatic control in engineering and technology is a wide generic term covering the application of mechanisms to the operation and regulation of processes without continuous direct human intervention.
- Automated control systems are key components needed to ensure the safe operation of the nuclear power plant.
- They include a range of special tools for safety and regular operation mode maintenance.

What is being done currently?

- The automated control systems for two nuclear power plants in Tamil Nadu's Kudankulam will start arriving to India from Russia 2018 onwards, the Rosatom said.
- These systems for the 1,000 MW units – 3 and 4 would be manufactured by a Rosatom affiliate.
- According to a statement by the Russian company an agreement to supply automated control systems was signed between Rosatom - Automated Control Systems and Atomstroyexport — the latter responsible for nuclear power plant construction.
- After that the installation and setup would begin. All the software and hardware tools are to be manufactured at Russian factories. That's the distinguishing aspect of the contract.

Kudankulam Nuclear Power Plant

- India's nuclear power plant operator, Nuclear Power Corporation of India Ltd (NPCIL) is setting up 1,000 MW units at Kudankulam in Tirunelveli district, around 650 km from here.
- At present, the implementation of the Kudankulam Nuclear Power Project (KNPP) involves the construction of six power units equipped with Water-Water Energetic Reactor (VVER)-1000 reactors.
- The road map for cooperation between Russia and India in the sphere of nuclear power provides for the construction of a total of 12 power units in different locations in India, including the site of the KNPP.

9.4 Privacy Debate in Internet of Things

What's the news?

- Investigations into the murder of a man whose body was found in a bathtub has had

American law-enforcement officials thinking outside the box in collecting evidence.

- The victim (Victor Collins), had an Amazon Echo personal assistant device — and the police want Amazon to turn over all recordings from around the time of death.

What is internet of things?

- It is the internet-working of physical devices, vehicles, buildings, and other items—embedded with electronics, software, sensors, actuators, and network connectivity that enable these objects to collect and exchange data.

How does Amazon Echo functions?

- Amazon Echo is an Internet-connected speaker that functions just like the digital assistant on your phone. The technology that powers Amazon Echo is Alexa, which allows you to control the device with your voice.
- The device listens to voices and noise in its range, and sends audio data back to Amazon servers for processing, just like Siri or Google Assistant.

What did the investigators say?

- Investigators in the case argue that since an Amazon Echo is always listening, the device may have picked up conversations that could be crucial to cracking the case.
- Amazon, on the other hand, says that user conversations are only streamed once the device gets the “wake” command or any another customised command.
- The voice-activated device has 7 microphones, and is equipped with sensors to hear users from any direction up to about 20 feet.

What are the major issues?

- So far, Amazon has not shared any recordings with law enforcement — which, police say, amounts to obstruction. The incident brings up two different issues.

- First is the reach that these Internet of Things (or IoT) devices have into our personal lives, opening up avenues that state agencies can demand to use, or other elements can exploit.

- If law enforcement can get Alexa recordings from the Amazon device, what’s to stop them from trying to do so again for another crime?

- The second issue is – While Amazon says that the Alexa device does not stream any audio until it is given the command to wake up, it has not explicitly told law enforcement that it simply does not have the recordings.

- This keeps alive the possibility that Amazon’s personal assistant does indeed stream all audio, even when it has not been given the wake command.

- If this is found to be the case, the company would be in gross violation of user trust.

- Amazon does say that users can log into the dashboard and delete either specific or all recordings — however, it also says that doing so may hamper the effectiveness of the device.

What should be done?

- Irrespective of the final outcome of the Victor Collins case, what is already clear is that there is a strong need for policy and governance in the Internet of Things.

- Common appliances are becoming smart devices that are constantly gathering data — yet, there is no framework yet for how this data is used, and how it should be handled in the event of a crime.

- While handing over of email data by companies to law enforcement is commonplace, it does not happen without precedence and a proper legal order.

- One could argue that data collected by other digital devices should also fall under the same purview.

10. ENVIRONMENT

10.1 Circular Economy

What is Circular Economy?

- A circular economy is an industrial economy that promotes greater resource productivity aiming to reduce waste and avoid pollution by design or intention.
- The material flows in circular economy are of two types
 1. Biological nutrients - designed to reenter the biosphere safely, and
 2. Technical nutrients - which are designed to circulate at high quality in the production system without entering the biosphere as well as being restorative and regenerative by design.
- This is contrast to a Linear Economy which is a 'take, make, dispose' model of production

What are the benefits of Circular Economy?

- It can help transit towards a sustainable future where instead of extraction of natural resources, they are reintegrated, regenerated and reutilised.
- Drawing upon principles from approaches such as cradle-to-cradle and biomimicry, the 'circular economy' emphasises on eliminating the concept of waste, and the use of renewable energy and systems thinking.
- Every component of a product can either be looped into its natural cycle or used as a resource for new products.
- Circular thinking in the food industry can help reduce food waste and capture value in cascading bio-refineries.
- India's substantial organic waste streams can create business opportunities in cosmetics, livestock feed and food additives.

- In consumer electronics, innovation can help keep devices alive longer. The repair and resale market has a vital role to play.
- India's legislation already places responsibility on producers to make options available for consumers to return devices.
- Global ocean biodiversity is severely affected by pollution.
- According to Science Magazine , in India every year approximately 0.60 million tonnes of plastic waste goes into the oceans.
- Plastic tar roads can serve as a readymade landfill for ubiquitous urban trash such as shopping bags and foam packaging.
- For greater traceability along the supply boundaries. chain, companies need to track their waste beyond company

What is the situation in India?

- India produces 62 million tonnes of municipal solid waste (MSW) a year.
- Over 81% is disposed at open dumpsites without treatment.
- Planned efforts can lead to utilisation of about 65% of the waste in producing energy or compost, and 15% to promote the recycling industry, which brings down the dumped waste to under 20%.
- India uses only 38% of its total fly ash production for cement manufacturing, brick manufacturing, agriculture and so on.
- With continued reliance on coal, India will have 225 million metric tonnes of fly ash available for re-use by 2032.
- At present, there are 8.7 million end of life vehicles, which will be 22 million by 2025. It is estimated that one sharing car on the road can take up to 20 privately owned vehicles off the road.

- Recycling activities in India are dominated by the informal sector and recycling quotas are not yet fully exploited.
- Secondary raw material usage in the manufacturing industries remains low (20-30 per cent) and much needs to be done in closing the material loop.
- Special programmes to empower stakeholders, especially women, in the waste management and recycling business will help reinforce the social and professional appreciation of the informal sector.
- Including waste management in school curricula and leveraging the interest of various stakeholders in policy conscripting will help achieve the objectives.

What are the challenges?

- Trade barriers in reverse logistic chains,
- Consumer preferences,
- Mis-labelling,
- Acquiring of new skills, systems thinking and modelling to guide behavioural changes among stakeholders are some of the major challenges.
- Correct labelling of product lifespan will help promote a repair culture and oblige manufacturers to share the recycling costs of products with planned obsolescence.
- Unless we put price on the negative externalities and change perceptions regarding the true value of natural resources, achieving a circular economy state may be difficult.

What should be done?

- The financing, education, industry collaboration platforms and true valuation of processes will enable conditions that will help India transition to a more regenerative and restorative economy.
- India's e-waste rules and plastic waste management rules should focus on extended producer responsibility to promote the integration of environmental costs.
- Waste streams have to be documented and critical points identified for capacity development and technical re-alignment of the informal sector which contributes positively towards growth.
- E.g Because of the presence of the informal sector, almost 60% of plastic is being recycled in India compared to a mere 6.5% being recycled in the US.
- Elephants have no use for roads and trains. And yet, at 10-20 deaths on tracks per year, over 100 elephants were killed by trains in the first decade of this century, according to Elephant Task Force.
- The last five months have witnessed at least 15 elephant casualties on tracks.
- On every occasion, locomotive drivers are accused of flouting the speed limit of 40-50 km/h in elephant corridors.

10.2 Human Animal Conflict – Elephants & Railway Tracks

What is the issue?

Is the speed limit an effective solution?

- Of the 88 identified elephant corridors in India, 40 have national highways running through them, 21 have railway tracks, and 18 have both.
- It makes little economic sense to impose restrictions on speed or night traffic along such lengths of India's ever-expanding linear network.
- Also, accidents can happen even at low speeds — due to human errors and the unpredictability of animal movement.

- Speed restrictions are feasible only in short, singular stretches, such as the 11 km killer stretch near Berhampore in Odisha, the 8 km stretch that cuts through Jharkhand's Palamu, or the 4 km death trap in the Palghat Gap.
- It is not an option on steep gradients, such as Assam's Karbi Anglong, where trains have to accelerate to climb the slope.
- These considerations should help offset the cost burden of route realignment or constructing underpasses.
- Given their size, elephants do not venture into narrow, low passages.
- They don't climb vibrating ramps to cross a highway or railway track either. Funnelling the animals towards designated passageways is also critical because herds stick to their traditional routes.

What is an effective solution?

- Speed restrictions must be guided by real-time inputs from forest staff on elephant movements to help locomotive drivers.
- Similar protocol put in place in Rajaji National Park helped avert elephant casualties for 12 long years.
- But where a track or road cuts across several wildlife corridors over a longer stretch, the real solution is realignment.
- E.g, It makes little sense to restrict the speed of trains along the 80 km Alipurduar-Siliguri stretch, when there is a less vulnerable alignment available through Falakata.
- Where realignment of a longer stretch is not possible we need elevated tracks with underpasses for safe, unhindered animal movement.
- This requires major investment, and all forest routes across the country can't be realigned or elevated overnight.
- But the Railways needs to prioritise, and consider the aspects of speed and safety while planning new projects or expanding existing ones.
- It isn't only about conservation either. Collisions with elephants almost invariably damage and derail locomotives, lead to temporary suspensions of service, impose costs on the exchequer and may lead to major passenger casualties.
- But since 2010, we have evidenced in India that adequately-built underpasses allowed regular herd movement.
- When the NH 152 was ready in 2010, it offered two 30-foot high and 100-foot wide passageways, which elephant herds started using within months.
- The solutions don't have to be necessarily expensive. In many areas, it may be also possible to funnel elephants with fencing to designated level-crossing zones where they will not struggle to climb up or down the tracks.
- But site-specific, scientific remedies need to be decided upon, and implemented irrespective of the cost.
- 12th century Western Chalukya king Somesvara III in his Manasollasa, wrote that the healthiest forests were the ones in which elephants thrived, and it was the sovereign's duty to protect those forests.
- Eight centuries later it is still relevant.

11. INTERNAL SECURITY

11.1 Role of Social Media

What is the issue?

- The connected world and the internet services dramatically lowered entry barriers.

- This environment, where everyone is a publisher, presents both new opportunities and complex challenges for society.
- In our country, there are roughly 240 million smartphone users and over 500 million feature phone users.
- The Internet and Mobile Association of India estimates about 370 million internet users in our country — most of them are on mobile internet.
- The line between prejudice and politics is becoming extremely blurred.

How this can be tackled?

How social media is misused?

- Society and its conflicts manifest themselves in what has come to be known as fake news.
- Internet aids the rapid distribution of fake news.
- That is not the malaise of the internet or social media platforms, however.
- It is the actors i.e competing political and other special interests which are producers of such content.
- India has reflected these conflicts and contestations for ages and not new.
- In August 2012, photos and cross-border propaganda material was misused and spread, sparking panic and migration among people from the north-eastern region residing in Bangalore..
- Rumours were authenticated as news and these were published widely.
- The spirit of the internet runs counter to all of this — it is about bringing people together, discovering ideas, unlocking opportunities and forming communities.
- All that these events requires a counter-speech — a strong denial of the rumours and real-time reassurance to the affected people by the state, the community, news-persons and the media.
- The lasting and most powerful antidote to rumours, fake news and hate speech is more speech.
- Recently, the Bangalore police actively used social media platforms to quell malicious rumours and fake news when the Cauvery river water-sharing verdict was announced by the Supreme Court.
- The current climate also underscores the importance of independent fact-checkers. Therefore the emergence of fact-checking websites in India is a positive development.
- It will help nurture a culture of fact-checking and an atmosphere where each individual will be more rigorous in their assessment when engaging with different types of information on different media and diverse platforms.

What is the present trend of debate?

- There is universal recognition that political polarisation is getting sharper.
- Elections feel like a matter of life and death instead of a worthy democratic value and tradition.
- Consensus-building is becoming increasingly difficult and compromise is projected as weakness.
- Ultimately we all have to think and reflect upon our own behaviour.
- We have to decide whether we want to build a world where a human being's life is solitary, poor, brutish and inward looking or a world where we push the boundaries of openness, debate and integrity.

11.2 Good Policing

Why in news?

- The person acquitted after 14 years because there was no evidence against him in the Lajpat Nagar blast case brings out the importance of the findings of the People's Tribunal on Acquitted Innocents in terrorism cases.

What are the findings?

- The tribunal, led by former Delhi High Court Chief Justice AP Shah, has talked about the "special nature of wrongfulness in terror prosecutions" and has suggested the government make erring police persons "criminally liable for the malicious acts done by them in their official capacity".
- The tribunal went on to say that in testimony after testimony, it heard of illegal and wrongful detention, torture in police custody, forced confessions extracted under duress, long incarceration, repeated denial of bail, to be acquitted finally years after their arrest.
- This, in a nutshell, reveals the face of our criminal justice system.
- Repeated lapses in the delivery of criminal justice in matters of terrorism charges are not to be seen in isolation because they have prejudices and social conflicts built into them.
- It is not surprising that the Muslims form a large proportion of undertrials in India, according to the data of the National Crimes Record Bureau.
- The Scheduled Castes and Tribes do not fall far behind them.
- All the data in existence show that it is some communities' constant neglect and marginalisation which lead to prejudices being formed against them, an undertaking in which the moral majority plays no small part and co-opts the police in the exercise.

What should be done?

- The question of good policing is relevant mostly to the way it deals with ordinary crime in urban areas, or it affords protection to women and the elderly.
- But things such as detention without trial, extra-judicial murders, custodial killings, arrests without evidence, etc have much more to do with matters other than policing.
- In those cases the police are compelled to act because of social pressures; orders, sometimes illegal, from the government; class, caste or community divisions in society; plain party politics, etc.
- In those cases a police officer, even of high levels, is virtually powerless though he might be conscientious.
- Hence improvement in criminal justice means much more than uplifting the police system and the magistracy.
- It means a gamut of changes that lead to empowerment and a redistribution of assets and social power.

11.3 Mathematical Models to Fight Terror

Why in news?

- After India's Surgical Strike and subsequent retaliatory attacks India took a closer look at new age tools developed by researchers whose computational analyses of extremist organisations have become powerful weapons in the fight against terrorism.

How security agencies are responding to terrorism?

- Security agencies across the world currently employ more than 40 math models to stay a step ahead of terrorists.
- Jonathan Farley, professor at the University of the West Indies, uses the lattice theory

— a branch of mathematics that deals with ordered sets — to ascertain the probability of how many members need to be ‘taken out’ before a terrorist cell can be disrupted.

- This, in turn, helps to determine the structure of an ‘ideal’ terrorist cell which is most resistant to the loss of its members.
- Mathematicians Stephen Trench and Hannah Fry of the University College, London base their model on the Hawkes process (used in earthquake prediction programmes): It assumes that terror strikes occur in clusters and an attack is likely to be followed soon after by others — like after-shocks following an earthquake.
- Neil Johnson of Miami University and his team mix maths and social media to predict terrorist attacks. Their algorithm detects signs of imminent terror strikes by monitoring social media posts used by radical groups.
- Prof. Johnson says social media serves as a recruitment platform for extremists and even seemingly innocuous online conversations on extremist topics could portend violent terrorist acts.

Which kind of math model India employs?

- Temporal-Probabilistic Rule System developed by Venkatramana Subrahmanian, University of Maryland, which not only predicts terror attacks but also suggests counter strategies.
- The programme is based on two frameworks: the Stochastic Opponent Modeling Agents (SOMA) and the multiplayer game theory models.
- Both are built on data reflecting hundreds of variables relevant to terror groups in South Asia like the LeT, JeM, and SIMI.
- These variables describe both the environment in which a group operates as well as the intensity of the group’s actions.

- SOMA identifies environment conditions favourable for the group’s actions and predicts the probability ‘P’ that it will carry out action ‘A’ with intensity ‘I’, when some condition is true in the environment.

Whether the use of math models belongs to recent times?

- During World War II, the US Navy neutralised Germany’s U-boat threat by asking chess grandmaster Reuben Fine to analyse the probability of U-boats surfacing at certain points in the sea.
- And Britain recruited several chess masters to devise a mathematical model to crack the German Enigma code, which virtually won the war for the Allies.
- More than six decades later, the free world is again turning to mathematical models and the science of probability to help fight a new enemy: Terrorism.

11.4 Terrorist Attacks in Europe

Why in news?

- The Russian Ambassador to Turkey was assassinated by a lone gunman at an exhibition, in Ankara in Turkey.

Are such attacks isolated incidents?

- The Turkey attack was stated to be in reprisal for Russia’s direct involvement in the Syrian offensive against its rebels.
- But it would be naive to dismiss the Ambassador’s killing is merely because of that.
- The attack reflects growing exasperation by a wide spectrum of forces in West Asia at gross external interference.
- Therefore, the daring murder cannot be viewed in isolation and has to be necessarily linked to the overall problem of terrorism across the globe.

- In another attack, a man drove a speeding tractor-trailer through crowds of shoppers at a market in central Berlin, which killed 12 and injured many more.
- Yet another attack by a lone shooter on a Muslim prayer hall in the Swiss city of Zurich— almost simultaneous to the Ankara incident — strengthen the impression that lone wolf attacks have become the order of the day
- Since losing its strongholds in Syria and Iraq, the IS is under immense pressure to look outward and make its presence felt through spectacular actions.
- The relatively freely available ingress into Europe of cadres escaping from West Asia — especially the liberal admittance to Germany — combined with the absence of internal borders facilitates them.

Why terrorists adopted new tactics?

- What is the position of Turkey?***
- Turkish President RecepTayyipErdogan is in a dilemma - whether to align himself with the extremist elements propping up the jihadist in order to broaden his eroding support base in the country, or to be moderate for the sake of conserving his fragile ties with the West.
- What are the consequences?***
- Two leaders in particular are going to face the heat.
 - Mr. Putin, who already has a dubious record in Chechnya, may have to face the impact of a dangerous, direct coalescence between rebels there and terror groups in at least three countries, viz., Turkey, Syria and Iraq.
 - And equally endangered is German Chancellor Angela Merkel, who is about to face a tough general election to decide whether she will get a fourth term.
 - Her decision to allow in a million refugees from West Asia has already led to strong protests from the extreme right in the country, which is linking the recent Berlin terror attack to her benevolence in providing sanctuary to far too many refugees.
 - If she has to win the nation's mandate one more time, she may have to be seen as acting tough, which could again be easily distorted as targeting Islam.
 - Recent attacks make law enforcement officials believe that terror groups have altered their tactics.
 - Encouraging individual sympathisers to act spontaneously on their own.
 - Endorsing the modus operandi of using a motor vehicle to drive into crowds in order to create all round panic and cause as many casualties as possible. e.g Attack in Nice on Bastille Day.
 - The explanation is that this kind of attack is easier in terms of logistics and effortlessly evades the police eye.
 - No great preparation is required. One needs to just hire a truck on payment by presenting false identification.
- What is the way ahead?***
- In sum, we face the prospect of increased terrorist activity in multiple regions of the world, and especially in Europe.
 - This is an eye-opener that has to be kept in mind while organising security arrangements on important national celebration days.
 - Intensified electronic and physical surveillance of suspected groups or individuals can help only a little.
 - Therefore, there will be more pressure on law enforcement to somehow produce quick results even if it means using methods which may not exactly pass the test of law or ethics.

PRELIM BITS CONSOLIDATION

12. History

A tribute to Saint Ramanuja

- A tower of 216 feet high panchaloha statue of 10th century Bhakthi Saint Ramanuja on the outskirts of Hyderabad is planned to mark the 1000th birth Anniversary of Saint Ramanuja.
- It is called as “Statue of Equality” and being conceptualized as the tribute to his philosophy.
- It will be the second highest sitting statue in the world if the under construction statue of Sardar Patel is not considered. At present, the tallest statue is the Great Buddha in Thailand at 302 ft.

Madan Mohan Malaviya

- He was the founder of Benares Hindu University.
- He formed the Hindu University Society and one of the leaders of AkhilBharatiya Hindu Mahasabha, a far-right Hindu Nationalist party.
- He served as Congress President four times— in 1909 (Lahore), in 1918 (Delhi), in 1930 (Delhi) and in 1932 (Calcutta).
- Malayiva left the Congress to form the Congress Nationalist Party in 1934.
- His Newspapers: The Abhyudaya (1907) – Hindi Weekly, The Leader of Allahabad - English-language daily (1909).
- He has been awarded highest civilian award in our country, Bharat Ratna in 2014.

13. Art and Culture

UNESCO’s list of Intangible Cultural Heritage in India

- Yoga has now been inscribed as an element in the UNESCO’s list of Intangible Cultural Heritage of humanity.
- It was added during the 11th session of the Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage held in Addis Ababa, Ethiopia.
- Yoga has become the 11th intangible cultural heritage that has been listed from India so far with UNESCO.

Previous Intangible cultural Heritage

1. Ramlila- the traditional performance of the Ramayana
 2. Kutiyattam, Sanskrit theatre
 3. Tradition of Vedic Chanting
 4. Ramman, religious festival and ritual theatre of the Garhwal Himalayas.
 5. Chhau dance
 6. Kalbelia folk dance and songs of Rajasthan
 7. Mudi yettu, ritual theatre and dance drama of Kerala.
 8. The Buddhist chanting of Ladakh
 9. Sankirtana –the ritual singing, drumming, and dancing of Manipur
 10. The traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab
- Other heritage lists added during the session includes,
 1. Cuba – Rumba Dance.
 2. Belgium – Beer.

3. Portugal – Black Pottery.
4. Ukraine’s Dnipropetrovsk region – Cossack song.

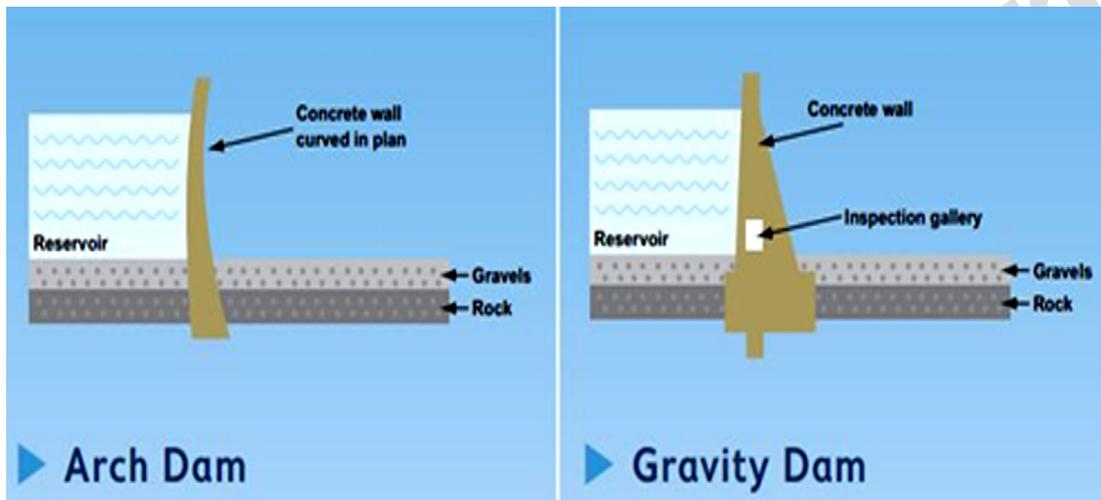
14. Geography

Cyclone “Nada”

- Originated in Bay of Bengal and travelled over TN, Rayalaseema and south interior Karnataka and stepped out into Arabian sea.
- The Lakhwar Dam
- The Lakhwar Dam is a gravity dam currently under construction on the Yamuna River near the town of Lakhwar in Dehradun district of Uttarakhand, India.

- Arch dams are curved in the shape of an arch, with the top of the arch pointing back into the water. An arch is a strong shape for resisting the pushing force of the water behind the dam. Arch dams are usually constructed in narrow, steep sided valleys.

- A gravity dam is made from concrete or masonry, or sometimes both. By using concrete, the weight of the dam is actually able to resist the horizontal thrust of water pushing against it. Gravity essentially holds the dam down to the ground, stopping water from toppling it over.



- New trade route between Kolkata-Mizoram via Myanmar
- A deep water port built in Sittwe in Myanmar provide viable route for trade link between Kolkata and Mizoram states.
- Sittwe is the capital of Rakhine State in the south west Myanmar. It is located at the mouth of the Kaladan River, which flows into Mizoram in North Eastern India.
- The construction of this sittwe port is part of India’s integrated development project being funded by interest free loans.

River Bridge over Ganga

- An agreement has been signed between the Asian Development Bank (ADB) and Government of India for constructing a new bridge across river Ganga.
- The River Bridge is mainly to improve connectivity between North and South Bihar.

Underwater Volcanic eruption

- Scientists recorded live video of underwater volcanic eruption which had erupted in 2015 and twice in the past.
- Axial Seamount is the world’s most active

and studied underwater volcano, located at 300 miles from Oregon coast, rising from Juan de Fuca Ridge.

- Axial Seamount is caused by the movement of two tectonic plates in the region that are

gradually spreading apart i.e. divergent plate margin.

- The convergent plate margin is located between the North American Plate and Juan de Fuca Plate.



Fig. The plate margins of West coast of USA

Low Level Jets (LLJ) and Atmospheric Rivers (AR)

- LLJ is a region of relatively strong winds in the lower part of the atmosphere. Specifically, it often refers to a southerly wind maximum in the boundary layer, common over the Plains states at night during the warm season.
- It is formed during a cold night after a warm day where dry winds prevail, as these conditions lead to temperature inversion with high pressure at the ground level and low pressure above.
- This sharp pressure gradient results in formation of winds with great speed at lower levels.
- In the North American Great Plains a southerly low-level jet helps fuel overnight thunderstorm activity.
- Both AR and LLJ affect highly sensitive regions such as Antarctic and Arctic.

- Rainfall from Low Level Jets (LLJ) occurs mostly in summer whereas Atmospheric Rivers produce rainfall in winters too.

- Atmospheric Rivers is mostly an extra tropical phenomenon, whereas LLJ can occur in both tropical and extra tropical regions.

Discovery of Jet streams in Earth's Core

- The European Space Agency's Swarm mission features a trio of satellites which measure and separate the different magnetic signals which stem from the Earth's core, mantle, crust, oceans, ionosphere and magnetosphere.
- Swarm satellites provide the X-ray image of the core and with the help of X-ray, Scientist discovered a jet stream within the Earth's molten iron core.
- The information about the magnetic field from the core found the position of the jet

stream aligns with a boundary between two different regions in the core.

- The jet is likely to be caused by liquid in the core moving towards this boundary from both sides, which are squeezed out sideways.

Jet Streams in the Atmosphere

- Jet streams are relatively narrow bands of strong wind in the upper levels of the atmosphere. Jet streams follow the boundaries between hot and cold air.
- The main jet streams are located near the altitude of the tropopause and are westerly winds (flowing west to east).
- Origin of Jet streams – It is mainly due to
 1. Atmospheric heating by solar radiation that produces the large scale Polar, Ferrel, and Hadley circulation cells.
 2. The action of the Coriolis force acting on moving masses which is caused by the planet's rotation on its axis.

Northern Lights

- The Northern Lights is also known as the Aurora Borealis.
- After the Winter Solstice, a mass of energetic particles from the Sun smashed into the magnetic field around Earth stirring up a display of northern lights.
- The northern lights are stretched across British Columbia, Alberta, Saskatchewan, Manitoba, Nunavut and Northwest Territories, areas that often fall under the auroral oval.
- The collision of solar particles and pressure into our planet's magnetosphere accelerates particles trapped in the space around Earth at altitudes of 100 to 400 kilometers, where they excite oxygen and nitrogen molecules and release photons of light.
- The Northern lights was captured by NASA Satellite "The Suomi NPP".

New excavation in Ladakh

- An ancient Camping site used by the pre historic man datable to 8500 BCE has been found at an altitude of about 4200 metres near Saser La pass.
- Saser La Pass located in the Karakoram Range in Himalayas.

15. Social Issues

First Transgender School

- India is set to inaugurate its first residential transgender school in Kochi on December 30.

16. Government schemes and policies

BunkarMitra

- BunkarMitra is a Helpline for handholding of Handloom weavers.
- The professional queries of weavers will be answered by the experts in the field using this helpline.
- It is single point of contact where weavers can seek solutions for their technical issues/problems.

Project Biotoilet in Railways

- Anaerobic digestion process is applied for the digestion of human excreta in the bio-toilets that are being fitted in passenger coaches of Indian Railways.
- The human waste is collected from toilet and is acted upon by a colony of anaerobic bacteria that convert human waste mainly into water and bio-gases (mainly Methane CH₄ & Carbon Dioxide CO₂).
- The gases escape into the atmosphere and wastewater is discharged after disinfection onto the track.

WIFEX Experiment

- The Winter Fog experiment (WIFEX) is being organised by the Ministry of Earth Science.
- The main scientific objective of this project is to study the characteristics and variability of fog events and associated dynamics, thermodynamics and fog microphysics, with the aim to achieve better understanding of fog life cycle and ultimately improve capability in fog prediction.
- It helps reduce its adverse impact on aviation, transportation and economy, and loss of human life due to accidents.

Antyodaya Express

- The Antyodaya Express was announced during the Railway Budget during this year.
- It is an Indian Railways train for the unreserved class.
- For the unreserved passengers, Railway budget introduced two types of new trains and coaches, Antyodaya Express and Deen Dayalu coaches.

SwachhSwasthSarvatra

- It is an inter-ministerial joint initiative between the Ministry of Drinking Water and Sanitation and the Ministry of Health and Family Welfare.
- It leverages achievements of two complementary programmes – Swachh Bharat Mission (SBM) and Kayakalp – of the Ministry of Drinking Water and Sanitation and Ministry of Health and Family & Welfare, respectively.
- The three key components of Swachh Swasth Sarvatra are:
 - Community Health Centres (CHCs) in ODF blocks supported to achieve Kayakalp certification
 - Gram Panchayat of Kayakalp Primary Health Centres (PHCs) prioritized to become ODF

- Training in WASH (Water, Sanitation and Hygiene) of CHC/PHC nominees
- It is a much needed programme to achieve open defecation free India by 2019.

7th World Ayurveda Congress (WAC)

- The 7th World Ayurveda Congress (WAC) will be held from 2nd – 4th December, 2016 at Science City, Kolkata.
- The mega event is being organized by the World Ayurveda Foundation with support of Ministry of AYUSH, and the State Government of West Bengal.

Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)

- The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) was announced in 2003.
- The objective of the scheme is correcting regional imbalances in the availability of affordable/ reliable tertiary healthcare services and also to augment facilities for quality medical education in the country.
- It is aimed at setting up of AIIMS like Institutions and upgradation of Government Medical College Institutions.

Pradhan Mantri Surakshit Matritva Abhiyan

- The Scheme has been launched by the Ministry of Health & Family Welfare (MoHFW), Government of India.
- The objective is to provide fixed-day, assured, comprehensive and quality antenatal care universally to all pregnant women on the 9th of every month.
- One of the critical components of the Abhiyan is identification and follow-up of high risk pregnancies.
- These services will be provided at the health facility/ outreach at identified public health facilities in both urban and rural areas.

17. Government's New Initiatives to Push Digital Payments

Vittiya Saksharata Abhiyan

- It is launched by Union HRD Ministry.
- 'Vittiya Saksharata Abhiyan' to encourage, create awareness and motivate all people around them to use a digitally enabled cashless economic system for transfer of fund.

BHIM app to push e-Transactions

- BHIM- Bharat Interface for Money, a digital app on the Unified Payment Interface (UPI).
- UPI, a platform created by the National Payments Corporation (NPCI) to facilitate faster and smoother digital payments.
- It acts as an aggregator for all UPI-based offerings of banks. Till date, each bank has come out with its own mobile banking app and gone live on UPI. But now, the NPCI through BHIM created a front-end app.

Lucky GrahakYojana and Digi-DhanVyaparYojana

- **NITI Aayog** announces the launch of the schemes Lucky GrahakYojana and the Digi-DhanVyaparYojana.
- It is to give cash awards to consumers and merchants who utilize digital payment instruments for personal consumption expenditures.
- The primary aim of these schemes is to incentivize digital transactions so that electronic payments are adopted by all sections of the society, especially the poor and the middle class.

18. International Institutions in news

United Nations Commission on International Trade Law (UNCITRAL)

- The United Nations Commission on International Trade Law (UNCITRAL),

established in 1966, is a subsidiary body of the General Assembly of the United Nations.

- Their general mandate is to further the progressive harmonization and unification of the law of international trade.
- Participants include the member States of the Commission and other, as well as interested international inter-governmental organizations (IGO's) and NGOs.
- UNCITRAL is different from World Trade Organisation (WTO).
- The WTO deals with trade policy issues, such as trade liberalization, abolition of trade barriers, unfair trade practices or other similar issues usually related to public law.
- But the UNCITRAL deals with the laws applicable to private parties in international transactions. As a consequence, UNCITRAL is not involved with "state-to-state" issues such as anti-dumping, countervailing duties, or import quotas.

International Gas Union

- It is a global association aimed at promoting the technical and economic progress of the gas industry.
- This non-profit organisation organizes the World Gas Conference (WGC) every three years. The forthcoming World Gas Conference is to be held in Washington, USA in 2018.
- This organisation registered in Vevey, Switzerland with its secretariat currently located in Oslo, Norway.

Observer status to ICC

- The United Nations (UN) General Assembly has granted Observer Status to the International Chamber of Commerce (ICC).
- ICC is the world's largest business organisation and it is the first time that a business organisation has been admitted as an Observer at the UN General Assembly. The list of UN observers is highly restricted

and features principally intergovernmental organisations.

- This paves way for the business will have direct voice in the UN system for the first time.

New Secretary General of United Nation

- Antonio Guterres, a Portuguese is the 9th secretary-General of the United Nations.
- He was the United Nations High Commissioner for Refugees from 2005 to 2015.
- As a push for gender parity in the United Nations, he named three women to key leadership roles.

OPEC and Non-OPEC members' pact

- OPEC and non-OPEC producers reached their first deal since 2001 to curtail oil output jointly and ease a global glut after more than two years of low prices.
- Nigeria and Libya were exempt from the deal due to production-denting civil strife.
- The Organization of the Petroleum Exporting Countries (OPEC) was founded in Baghdad, Iraq.
- Five countries namely Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia and Venezuela were the Founder Members of the Organization.
- These countries were later joined by Qatar (1961), Indonesia (1962), Libya (1962), the United Arab Emirates (1967), Algeria (1969), Nigeria (1971), Ecuador (1973), Gabon (1975) and Angola (2007).
- Currently, the Organization has a total of 13 Member Countries.

19. National Institutions in News

Vanjeevan

- Vanjeevan is the National Resource Centre for Tribal Livelihood issues and located in Bhubaneswar, Odisha.

- It is the joint collaboration with UNDP and National Scheduled Tribes Finance and Development Corporation (NSTFDC).

- Vanjeevan will be a programme to identify the problems in livelihood issues in select districts of six states having low HDI of tribal people in the first phase.

Indian Institute of Skills

- The first ever "Indian Institute of Skills" will be set up in Kanpur, Uttar Pradesh. It is launched with the vision of making India the Skill Capital of the World
- It is setup under the collaboration of Union Ministry of Skill Development and Entrepreneurship in partnership with the Institute of Technical Education, Singapore.
- Prime Minister will also inaugurate the KaushalPradarshini (Skill Exhibition) for the youth of Uttar Pradesh. The Exhibition would showcase state-of-the-art vocational training practices across different sectors.

Central Silk Technological Research Institute (CSTRI)

- India plans to attain self-reliance in raw silk and plans to bring imports to zero level by 2020, with majority of imports being mainly from China.
- CSTRI is a statutory body established in the year 1983 by the Central Silk Board, Ministry of Textiles.
- CSTRI is the only research institute in the country dedicated to the Research & Developmental activities related to silk technology.

New regulation by FSSAI

- Food Safety and Security Authority of India (FSSAI) has released new regulation prohibiting the use of calcium carbide for ripening fruits.

- FSSAI is responsible for making regulations and setting standards, import of food, notifying labs and coordination to ensure cooperation between FSSAI and States.
- The implementation of the Food Safety and Standards Act, 2006 falls within the remit of the State/UT Governments and it is discharged through the Commissioner of Food Safety, Designated Officers and Food Safety Officers.
- The drawing of samples, getting them tested and launching prosecution, etc. is the mandate of the State/UT Governments.
- Regular surveillance, monitoring and inspection are undertaken by State/UT Governments to check compliance with the provisions of the Food Safety and Standards Act, 2006.
- However, separate information in respect of inspection of food packaging industries carried out by State/UT authorities is not maintained centrally by FSSAI.
- The fourth series Khanjar exercises are scheduled to be held in February-March 2017.
- India and Kyrgyzstan are jointly constructing the Kyrgyz-Indian Mountain Training Centre in the city of Balykchi, Kyrgyzstan.

Pratikal 1

- The military exercise named “Pratikal-1” will be on training Nepali forces in dealing with international terror forces.
- This is the first ever joint military exercise between Nepal and China.

Ekuverin

- It is a joint military exercise between the Indian Army and the Maldives National Defence force.
- The seventh edition of this military exercise will be held in Maldives.
- The previous edition (6th) of the exercise was held in India at Trivandrum, Kerala.

Auroville Foundation

- Dr. Karan Singh, an eminent scholar, Rajya Sabha Member and a senior leader of Indian National Congress has been re-nominated as the Chairperson of the Governing Board of Auroville Foundation.
- It is an autonomous body under the Ministry of Human Resource Development.
- It is recognized as an international living experiment in human unity, endorsed by the UNESCO and supported by the Indian government.

Mission Raftaar

- ‘Mission Raftaar’ was launched by Ministry of Railways.
- It is launched with the objective of doubling of average speed of freight trains, and increasing the average speed of all non-suburban passenger trains by 25 kilometre per hour (kmph) in next 5 years.

Operation Talash

- A massive search operation ‘Op Talash’ was launched for search of the missing Indian Air Force (IAF) AN-32 aircraft.
- It went missing on a routine sortie from IAF Station Tambaram to Port Blair in August this year, approximately 150 nm East of Chennai.

20. National and International Missions and Exercises

India- Kyrgyztan

- The Khanjar is the series of annual India-Kyrgyztan Military exercise.

21. Economy

Watal panel on Digital Payments

- The Committee on Digital Payments headed by former finance secretary Ratan P Watal to set a road map for digital payments to grow substantially over the next three years.
- The objective of digital initiative is to halve the cash to GDP ratio to 6% over the next 3 years.
- Two main recommendations of the Committee
 1. To create a new payments regulator.
 2. To make Board for Regulation and Supervision of Payment and Settlement Systems (BPSS) within RBI more independent which it today lacks by being a sub-committee of the Central Board of RBI.

Panel to study security risk in digital payments

- The Committee of Chief Ministers tasked with promoting digital payments decided to setup a panel to examine security concerns.
- The committee will be constituted by Ministry of Electronics and IT (MeitY) and headed by IT secretary Aruna Sundararajan and Telecom Secretary Deepak.

Cyprus removed from notified jurisdictional area

- Cyprus is an island country in the Eastern Mediterranean.
- India and Cyprus had entered into a tax treaty in 1994 and are obliged to exchange information.
- In 2013, the Finance Ministry notified Cyprus as a non-cooperative jurisdiction following failed discussions to secure the desired level of cooperation.
- Cyprus is a popular tax haven and it was the only country to have been blacklisted by India as a non-cooperative jurisdiction.

- A country, with which India lacks effective exchange of information, is declared a notified jurisdictional area

New scheme to push cashless economy

- Telecom Regulatory Authority of India (TRAI) has recommended a new scheme to provide free 100 MB to rural smartphone users to boost up cashless economy.
- It is different from zero rating models that provide free access to data services for subscribers of particular internet service providers for accessing specific content.
- The cost of implementation will be met from Universal Service Obligation Fund (USOF).
- Universal Service Obligation Fund
 - The fund is created under the department of telecommunication, Ministry of communication and information technology to provide universal access to telecom services.
 - It focuses on providing telecom services to rural and remote areas at affordable and reasonable prices.
 - It is a non-lapsable fund i.e., unspent amount under target financial year does not lapse, accrues for next years' spending.
 - All credits to the fund require parliamentary approval.

Panel on changing financial year

- A government-appointed panel, headed by former chief economic adviser Shankar Acharya, has recommended changing the financial year from the current April to March to the calendar year.

New RBI Deputy Governor

- The Centre has appointed Viral V Acharya as a Deputy Governor of the Reserve Bank of India, for a three-year term.

- As in-charge of monetary policy, he will become a part of the six-member interest-rate setting monetary policy committee.

Short Term Cooperative Rural Credit (Refinance) Fund

- Government has set up a fund namely Short Term Cooperative Rural Credit (Refinance)

Fund in National Bank for Agriculture & Rural Development (NABARD).

- This fund is for providing concessional short term refinance to Cooperative Banks.
- The fund is made available to NABARD from out of the shortfall in priority sector lending targets by commercial banks.

Priority sector lending targets

Categories	Domestic SCBs with 20 branches and above
Total Priority Sector	40 percent of Adjusted Net Bank Credit (ANBC) or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher
Agriculture	18 percent of ANBC
Micro Enterprises	7.5 percent of ANBC
Advances to Weaker Sections	10 percent of ANBC

22. Environment

Etroplus Canarensis

- The Central Institute of Brackish Water Aquaculture, a research centre at Chennai have breed *Etroplus Canarensis*, a breed of fish.
- The fish is endemic to the Western Ghats.
- This fish was assessed as Endangered by International Union of Conservation because of its distribution in only two locations such as Kumaradhara and Nethravathi Rivers in Karnataka.
- It feeds on Mosquito larvae and breeds after monsoon.
- It can tolerate low salinity range and survive in low saline brackish water ecosystem.

Eco-Sensitive Zone around Sanjay Gandhi National Park

- Environment Ministry issues final notification on Eco-Sensitive Zone in Sanjay Gandhi National Park, Mumbai.

- The objective of notifying Eco-Sensitive Zones is to create a buffer as further protection around Protected Areas (PAs) such as National Parks and Wildlife sanctuaries.
- The extent (of ESZ) varies at different places taking into consideration its geographical area. No construction will take place in this (ESZ) area.
- The Eco-Sensitive Zone has a minimum extent of 100 metres and maximum extent of up to 4 km from the Park boundary.
- Sanjay Gandhi National Park is spread over three districts – Palgar, Thane and Mumbai Suburb and falls within the Tehsils of Kurla, Borivalli and Thane.
- Any new construction within ESZ shall be in accordance with Bombay Municipal Bye-Laws.

Water Day

- Union Minister for Water Resources, River Development and Ganga Rejuvenation Uma Bharti has announced Dr.Ambedkar's birthday 14th April to be celebrated as Water Day.

Seaweed *Sargassum Zhangii*

- The seaweed *sargassum zhangii* is found growing along the rocky shores from Tamilnadu.
- This is the first reported case of the seaweed outside China.
- The seaweed is endemic to China.
- Its presence in Indian Shores far away from China highlights its invasive potential.

Oil Spilling

- A chemically Modified Sawdust to act as non-toxic 'super-sponge' for cleaning oil spills in the city has been discovered.
- The sawdust has exceptionally oil-attracting and buoyant properties.
- Beyond absorbing oil, the saw dust also enhances another approach to combating oil spills called controlled burns.
- The controlled burn using sawdust is called in-situ burning. It can significantly reduce the amount of oil in water and minimize its adverse environmental effects.

Nano Particles to remove Arsenic in Water

- Arsenic in drinking water is the largest natural mass poisoning, as it is a slow poison, causing numerous adverse health effects, including cancer and genetic anomalies.
- The technology developed to remove arsenic contamination consists of nanostructured iron oxyhydroxide.
- The iron oxyhydroxides has large adsorption capacity to remove arsenic in two dissolved forms.

DISANET

- DISANET is an alternative system for communication during disasters, developed by IIT Madras.

- It allows basic services such as voice, text and video communications to be exchanged among National Disaster Management Authority (NDMA), master operation centre and rescue workers.

Ethanol blending

- Ethanol blending is the practice of blending petrol with ethanol.
- It is mainly done to reduce vehicle exhaust emissions and also to reduce the import burden on account of crude petroleum.
- In India, ethanol is mainly derived by sugarcane molasses.

Using Deer antlers in Ayurveda drugs

- Kerala's State Board for Wildlife sought Union Government's approval for using deer antlers in Ayurveda drugs.
- Antlers are the extensions of the skull of the deer.
- The Wildlife (Protection) Act, 1972, has included antler in the definition of wildlife trophy.
- Deer antlers are mass of solid bone and are shed on regular intervals and regrow again. Whereas in all other bovidae's the horns are permanent and are not shed.
- During the growing of the antlers a soft shining skin covers the antlers and is known as "velvet". This skin is highly sensitive as it is fed by many blood vessels and can be injured easily.
- When the antlers grow to take their final shape a ring of bone forms on the base and cuts off the supply of blood to the velvet thus leading to its shedding.

DEER VARIETIES IN INDIA

The Swamp Deer or the Barasingha

- IUCN status - Vulnerable.

- State animal of Madhya Pradesh and Uttar Pradesh.
- In India there are two races of this deer found: one is the swamp inhabiting and is found mainly in the Terai region of U.P., small numbers in the Hastinapur Wildlife Sanctuary. The other race is the Hard Ground one found only in Madhya Pradesh.
- This deer is also called the Dancing Deer due to its delicate style of walking.
- In India this deer is found only in Manipur in Eastern India and that also on the Shore of Loktak Lake.

Black carbon and Brown Carbon

The Sambhar

- IUCN status - Vulnerable.
- State animal of Odisha.
- Sambhar is the largest of all deer species found in the Indian Sub-continent.

The Chital or the Spotted Deer

- IUCN status - Least Concern.
- State animal of Telangana.
- It is very widely distributed throughout India.

The Hog Deer

- IUCN status - Endangered.
- Hog deer as named has a peculiar habit of running like a hog with its head down.
- It inhabits the alluvial grasslands of the Terai forest right from Corbett to the forests of Assam.

The Muntjac or the Barking Deer

- IUCN status - Least Concern.
- It is found all over India.

Hangul or the Kashmir Stag

- IUCN status - Critically Endangered.
- State animal of Jammu & Kashmir.
- It is found in the valley of Kashmir especially in areas above Srinagar called Dachigam.

The Thamin or Brow-Antlered Deer

- IUCN status - Endangered.
- State animal of Manipur.

- Black Carbon is inorganic in nature consisting of soot particles that directly come out of combustion processes.
- Brown Carbon or organic carbon comes from complex organic reactions in the airborne atmospheric particles. It includes tar, products from biomass burning, compounds given off by vegetation.
- Both Black carbon and Brown carbon absorb sunlight and thus in turn warm the atmosphere.

Amur Falcons

- The Amur Falcon is a small raptor of the falcon family.
- It breeds in south eastern Siberia and northern China and migrates over the Arabian Sea to South Africa during winter.
- It passes through Nagaland state and Central India. Nagaland was declared as Falcon Capital of the World.
- Doyang Lake in Nagaland was declared as ecotourism spot due to presence of Amur falcon during its migration.

23. Science and Technology

Space

New Satellites launch by ISRO

- ISRO will launch 83 satellites in one go in January 2017.
- Out of them, 80 satellites weighing 500 kg belongs to five foreign countries -- Israel, Kazakhstan, Netherlands, Switzerland and the US.

- The rest of the three Indian satellites are Cartosat-2 series weighing 730 kg as primary payload, INS-1A and INS-1B, total weighing 30 kg.
- It will be the first of its kind mission in ISRO's space history.
- Previously, ISRO in June 2016 had successfully launched 20 satellites, including its earth observation Cartosat-2 series, in a single mission on board PSLV-C34.
- Chandrayaan-2, India's second mission to the Moon, is a totally indigenous mission comprising of Orbiter, Lander and Rover.
- The Orbiter carrying six payloads will orbit around the Moon in 100 km lunar orbit. The payloads will collect scientific information on lunar topography, mineralogy, elemental abundance, lunar exosphere and signatures of hydroxyl and water-ice.

Long Range Surface to Air Missile

- Indian Space Research Organisation (ISRO) is planning to send two Nano satellites into space namely INS-1A & INS-1B, weighing 10 kg each including payload mass of 5 kg.
- These Nano satellites are meant for technology demonstration.
- Mission life is expected to be six months to one year.
- Long Range Surface to Air Missile (LR-SAM) has been jointly developed by DRDO and Israel to be launched from ship.
- Barak 8 also known as LR-SAM is an Indian-Israeli surface-to-air missile (SAM).
- LR-SAM has been developed to counter a wide variety of airborne threats, like anti-ship missiles, aircraft, helicopters, UAVs drones and supersonic missiles.

GSAT - 19

- Indian Space Research Organisation (ISRO) is working towards putting into orbit an indigenous communication satellite GSAT-19, weighing 3.3 tonne and carrying Ka/ Ku band payloads.
- The satellite is planned to carry Ka and Ku band payload along with a Geostationary Radiation Spectrometer (GRASP) payload to monitor and study the nature of the charged particles and influence of space radiation on spacecraft and electronic components.
- GSAT-19 is planned as the payload for the first developmental flight of the indigenous GSLV-Mk III-D1 Launcher.
- The spacecraft was launched by NASA in 1997 to make an up-close study of the planet Saturn, its rings and moons.
- It made a probe to edge of the planet's main rings since arrived in Saturn in 2004.
- Cassini has made numerous dramatic discoveries, including a global ocean within Enceladus and liquid methane seas on Titan.

Cassini Spacecraft

Mars one

- Mars one is a project that aims to establish human settlements on mars.
- It is a British-Dutch project aiming to send an unmanned mission to mars by 2018.

The Chandrayaan-2

- ISRO is working towards the launch of Chandrayaan-2 during the first quarter of 2018.
- ISRO successfully launched the 1,235 kg RESOURCESAT-2A Satellite using PSLV C-36.
- This is the thirty seventh consecutively successful mission of PSLV.

RESOURCE SAT-2A

- The satellite will aid in natural resource management.
- The data sent by RESOURCESAT-2A will be useful for agricultural applications like crop area and crop production estimation, drought monitoring, soil mapping, cropping system analysis and farm advisories generation.

All ISRO Missions of 2016

- PSLV-C36 Resource SAT-2A - It is the 38th flight of ISRO's Polar Satellite Launch Vehicle (PSLV) and is intended to continue the remote sensing data services to global users.
- GSAT-18 - Communication satellite launched successfully by the European Ariane 5 VA-231 launch Vehicle.
- PSLV SCATSAT-1 - carrying eight satellites into two different orbits meant for ocean and weather related studies. The launch was ISRO's longest mission spread over two hours and fifteen minutes.
- GSLV F05 - ISRO conducts the first successful operational flight of its heavy-lift GSLV rocket with an indigenous cryogenic engine.
- INSAT-3DR - weather satellite, the heaviest launched from India, into space and into an "orbit very close to the intended one".
- PSLV-C34 - Setting a record, ISRO successfully launches 20 satellites, including its earth observation Cartosat-2 series, in a single mission on board its workhorse PSLV-C34.
- Reusable Launch Vehicle-Technology Demonstrator (RLV-TD) - ISRO successfully flight tested India's first winged body aerospace vehicle operating in hypersonic flight regime.
- IRNSS-1G - India completed its landmark mission for a regional navigational system on par with US-based GPS. The launch was the seventh and last in the constellation of satellites that make up the system.

Kounotori

- It is the Cargo Ship launched to International Space Station by Japan.
- The Cargo Ship carries a space junk collector to International Space Station for pulling the space debris out of orbit around the Earth.

Jupiter's string of pearls

- NASA's solar-powered Juno spacecraft has captured the seventh of Jupiter's eight features forming a 'string of pearls' – massive counter clockwise rotating storms that appear as white ovals in the gas giant planet's southern hemisphere.

Trojan Asteroids

- Trojans asteroids are constant companions to planets in our solar system as they orbit the Sun.
- They constantly lead or follow in the same orbit, they will never collide with their companion planet.
- The OSIRIS-REx is a spacecraft launched by NASA.
- It is currently on a seven-year journey to study and bring a sample of primitive asteroid to understand the formation of our solar system.
- There are six planets in our solar system with known Trojan asteroids – Jupiter, Neptune, Mars, Venus, Uranus and Earth.
- To date, scientists have only discovered one Earth Trojan asteroid – 2010 TK7.

Agni – 1P

- India is developing a brand new short-range, ballistic missile called the Agni-1P, replacing the old Prithvi and Agni-1 missiles.
- The Agni-1P will have a range of 300-700 kilometres, which matches the ranges of the Prithvi and Agni-1.

- The Agni-1P will be a two-stage, solid propellant missile.
- India's ballistic missile programme began in the early 1980s, under the Integrated Guided Missile Development Programme (IGMDP).
- Prithvi Missile is the first missile built under IGMDP which is single-stage, liquid fuelled with a range of 150-250 Kilometres.
- The lunar probe Chang'e-4 will conduct in situ and roving detection and relay communications at earth-moon L2 point (Lagrange point).

China's Remote Sensing Satellite

- China plans to form a BeiDou network consisting of 35 satellites for global navigation services by 2020.
- BeiDou is expected to compete with America's Global Positioning system.

Galileo Navigation System

- EU launches its own Galileo navigation system designed to provide commercial and government customers with more precise location data than GPS.
- Galileo is owned by the European Commission, the executive arm of the European Union, based in Brussels.
- The system is also designed to boost search-and-rescue operations by cutting the amount of time it takes to pinpoint distress beacons used by people lost at sea or in the wilderness.

Findings of Curiosity rover

- NASA's Curiosity rover to Mars has revealed purple rocks on the surface of Red planet.
- The photos of purple rock were taken near the base of Mount Sharp, one of the Mars's tallest summits.
- The purple coloration is caused by the presence of hematite, an iron oxide commonly used on Earth as a pigment.
- The hematite as it is typically formed in aqueous environment, throws light that water may have once present in the area.

Tansat

- China launched a satellite named "TanSat" for monitoring global carbon dioxide to understand climate change.
- The satellite was sent into a sun synchronous orbit about 700 kms above the earth and will monitor the concentration, distribution and flow of carbon dioxide (CO₂) in the atmosphere.
- China is the third country after Japan and the US to monitor greenhouse gases through its own satellite.

Technosphere

- A new study has coined a term called Earth's "Technosphere", which comprises of all the structures that humans have constructed to keep them alive on the planet, now weighs an enormous 30 trillion tonnes.

China plans to become first country to land on dark side of the moon

- China will launch a lunar probe in 2018 to achieve the world's first soft landing on the far side of the moon.
- China has already landed a rover on the moon in the past but now wants to explore the dark side of the lunar surface.

Others

Advanced Heavy Water Reactor (AHWR)

- AHWR designed by Baba Atomic Research Centre (BARC) is intended to serve as a technology demonstrator for a range of technologies for Thorium utilization.
- It is a thorium fuel based vertical pressure tube type, heavy water moderated and boiling light water cooled reactor.

- The development of advanced safety systems will also provide benefits for post Fukushima related improvements for other operating / under-construction reactors.
- Its main applications include paints and coatings, lubricants, oil and functional fluids, capacitors and batteries, solar cells, inks and 3D printer's materials and films.

25. Science

New Super heavy element in the atomic table

- The Super heavy element 117 has been officially named "tennessine".
- The International Union of Pure and Applied Chemistry (IUPAC) which validates the existence of newly discovered elements and approves their official names – gave its final approval to the name "tennessine".
- The specific spelling of tennessine was chosen because the new element is classified as a halogen.

Japanese Encephalitis

- Japanese encephalitis (JE) is a disease spread through mosquito bites.
- The Japanese encephalitis virus (JEV) is a virus from the family Flaviviridae.
- JE is a serious disease that may cause death.
- The Vaccine for Japanese Encephalitis has been added to universal immunization program in 2014.

Graphene

- The TFIR Centre for Interdisciplinary Sciences (TCIS), Hyderabad and Central Electrochemical Research Institute, Karaikudi has developed a material which is both water repellent (Hydrophobic) and oil repellent (Oil Phobic).
- The material is made from fluorinated graphene.
- Graphene which is a stacked array of carbon atoms in a honey comb lattice structure.
- Graphene is stronger than steel and good conductor of heat and electricity.

Roundworm and flatworm

- International Centre for Genetic Engineering and Biotechnology (ICGEB), Delhi, has discovered new potential drugs for parasites such as Nematode (roundworm) and Platyhelminths (flatworm).
- Roundworms are common in warm tropical countries and a commonly found parasitic on humans.
- Disease caused by flatworm includes Shistosomiasis, which is the second most devastating of all human diseases caused by parasites, surpassed only by malaria.
- The Shistosomiasis is prevalent in Latin America and in the Far East.

Nano Crush technique

- It is a new stenting technique for treating abnormal narrowing of branching arteries.
- The Nano Crush technique is an easy and effective method of stenting the branching arteries, as it does not affect the blood flow in any of the branches and offers a long-term solution.

1. Evaluating potential of drugs
2. Disease Management

First Biological Pacemaker

- Scientists have developed the first functional pacemaker cells from human stem cells which can regulate heart beats with electrical impulses that trigger the contraction of the heart.
- Biological Vs Electronic Pacemaker – Biological pacemaker overcomes the drawbacks such as lack of hormonal responsiveness and the inability to adapt to changes in heart size in pediatric patients.

- Human pluripotent stem cells can be coaxed in 21 days to develop into pacemaker cells.
- Pluripotent stem cells have the potential to differentiate into more than 200 different cell types that make up every tissue and organ in the body.
- Historically, time was based on the mean rotation of the Earth relative to celestial bodies and the second was defined in this reference frame.
- The invention of atomic clocks defined a much more precise “atomic” timescale and a second that is independent of Earth’s rotation.

Types of stem cells

- Totipotent cells- It can form all the cell types in a body, plus the extraembryonic, or placental, cells. E.g.: Embryonic cells within the first couple of cell divisions after fertilization are the only cells that are totipotent.
- Pluripotent cells- It can give rise to all of the cell types that make up the body. E.g. embryonic stem cells are considered pluripotent.
- Multipotent cells- It can develop into more than one cell type, but are more limited than pluripotent cells; adult stem cells and cord blood stem cells are considered multipotent.
- Measurements show that the Earth, on average, runs slow compared to atomic time, at about 1.5 to 2 milliseconds per day.
- Scientists have determined that after roughly 500 to 750 days, the difference between Earth rotation time and atomic time would be about one second.
- The International Earth Rotation and Reference Systems Service (IERS) is the organisation which monitors the difference in the two time scales and calls for leap seconds to be inserted in or removed from UTC when necessary to keep them within 0.9 seconds of each other.

Hafnium carbide

- Scientists identify world’s most heat resistant material, Hafnium carbide.
- It can withstand temperatures of nearly 4,000 degrees Celsius.
- Tantalum carbide (TaC) and hafnium carbide (HfC) are refractory ceramics, meaning they are extraordinarily resistant to heat.
- It will pave way for improved heat resistant shielding for hypersonic space vehicles and spacecraft.

Leap Second

- On December 31, 2016, a “leap second” will be added to the world’s clocks, Coordinated Universal Time (UTC), at 23 hours, 59 minutes and 59 seconds
- UTC is computed in Paris, France, at the International Bureau of Weights and Measures.

26. Index and Reports

Global Education Monitoring Report, 2016

- Global Education Monitoring Report is published by UNESCO.
- The report has claimed that India will be half a century late in achieving its universal education goals.
- The Report also states that India will achieve
 - Universal primary education by 2050.
 - Universal lower secondary education (Grades VI - VIII in case of India) by 2060.
 - Universal upper secondary education (Grades IX-XII in case of India) by 2085.
- It has not involved the Ministry of Human Resource Development in this exercise.

Global Gender Gap Report 2016

- The Global Gender Gap Report 2016 is published by World Economic Forum.
- India ranks at 87th in respect of Global Gender Gap Index (GGI) among 144 countries of the World. In 2015, India was being ranked at 108th.
- According to the Human Development Report 2015 brought out by UNDP, India ranked 130 on the Gender Inequality Index among 155 countries.
- The Index benchmarks national gender gaps on economic, education, health and political criteria, and provides country rankings that allow for effective comparisons across regions and income groups.

CORSIA

- The International Air Transport Association (IATA) has expressed hope that India will join the Carbon Offsetting and Reporting Scheme for International Aviation, popularly called CORSIA.
- CORSIA is a market-based measure for international aviation to measure carbon emissions.

Global Terrorism Index

- The index is released by the Institute for Economics & Peace, a think tank based in Sydney, Australia.
- India was ranked seventh in the list of countries most impacted by terrorism in 2015.
- India is one of the six Asian Countries ranked in the top ten nations.

Performance on Health Outcomes index

- A 'Performance on Health Outcomes' index is introduced by NITI Aayog along with Ministry of Health and Family Welfare.
- The exercise involves the participation of partners including technical assistance from the World Bank.
- It is meant to capture the annual incremental improvements in health sector by States, rather than focus on historical achievements and to nudge states to improve health outcomes and data collection.

