JULY 2019

Monthly Current Affairs for ESE 2020
&
Practice Questions
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1. NATIONAL AND INTERNATIONAL ISSUES

1.1 Social development

One Stop Centre (OSC) scheme

The Government of India is implementing One Stop Centre (OSC) scheme for setting up One Stop Centre since 1st April 2015 to support women affected by violence.

Key facts:

- It is popularly known as Sakhi
- Ministry of Women and Child Development (MWCD) has formulated this Centrally Sponsored Scheme.
- It is a sub – scheme of Umbrella Scheme for National Mission for Empowerment of women.
- The OSC will support all women including girls below 18 years of age affected by violence, irrespective of caste, class, religion, region, sexual orientation or marital status.
- The Scheme will be funded through Nirbhaya Fund.

Van Dhan Yojana

A workshop to flag the 100 days’ plan for implementation of the Van Dhan Scheme was organised by TRIFED of Ministry of Tribal Affairs in New Delhi.

About Van Dhan Vikas Kendras initiative:

- The initiative aims to promote MFPs-centric livelihood development of tribal gatherers and artisans.
● It mainstreams the tribal community by promoting primary level value addition to MFP at grassroots level.
● Through this initiative, the share of tribals in the value chain of Non-Timber Forest Produce is expected to rise from the present 20% to around 60%.
● The scheme will be implemented through Ministry of Tribal Affairs as Nodal Department at the Central Level and TRIFED as Nodal Agency at the National Level.
● At State level, the State Nodal Agency for MFPs and the District collectors are envisaged to play a pivot role in scheme implementation at grassroot level.
● Locally the Kendras are proposed to be managed by a Managing Committee (an SHG) consisting of representatives of Van Dhan SHGs in the cluster.

**EQUIP project**
The Higher Education Department of the Union Ministry of Human Resource Development has finalized and released a 5-year Vision Plan titled as Education Quality Upgradation and Inclusion Programme (EQUIP).

**About the project:**
- EQUIP was crafted by ten committees led by experts within the government.
- EQUIP is meant to bridge the gap between policy and implementation.
- The project is made to bring transformation in the higher education system in the upcoming 5 years.

**Goals set for Higher Education Sector by Expert Group are:**
- Doubling Gross Enrolment Ratio (GER).
- Resolving geographically and socially skewed access to higher education institutions.
- Promoting India as a global study destination.
- Upgrade Quality of Education to global standards.
- Positioning minimum 50 Indian institutions among Top-1000 Global Universities.
- Promote Research & Innovation ecosystems for positioning India in Top-3 countries globally in matters of knowledge creation.
- Introducing governance reforms in higher education for well-administered campuses.
- Accreditation of all institutions for assurance of quality.
- Doubling employability of students passing out of higher education.
- Harnessing education technology for expanding reach and improving pedagogy.
- Achieving a quantum increase in investment in higher education.

**One nation-one ration card scheme**
The Union Ministry of Consumer Affairs, Food and Public Distribution asserted that the Government is going to implement "One nation-one ration card" scheme in the whole country by 30th June, 2020.

**Key Facts:**
- It is the final stage for integrating the entire public distribution system with the Depots online system (DOS) to ensure seamless working of the National Food Security Act.
● Food Corporation of India (FCI) will provide an internet gateway for integrating DOS with State governments within 4 months. After that, within 2 months, States will integrate their Warehouse Management Systems with DOS.
● All the States have been given one more year to use point of sale (PoS) machines in the ration shops and implement the scheme.
● The migrants would only be eligible for the subsidies supported by the Centre, which include rice sold at Rs. 3/kg and wheat at Rs. 2/kg.

**Scheme for Trans-disciplinary Research for India’s Developing Economy (STRIDE)**
The University Grants Commission (UGC) has approved a new scheme - ‘Scheme for Trans-disciplinary Research for India’s Developing Economy’ (STRIDE).

**About STRIDE:**
● STRIDE will provide support to research projects that are socially relevant, locally need-based, nationally important and globally significant.
● STRIDE shall support research capacity building as well as basic, applied and transformational action research that can contribute to national priorities with focus on inclusive human development.
● STRIDE shall support creation, development and integration of new ideas, concepts and practices for public good and strengthening civil society.

**STRIDE components:**
1. Component-1 will endeavor to identify the motivated young talents with research and innovation aptitude in universities and colleges.
2. Component-2 will be mainly to enhance problem solving skills with help of social innovation and action research.
3. Component-3 will fund high impact research projects in the identified thrust areas in humanities and human sciences through national network of eminent scientists from leading institutions.

**Surrogacy (Regulation) Bill, 2019**
The Cabinet has approved the introduction of Surrogacy (Regulation) Bill, 2019 that aims to prohibit commercial surrogacy in India.

**Key features of the bill:**
● The Bill proposes to regulate surrogacy in India by establishing a National Surrogacy Board at the central level and state surrogacy boards and appropriate authorities in the state and Union Territories.
● The purpose of the Bill is to ensure effective regulation of surrogacy, prohibit commercial surrogacy, and allow ethical surrogacy.
● While commercial surrogacy will be prohibited, including sale and purchase of human embryos and gametes, ethical surrogacy for needy couples will be allowed on fulfillment of stipulated conditions.
It will also prevent exploitation of surrogate mothers and children born through surrogacy.

Integrated Teacher Education Programme (ITEP)

The Central Government has introduced a 4-year Integrated Teacher Education Programme (ITEP) for pre-service training, to offer graduation with certain specializations built into it. The Central Government has taken several initiatives to improve the quality of education:
1. The Central Government has launched an Integrated Scheme for School Education – Samagra Shiksha, from 2018-19 which subsumes the erstwhile centrally sponsored schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).

2. In order to focus on quality education, the Central rules to the Right of Children to Free and Compulsory Education (RTE) Act have been amended to include reference on class-wise, subject-wise Learning Outcomes for all elementary classes.

3. The National Council of Educational Research and Training (NCERT) conducted a National Achievement Survey, under which learning outcomes of students were evaluated, through a District level sampling and gaps were identified.

4. Government of India has decided to participate in the Programme for International Students Assessment (PISA) to be conducted by the Organization for Economic Cooperation and Development (OECD) in 2021.

5. Approval has been given for conducting a Census based audit called Shagunotsav of all government and government aided schools in all States and UTs.

6. In 2019-20 approval has been given for conducting a School Based Assessment (SBA) of all elementary stage students, to evaluate learning outcomes.

7. MHRD has designed a 70 indicators based matrix Performance Grading Index (PGI) to grade the States and UTs.

8. To collect timely and accurate data, an Educational Management Information System called UDISE+ (UDISE plus) has been launched in 2018-19.

**Study in India programme**

To facilitate Internationalization of Higher Education in India, a Programme viz. ‘Study in India’ is under implementation.

**Objectives:**

- To make India a preferred education destination/hub for foreign students.
- To improve the soft power of India with a focus on the neighbouring countries and use it as a tool in diplomacy.
- To rapidly increase the inflow of inbound International Students in India through systematic brand-building, marketing, social media and digital marketing campaigns.
- To increase India’s market share of global education exports.
- Improvement in overall quality of higher education.
- To reduce the export-import imbalance in the number of international students.
- Growth in India’s global market share of International students
- To increase in global ranking of India etc.

**Key facts:**

- The programme focuses on attracting International students from select 30 plus countries across South-East Asia, Middle East and Africa.
The programme envisages participation of select reputed Indian institutes/universities by way of offering seats for the International students at affordable rates, along with fee waivers to meritorious foreign students ranging from 100% to 25%.

A centralised admission web-portal (https://studyinindia.gov.in) acts as a single window for the admission of foreign students.

Global Multidimensional Poverty Index - 2019
Global Multidimensional Poverty Index - 2019 (MPI), released by the United Nation Development Programme (UNDP) has revealed that there are vast inequalities across countries, and among the poorer segments of societies.

Key Findings:
- As per Index 1.3 billion people in the world are still multidimensionally poor.
- Level of inequality and poverty is very high in Sub-Saharan Africa and South Asia.
- Bangladesh, Cambodia, Democratic Republic of Congo, Ethiopia, Haiti, India, Nigeria, Pakistan, Peru and Vietnam (10 selected countries have a combined population of around 2 billion people) have shown significant progress towards achieving Sustainable Development Goal 1 i.e ending poverty in all its forms, everywhere.
- In African countries such as Burkina Faso, Chad, Ethiopia, Niger and South Sudan 90% or more children (under the age of 10) are multidimensionally poor.

India related findings:
- India lifted 271 million people out of poverty between 2006 and 2016, recording the fastest reductions in the multidimensional poverty index values during the period with strong improvements in areas such as assets, cooking fuel, sanitation and nutrition.
- Jharkhand has reduced the incidence of poverty at a faster pace than other regions.
- MPI reduced from 640 million people (55.1%) in 2005-2006 to 369 million people (27.9%) in 2015-16.

About MPI:
- The MPI captures both the incidence and intensity of poverty and tracks 101 countries on deprivations across ten indicators in health, education, and standard of living.
- Index is developed by the Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP).
- Multidimensionally poor means that poverty is defined not simply by income, but by a number of indicators, including poor health, poor quality of work and the threat of violence.

Pradhan Mantri Shram Yogi Maan-Dhan Yojana

About PM-SYM:
- Government of India in February 2019 launched the Pradhan Mantri Shram Yogi Maandhan (PM-SYM).
- It is a voluntary and contributory pension Scheme, for the benefit of unorganised workers, as per the eligibility.
● The scheme assures minimum monthly pension of Rs. 3000/- to the beneficiaries after attaining the age of 60 years.
● Under the Scheme, the subscriber is required to pay the prescribed monthly contribution amount and the Central Government provides the equal matching contribution.
● The scheme is implemented through Life Insurance Corporation of India.
● The unorganised sector workers, with income of less than Rs 15,000 per month and who belong to the entry age group of 18-40 years, will be eligible for the scheme.
● Those workers should not be covered under New Pension Scheme (NPS), Employees’ State Insurance Corporation (ESIC) scheme or Employees’ Provident Fund Organisation (EPFO).

The Aadhaar and Other Laws (Amendment) Bill, 2019

Recently the Parliament has passed the Aadhaar and Other Laws (Amendment) Bill, 2019 which allows voluntary use of Aadhaar as proof of identity.

Highlights:
● The existing Aadhar act provides for the use of Aadhaar number as proof of identity of a person, subject to authentication.
● The Bill replaces this provision to state that an individual may voluntarily use his Aadhaar number to establish his identity, by authentication or offline verification.
● Authentication involves submitting the Aadhaar number, and their biometric or demographic information to the Central Identities Data Repository for verification.

Salient Features of the Bill

1. Offline verification of Aadhaar number holder:
   ● The Bill additionally allows ‘offline verification’ of an individual’s identity, without authentication, through modes specified by the Unique Identification Authority of India (UIDAI) by regulations.
   ● During offline verification, the agency must (i) obtain the consent of the individual, (ii) inform them of alternatives to sharing information, and (iii) not collect, use or store Aadhaar number or biometric information.

2. Voluntary use:
   ● An individual may voluntarily use his Aadhaar number to establish his identity, by authentication or offline verification.

3. Entities using Aadhaar:
   ● An entity may be allowed to perform authentication through Aadhaar, if the UIDAI is satisfied that it is: (i) compliant with certain standards of privacy and security, or (ii) permitted by law, or (iii) seeking authentication for a purpose specified by the central government in the interest of the State.

4. Aadhaar number of children:
   ● The Bill specifies that at the time of enrolling a child to obtain an Aadhaar number, the enrolling agency shall seek the consent of his parent or guardian.
After attaining eighteen years of age, the child may apply for cancellation of his Aadhaar.

5. Disclosure of information in certain cases:
- The Bill amends disclosure provision to allow disclosures only for orders by High.
- Bill amends to allow such disclosure on directions of officers not below the rank of a Secretary.

6. UIDAI Fund:
- All fees and revenue collected by the UIDAI will be credited to the Unique Identification Authority of India Fund.
- The fund shall be used for expenses of the UIDAI, including salaries and allowances of its employees.

7. Complaints:
- Amendment allows the individual to register complaints in certain cases.
- The Bill defines the Aadhaar ecosystem to include enrolling agencies, requesting agencies, and offline verification-seeking entities.

8. Penalties:
Under the Bill, the UIDAI may initiate a complaint against an entity in the Aadhaar ecosystem for failure to:
- Comply with the Act or the UIDAI’s directions
- Furnish information required by the UIDAI.
- Adjudicating Officers appointed by the UIDAI shall decide such matters, and may impose penalties up to one crore rupees on such entities.

About Unique Identification Authority of India:
- The Unique Identification Authority of India (UIDAI) is a statutory authority established on 12 July 2016 by the Government of India under the jurisdiction of the Ministry of Electronics and Information Technology, following the provisions of the Aadhaar Act 2016.
- The UIDAI is mandated to assign a 12-digit unique identification (UID) number (Aadhaar) to all the residents of India.

Parliament passes RTI Amendment Bill 2019
The Lok Sabha had passed the Right to Information (Amendment) Bill, 2019. This bill will provide the central government with the right to employ, decide the term, allowance and conditions of service of the information officers.
The Muslim Women (Protection of Rights on Marriage) Bill 2019
- The bill replaces an Ordinance promulgated on February 2019.
- The Bill makes all declaration of talaq, including in written or electronic form, to be void (i.e. not enforceable in law) and illegal.
- It defines talaq as talaq-e-biddat or any other similar form of talaq pronounced by a Muslim man resulting in instant and irrevocable divorce.
- Talaq-e-biddat refers to the practice under Muslim personal laws where pronouncement of the word ‘talaq’ thrice in one sitting by a Muslim man to his wife results in an instant and irrevocable divorce.

**Offence and penalty:**
- The Bill makes declaration of talaq a cognizable offence, attracting up to three years’ imprisonment with a fine. (A cognizable offence is one for which a police officer may arrest an accused person without warrant.)
- The bail may be granted only after hearing the woman (against whom talaq has been pronounced), and if the Magistrate is satisfied that there are reasonable grounds for granting bail.
- The offence may be compounded by the Magistrate upon the request of the woman (against whom talaq has been declared). Compounding refers to the procedure where the two sides agree to stop legal proceedings, and settle the dispute.

The Code on Wages Bill, 2019
- Consultations were held with trade unions, employers and State governments.
- A draft of Wage Code was made available in public domain through Ministry’s website.
The Code ensures minimum wages along with timely payment of wages to all the employees and workers. Many unorganized sector workers like agricultural workers, painters, persons working in restaurants and dhabas, chowkidars etc. who were out of the ambit of minimum wages will get legislative protection of minimum wages.

The salient features of the Code are as following:

- Many changes have been introduced in the inspection regimes including web based randomised computerised inspection scheme, jurisdiction-free inspections, calling of information electronically for inspection, composition of fines etc.
- To protect the interest of the workers, the limitation period that the workers can make claims has been raised to 3 years
- As per the bill, the tripartite committee comprising representatives of trade unions, employers and state government would fix a floor wage for workers throughout the country
- The draft bill will effectively address the problems relating to delay in payment of wages whether on monthly, weekly or daily basis.
- The bill will ensure that there are no discriminations between male and female as well as transgenders in getting wages.
- The definition ‘wages’ has been simplified in the Bill and is expected to reduce litigation and also reduce compliance costs for employers.
1.2 Industrial Development

Trade Infrastructure for Export Scheme (TIES)
The Department of Commerce, under the Union Ministry of Commerce and Industry, has approved financial assistance for three trade promotion centers under the TIES.

About the Scheme
- The scheme would provide assistance for setting up and up-gradation of infrastructure projects with overwhelming export linkages like the Border Haats, Land customs stations, quality testing and certification labs, cold chains, trade promotion centers, dry ports, export warehousing and packaging, SEZs and ports/airports cargo terminuses.
- The proposals of the implementing agencies for funding will be considered by an inter-ministerial Empowered Committee.

Indian Railway Rolling Stock Company
Indian Railways is set to bundle its manufacturing (locomotives and rolling stock) units and workshops into a new public sector units (PSU) - Indian Railway Rolling Stock Company.

Key Facts:
- The plan is to start with the latest coach factory in Rae Bareli. The rest of the units can be taken over by the new entity slowly.
- The idea behind the restructuring plan is to ensure operational efficiency.
- To get access to state-of-the-art technology, cheaper capital and flexibility
- Each unit will operate as a profit centre reporting to the CEO, who will report to the chairman and managing director (CMD) of the new PSU. The CMD will report to the Railway Board.

Zero budget farming
Finance Minister has mentioned about Zero budget farming in her recent Budget speech.

About Zero budget farming:
- Zero Budget Natural Farming, as the name implies, is a method of farming where the cost of growing and harvesting plants is zero.
- It is, basically, a natural farming technique that uses biological pesticides instead of chemical-based fertilizers.
- Farmers use earthworms, cow dung, urine, plants, human excreta and such biological fertilizers for crop protection.
- It reduces farmers’ investment.
- It also protects the soil from degradation.
- Zero budget natural farming requires only 10 per cent water and 10 per cent electricity than what is required under chemical and organic farming.
- ZBNF may improve the potential of crops to adapt to and be produced for evolving climatic conditions.
ZED scheme
The Government has launched a new scheme namely “Financial Support to MSMEs in ZED Certification Scheme”. More than 22,288 Micro, Small and Medium Enterprises (MSMEs) have registered themselves to take up Zero Defect, Zero Effect (ZED) manufacturing under ZED scheme.

ZED scheme
- It was given for producing high quality manufacturing products with a minimal negative impact on the environment
- The objective
  - Develop an Ecosystem for Zero Defects Manufacturing in MSMEs.
  - Promote adaptation of Quality tools/systems and Energy Efficient manufacturing.
  - Enable MSMEs for manufacturing of quality products.
  - Encourage MSMEs to constantly upgrade their quality standards in products and processes.
  - Drive manufacturing with adoption of Zero Defect production processes and without impacting the environment.
  - Support ‘Make in India’ campaign.
  - Develop professionals in the area of ZED manufacturing and certification.
- There are 50 parameters for ZED rating and additional 25 parameters for ZED Defence rating under ZED Maturity Assessment Model.
- The MSMEs are provided financial assistance for the activities to be carried out for ZED certification.
- Quality Council of India (QCI) has been appointed as the National Monitoring & Implementing Unit (NMIU) for implementation of ZED.

The Ministry of MSME is implementing a number of schemes to promote MSMEs namely
1. Credit Guarantee Fund Scheme for Micro and Small Enterprises to facilitate collateral free credit to new and existing micro and small enterprises (MSEs);
2. Scheme for Raw Material Assistance implemented by National Small Industries Corporation Limited under the Ministry;
3. National Manufacturing Competitiveness Programme (NMCP) and Credit Linked Capital Subsidy Scheme implemented to facilitate upgradation of technology, improve processes and design;
4. Management Development Training Programmes (MDPs) for enhancing managerial skills;
5. Micro and Small Enterprises-Cluster Development Programme to facilitate infrastructure upgradation and setting up of Common Facility Centres; and
6. Marketing Development Assistance Support to MSME;
7. Ministry of MSME has introduced online MSME Data Bank for creating comprehensive database of MSMEs and
8. Ministry of MSME has introduced simplified online registration “Udyog Aadhar Memorandum (UAM) for MSMEs”.

Private Sector Investment in Defence Production

- In May, 2001, the Defence Industry sector, which was hitherto reserved for the public sector, was opened up to 100% for Indian private sector participation through licensing.
- 442 licenses for manufacturing of defence items have been issued so far.
- The Defence Product List has been progressively rationalised and trimmed and licensing procedure has been further simplified.

Measures have taken during the last three financial years

Defence Procurement Procedure (DPP) has been revised in 2016 wherein specific provisions have been introduced for stimulating growth of the domestic defence industry

- It has been accorded top most priority for procurement of capital equipment. Besides this, preference has been accorded to ‘Buy (Indian)’, ‘Buy and Make (Indian)’ & ‘Make’ categories of capital acquisition over ‘Buy (Global)’ & ‘Buy & Make (Global)’ categories.
- The ‘Make’ Procedure has been simplified with provisions for funding of 90% of development cost by the Government to Indian industry and reserving projects not exceeding development cost of Rs.10 crore (Government funded) and Rs.3 crore (Industry funded) for MSMEs.
- Government has decided to establish two defence industrial corridors.
- These are spanning across Chennai, Hosur, Coimbatore, Salem and Tiruchirappalli in Tamil Nadu and across Aligarh, Agra, Jhansi, Chitrakoot, Kanpur and Lucknow in Uttar Pradesh (UP).
- An innovation ecosystem for Defence titled Innovations for Defence Excellence (iDEX) has been launched in April, 2018.
- The Ministry has instituted a new framework titled ‘Mission Raksha Gyan Shakti’ which aims to provide boost to the IPR culture in indigenous defence industry.
- Government has notified a Policy for indigenisation of components and spares used in Defence Platforms in March, 2019 with the objective to create an industry ecosystem which is able to indigenize the imported components (including alloys & special materials) and sub-assemblies for defence equipment and platform.
- FDI is allowed under automatic route upto 49% and beyond 49% through Government route.
- Scheme for promotion of defence Exports has been notified.
- Government has set up the Technology Development Fund (TDF).
- Offset guidelines have been made flexible by allowing change of Indian Offset Partners (IOPs) and offset components, even in signed contracts.

**Motor Vehicles and their Parts to be Affixed with Microdots**

Amending the Central Motor Vehicle Rules, motor vehicles and their parts, components, assemblies, sub-assemblies are to be affixed with permanent and nearly invisible microdots that can be read physically with a microscope and identified with ultra violet light source.

**Microdot:**

- This technology involves spraying the body and parts of the vehicle or any other machine with microscopic dots, which give a unique identification.
- Use of this technology will help check theft of vehicles and also use of fake spare parts.
- The microdots and adhesive will become permanent fixtures/affixation which cannot be removed without damaging the asset that is the vehicle itself.
- The notification says that the microdots, if affixed, will have to comply with AIS 155 requirements.
‘MAKE IN INDIA’ Initiatives in Steel Sector
Under Domestically Manufactured Iron and Steel Products Policy, Central Government Ministries / Departments and their agencies are required to mandatorily procure only those steel items which are manufactured in India.

Although Steel is a deregulated sector, the following steps have been taken by the Government to curtail steel imports and boost steel exports:
1. Government has notified 53 Steel and Steel Product (Quality Control) Orders which is applicable for both domestic productions as well as imports.
2. The Steel Quality Control Order are implemented in the public interest for the protection of human, animal and plant, safety of environment, prevention of unfair trade practices and national security.
3. In order to protect the domestic industry from unfair external competition, appropriate trade measures such as anti-dumping duties and countervailing duties have been imposed.
4. Government has several schemes for promoting exports, such as MEIS, Market Access initiative, Export Promotion Council etc.

New Space India Limited
The Union Government has set up New Space India Limited (NSIL), a wholly owned Government of India undertaking/ Central Public Sector Enterprise (CPSE), under the administrative control of Department of Space (DOS) to commercially exploit the research and development work of Indian Space Research Organisation (ISRO) Centres and constituent units of DOS.
NSIL has been incorporated to carry out the following roles and functions as part of its mandate viz.
• Small Satellite technology transfer to industry, wherein NSIL will obtain license from DOS/ISRO and sub-license it to Industries;
• Manufacture of Small Satellite Launch Vehicle (SSLV) in collaboration with Private Sector;
• Productionisation of Polar Satellite Launch Vehicle (PSLV) through Indian Industry;
• Productionisation and marketing of Space based products and services, including launch and application;
• Transfer of technology developed by ISRO Centres and constituent units of DOS;
• Marketing spin-off technologies and products/services, both in India and abroad; and
• Any other subject which Government of India deems fit.

1.3 Economic development

India Ratifies Convention on Tax treaty

Recently India has ratified the Multilateral Convention to Implement Tax Treaty Related Measures (MLI) to prevent Base Erosion and Profit Shifting (BEPS).

Key Facts:

- The MLI is aimed to prevent firms from moving profit out of country.
- Out of 93 tax treaties notified by India, 22 countries have already ratified the MLI so far and the Double Taxation Avoidance Agreement (DTAA) with these countries will be modified by MLI.
- For the remaining countries with tax treaties with India, the MLI will come into force when they ratify it.
- The MLI will come into force for India from October 1, 2019.

About The Multilateral Convention to Implement Tax Treaty Related Measures (MLI):

- The multilateral convention is an outcome of the OECD/G20 project to tackle base erosion and profit shifting.
- This project was designed to work on anti-evasion measures that could curb tax planning strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations.
- The MLI will be applied alongside existing tax treaties, modifying their application in order to implement the BEPS measures.
- It will lead to amendments to double taxation avoidance agreements (DTAA) with the countries signatories to the convention to plug revenue leakages.

About Base Erosion and Profit Shifting (BEPS):

- BEPS is a term used to describe tax planning strategies that exploit mismatches and gaps that exist between the tax rules of different jurisdictions.
- It is done to minimize the corporation tax that is payable overall, by either making tax profits ‘disappear’ or shift profits to low tax jurisdictions where it is little or no genuine activity.
- In general BEPS strategies are not illegal; rather they take advantage of different tax rules operating in different jurisdictions.
● BEPS is of major significance for developing countries due to their heavy reliance on corporate income tax, particularly from multinational enterprises (MNEs).
● The BEPS initiative is an OECD initiative, approved by the G20, to identify ways of providing more standardised tax rules globally.

Working Group on Core Investment Companies
The Reserve Bank of India (RBI) has constituted a working group to review the regulatory guidelines and supervisory framework applicable for Core Investment Companies (CIC), headed by Tapan Ray.

About Core Investment Company
● Core Investment Companies (CICs) are a specialized Non-Banking Financial Companies (NBFCs).
● They have asset size of Rs 100 crore and above.
● Their main business is acquisition of shares and securities with certain conditions.
● It holds not less than 90% of its net assets in the form of investment in equity shares, preference shares, bonds, debentures, debt or loans in group companies.
● It does not trade in its investments in shares, bonds, debentures, debt or loans in group companies except through block sale for the purpose of dilution or disinvestment.
● It does not carry on any other financial activity except investment in bank deposits, money market instruments, government securities, loans to and investments in debt issuances of group companies or guarantees issued on behalf of group companies.
● It accepts public funds.

Kisan Credit Card scheme
The Government of India has extended the facility of Kisan Credit Card (KCC) to fisheries and animal husbandry farmers to help them meet their working capital needs.

About Kisan Credit Card Scheme:
● The KCC scheme is being implemented by the all Co-operative banks, Regional Rural Banks and Public Sector Banks throughout the country.
● To provide adequate and timely credit support from the banking system to the farmers at the cheap rate of interest.
● To provide credit at the time of requirement.
● To support post-harvest expenses.
● To provide Working capital for maintenance of farm assets and activities allied to agriculture.

Salient features of the Scheme:
● Revolving cash credit facility involving any number of withdrawals and repayments within the limit.
● Limit to be fixed on the basis of operational land holding, cropping pattern and scale of finance.
Card valid for 5 years subject to annual review. As an incentive for good performance, credit limits could be enhanced to take care of increase in costs, change in cropping pattern, etc.

Conversion/ reschedule of loans also permissible in case of damage to crops due to natural calamities.

National Investment and Infrastructure Fund (NIIF)

National Highways Authority of India (NHAI) signs MoU with National Investment and Infrastructure Fund (NIIF) for funding highway projects.

About NIIF:

- The government had set up the ₹40,000 crore NIIF in 2015 as an investment vehicle for funding commercially viable greenfield, brownfield and stalled infrastructure projects.
- The Indian government is investing 49% and the rest of the corpus is to be raised from third-party investors such as sovereign wealth funds, insurance and pension funds, endowments, etc.
- NIIF’s mandate includes investing in areas such as energy, transportation, housing, water, waste management and other infrastructure-related sectors in India.
- NIIF currently manages three funds each with its distinctive investment mandate. The funds are registered as Alternative Investment Fund (AIF) with the Securities and Exchange Board of India (SEBI).
  1. The Master Fund is an infrastructure fund with the objective of primarily investing in operating assets in the core infrastructure sectors such as roads, ports, airports, power etc.
  2. Fund of Funds anchor and/or invest in funds managed by fund managers who have good track records in infrastructure and associated sectors in India. Some of the sectors of focus include Green Infrastructure, Mid-Income & Affordable Housing, Infrastructure services and allied sectors.
  3. Strategic Investment Fund is registered as an Alternative Investment Fund II under SEBI in India. The objective of “Strategic Fund” is to invest largely in equity and equity-linked instruments. The Strategic Fund will focus on green field and brown field investments in the core infrastructure sectors.

GAFA tax

GAFA tax is an acronym for Google, Apple, Facebook and Amazon passed recently by France Parliament.

Highlights:

- France has become the first major economy to impose a tax on digital giants.
- It aims at plugging a taxation gap that has seen some internet heavyweights paying next to nothing in countries where they make huge profits.
- The law will levy a 3 per cent tax on total annual revenues of the largest tech firms providing services to French consumers.
Government plans to exit 23 CPSEs
Central public sector enterprises (CPSEs) are those companies in which the direct holding of the Central Government or other CPSEs is 51% or more.

Difference between disinvestment and strategic disinvestment
- In case of disinvestment, the Government sells shares of a company so that it can fetch some money.
- But strategic disinvestment involves sale of substantial volume of shares so that, part of the control of the company and or management passes to the private shareholder.
- During the last two years, strategic disinvestment of 5 CPSEs (HPCL, REC, NPCC, HSCC and DCIL) has been successfully completed.

Why government plan strategic disinvestment
1. The government should not be in the business
2. When a turnaround has been attempted but was unsuccessful

Types of Disinvestment Methods in India
1. Minority Disinvestment/Token Disinvestment
   A minority disinvestment is one the government retains a majority stake in the company, typically greater than 51%, thus ensuring management control.
2. Majority Disinvestment/Strategic Disinvestment
   The government retains a minority stake in the company i.e. it sells off a majority stake. It is also called Strategic Disinvestment.
3. Complete Privatisation
   Complete privatisation is disinvestment wherein 100% control of the company is passed on to a buyer.

Draft ‘Banning of Crypto currency & Regulation of Official Digital Currency Bill, 2019’
The Government had constituted an Inter-Ministerial Committee (IMC) to study the issues related to virtual currencies and propose specific action to be taken in this matter. The Group’s report, along with a Draft Bill has been received by the Government.

- In the Report, the Group has highlighted the positive aspect of distributed-ledger technology (DLT) and suggested various applications, especially in financial services, for use of DLT in India.
- The DLT-based systems can be used by banks and other financial firms for processes such as
  1. Loan-issuance tracking,
  2. Collateral management,
  3. Fraud detection
  4. Claims management in insurance, and
  5. Reconciliation systems in the securities market.

- As for private crypto currencies, given the risks associated with them and volatility in their prices, the Group has recommended banning of the crypto currencies in India and
imposing fines and penalties for carrying on of any activities connected with cryptocurrencies in India.

**International Settlement Agreements**

The Union Cabinet has approved the signing of the United Nations Convention on International Settlement Agreements (UNISA).

**Benefit:**

Signing of the Convention will boost the confidence of the investors and shall provide a positive signal to foreign investors about India's commitment to adhere to international practice on Alternative Dispute Resolution (ADR).

**Alternative Dispute Resolution**

- The concept of Alternative Dispute Resolution (ADR) mechanism is capable of providing a substitute to the conventional methods of resolving disputes.
- Generally, ADR uses neutral third party who helps the parties to communicate, discuss the differences and resolve the dispute.

**Consumer Protection Bill, 2019**

**Salient Features of the Bill**

1. **Central Consumer Protection Authority (CCPA):**
   The CCPA is an executive agency empowered to-
   - Conduct investigations into violations of consumer rights and institute Complaints /Prosecution
   - Order recall of unsafe goods and services
   - Order discontinuance of unfair trade practices and misleading advertisements
   - Impose penalties on manufacturers /endorsers /publishers of misleading advertisements

2. **Simplified Dispute Resolution process**
   - Pecuniary Jurisdiction enhanced to-
     1. District Commission –Upto Rs 1 crore
     2. State Commission- Between Rs 1 crore and Rs 10 crore
     3. National Commission –Above Rs 10 crore
   - Deemed admissibility after 21 days of fill-in
   - Empowerment of Consumer Commission to enforce their orders
   - Appeals only on question of law after second stage
   - Ease of approaching consumer commission
   - Filing from place of residence
   - E-filing
   - Videoconferencing for hearing

3. **Mediation**
   - An Alternate Dispute Resolution (ADR) mechanism
4. **Product Liability**

A manufacturer or product service provider or product seller to be responsible to compensate for injury or damage caused by defective product or deficiency in services

The Basis for product liability action will be:

- Manufacturing defect
- Design defect
- Deviation from manufacturing specifications
- Not conforming to express warranty
- Failing to contain adequate instructions for correct use
- Services provided are faulty, imperfect or deficient

**New Bill - Benefit to Consumers**

- Presently consumer only has a single point of access to justice, which is time consuming.
- Additional swift executive remedies are proposed in the bill through Central Consumer Protection Authority (CCPA)
- Deterrent punishment to check misleading advertisements and adulteration of products
- Product liability provision to deter manufacturers and service providers from delivering defective products or deficient services
- Ease of approaching Consumer Commission and simplification of adjudication process
- Scope for early disposal of cases through mediation
- Provision for rules for new age consumer issues: e-commerce & direct selling
2. ENERGY AND ENVIRONMENT

2.1 Environment

Jal Shakti Abhiyan

Jal Shakti Abhiyan for Water Conservation Launched.

Key facts:
- It is a time-bound, mission-mode campaign that would focus on 1,592 “water-stressed” blocks in 257 districts.
- The campaign will run through citizen participation during the monsoon season.
- The blocks are identified as “water-stressed” as per the Central Ground Water Board’s 2017 data.
- Jal Shakti Abhiyan is a collaborative effort of various ministries of the Government of India and State Governments, being coordinated by the Department of Drinking Water and Sanitation.
- The five important water conservation interventions are:
  1. Water conservation and rainwater harvesting,
  2. Renovation of traditional and other water bodies/tanks,
  3. Reuse of water and recharging of structures,
  4. Watershed development and
  5. Intensive afforestation.
- The water conservation interventions will also be supplemented with special interventions including the development of block and district water conservation plans, promotion of efficient water use for irrigation and better choice of crops through Krishi Vigyan Kendras.
- A large-scale communications campaign has also been planned alongside the JSA involving mass mobilisation of different groups including school students, college students, swachhagrahis, Self Help Groups, Panchayati Raj Institution members, youth groups (NSS/NYKS/NCC), defence personnel, ex-servicemen and pensioners, among various others.

Fly ash

The National Green Tribunal has sought a report from the authorities on the current status on disposal and management of fly ash.

About Fly Ash:
- Fly ash is a major source of PM 2.5 (fine, respirable pollution particles) in summer. It becomes airborne, and gets transported to a radius of 10 to 20 kms.
- It can settle on water and other surfaces.
- Fly ash contains heavy metals from coal, a large amount of PM 2.5 and black carbon (BC).
- Fly ash, the end product of combustion during the process of power generation in the coal based thermal power plants, is a proven resource material for many applications of
construction industries and currently is being utilized in manufacturing of Portland Cement, bricks/blocks/tiles manufacturing, road embankment construction and low-lying area development, etc.

**Shrinking Sea Ice Extent**

As per the study of National Aeronautics and Space Administration (NASA), after decades of gradual increases, Antarctic sea ice is now decreasing, faster than that in the Arctic.

**Highlights of the study:**

- The sea ice extent is a measure of the surface area of the ocean covered by ice.
- The Arctic and Antarctic both are experiencing shrinking of the sea ice extent which proves the effect of global warming on Frigid Zones.
- The satellite observations of Antarctic sea ice coverage since the late 1970s show that after a gradual increase in the Antarctic sea ice over decades until 2014, the trend suddenly reversed completely in the 2014-2017 period.
- Climate scientists have been warning of an increase in the frequency of extreme weather events, increased variability and instability of climatic patterns because of global warming.
- The sea surface temperatures in the open waters of the Arctic have been unusually high.
- The sea surface temperature is a measure of the energy due to the motion of molecules at the top layer of the sea.

**Significance**

- Antarctica is largely protected from atmospheric warming by the westerly winds which surround the continent and Antarctic sea ice does not respond directly to global warming.
- Apart from the climate change, the ozone hole and short-term cycles like El Niño also affect the westerly winds.
- The sea ice responds to the level of ocean mixing, which is affected by melt water from the Antarctic Ice Sheet.

**Impact of Decreasing Sea Ice**

- The bright surface of sea ice reflects 50% to 70% of sunlight back into space. But when sea ice melts, it turns into dark ocean surface, which absorbs 90% of the sunlight. The more light is absorbed, the warmer global systems become.
- Sea ice also affects the polar ecosystem.
- Warming of the poles can lead to greater persistence in seasonal patterns and an increased frequency of extreme events resulting in increased variability and instability in climate.

**“Miyawaki” method of afforestation**

Telangana government has introduced the Japanese “Miyawaki” method of afforestation to grow urban forests and expand the green cover as well as to meet the stipulated plantation target under the Telanganaku Haritha Haaram (TKHH).

**About the method:**
• Miyawaki is a technique pioneered by Japanese botanist Akira Miyawaki that helps build dense, native forests in a short time.
• This method includes planting trees (only native species) as close as possible in the same area which not only saves space, but the planted saplings also support each other in growth and block sunlight reaching the ground, thereby preventing the growth of weed.
• The approach is supposed to ensure that plant growth is 10 times faster and the resulting plantation is 30 times denser than usual.
• Miyawaki method helps to create a forest in just 20 to 30 years, while through conventional methods it takes anywhere between 200 to 300 years.

Coral Rehab Programme
The National Centre for Coastal Research’s (NCCR) proposal of dropping ‘melted plastic rocks or slabs’ on the seabed for growing coral reefs and address the problem of disposal of plastic waste has drawn criticism from the Gulf of Mannar (GoM) Marine National Park, which has been implementing coral rehabilitation programme since 2002.

About the Coral Rehabilitation Programme:
• The program employs ‘concrete frame slabs’ method.
• Corals would start growing in 60 days using the concrete frames as sub-state.

Environment Impact Assessment (EIA)
State-level officers tasked with environmental assessment have objected to several clauses in a draft law that proposes the creation of district-level environment impact assessment authorities.

About EIA:
• Environment Impact Assessment in India is statutory backed by the Environment Protection Act in 1986, which contains various provisions on EIA methodology and process.
• Environment Impact Assessment (EIA) is a formal process used to predict the environmental consequences of any development project.
• The objective of the EIA is to identify the environmental, social and economic impacts of a project prior to taking a decision on its implementation. Mitigation of harmful impacts and maximizes the beneficial effects.

Great Indian bustard project
The Environment Ministry has initiated a project worth ₹33.85 crore for their conservation and protection of Great Indian bustard.

About the project:
• It is a Centrally Sponsored Scheme.
• Through ‘Integrated Development of Wildlife Habitats’, government provides funds to states & Union Territories under the component ‘Species Recovery Programme’.
• The fund is for conservation and protection of 21 critically endangered species, including the Great Indian Bustard.
The ministry has also initiated ‘Habitat Improvement and Conservation Breeding of Great Indian Bustard’ – An Integrated Approach.

The important objective of this is to build up a captive population of great Indian bustard and to release the chicks in the wild for increasing the population.

Rajasthan, Gujarat and Maharashtra are the important range states involved in this programme.

**Key Facts about Great Indian bustard:**
- It is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972
- It is listed as Critically Endangered on the IUCN Red List

**Threats:**
- Agriculture & aquaculture
- Energy production & mining
- Transportation & service corridors
- Human intrusions & disturbance
- Invasive and other problematic species and diseases

**Desalination without Electricity**
The researchers at the Tata Institute of Fundamental Research (TIFR), Mumbai, have been able to desalinate seawater to produce drinking water without using electricity.

**Highlights:**
- Unlike the conventional reverse osmosis that is energy-intensive, the researchers used gold nanoparticles which required no external energy to produce potable water from seawater.
- Using gold nanoparticles that absorb sunlight, researchers were able to heat the water up to 85 degrees Celsius and generate steam to produce drinking water from seawater.
- The next step should be to replace gold with some inexpensive metal to make it sustainable.

**Results of 4th cycle of All India Tiger Estimation**
- The country has emerged as one of the biggest and safest habitats for tigers in the world.
- The tiger population in the country has grown from 1,411 in 2006 to 2,226 in 2014 and 2,967 in 2019, according to the report.
- Nine long years ago, it was decided in St. Petersburg (Russia) that the target of doubling the tiger population would be 2022. India has completed this target four years in advance.

**Seed Bankers for Conserving Native Crops**

**Protection of Plant Varieties & Farmers Right Authority (PPV&FRA)**
- PPV&FR Authority registers farmer’s varieties.
- Till date 1597 farmers varieties have been registered with PPV&FRA and certificates of registration have been issued.
The PPV&FRA annually confers **35 Awards** amounting to farmer(s)/farming communities engaged in conservation of plant genetic resources and which have been used as donor of genes in varieties registerable under the Act.

ICAR-National Bureau of Plant Genetic Resources (NBPGR), New Delhi is conserving seed germplasm for long-term conservation (at -20°C) in its National Genebank (NGB).

NGB has the responsibility of conservation of plant genetic resources for posterity and sustainable use including landraces and traditional varieties which are potential sources of agriculture.

**Radiation Technology for Sewage Treatment**

- Bhabha Atomic Research Centre (BARC) in collaboration with Amdavad Municipal Corporation (AMC), Ahmedabad has set up a Technology Demonstration Pilot Project “Sewage Sludge Hygienisation Plant”. The plant is loaded with Co-60.
- Another liquid sludge irradiator; Sludge Hygienisation Research Irradiator (SHRI) is operating at Vadodara for radiation treatment of raw sludge containing 3-4% solids since last 30 years.
- BARC outreach programmes have been used as an effective platform to dispense information about this technology through oral presentations, animated videos, posters, demonstrations at different universities and institutions.

**2.2 Energy**

**National Electric Mobility Mission Plan**

The National Electric Mobility Mission Plan (NEMMP) 2020 is a National Mission document providing the vision and the roadmap for the faster adoption of electric vehicles and their manufacturing in the country.

**Key Facts:**

- The plan has been designed to enhance national fuel security
- To provide affordable and environmentally friendly transportation
- To enable the Indian automotive industry to achieve global manufacturing leadership.
- FAME-India Scheme Phase – II for promotion of Electric Mobility in the country.
  1. The scheme proposes to give a push to electric vehicles (EVs) in public transport.
  2. It seeks to encourage adoption of EVs by way of market creation and demand aggregation.

**About FAME India:**

- Main thrust of FAME is to encourage electric vehicles by providing subsidies.
- FAME focuses on 4 areas i.e. Technology development, Demand Creation, Pilot Projects and Charging Infrastructure.

**Hydrogen-enriched compressed natural gas (HCNG)**

Delhi will be the first city in the country to roll out hydrogen-enriched compressed natural gas (HCNG) buses for public transport from November 2020.
Key facts:

- It will start as a pilot project with 50 CNG buses retrofitted with HCNG.
- Also, the Delhi government along with Indian Oil Corporation Limited (IOCL) and Indraprastha Gas Limited (IGL) began work to set up India’s first semi-commercial HCNG station.

About HCNG:

- The blending of hydrogen with CNG provides a blended gas termed as HCNG.
- It is being treated as a first step towards a future hydrogen economy.
- Hydrogen has been regarded as a future secondary fuel for power system due to carbon-free operation.
- Hydrogen is an excellent additive to improve the combustion of hydrocarbon fuel due to its low ignition energy, high reactivity, diffusivity and burning velocity.

SATAT initiative

The government has said that the Sustainable Alternative Towards Affordable Transportation (SATAT) Initiative has the potential of addressing environmental problems arising from landfill emissions, farm stubble burning, etc. and also brings down dependency on oil/gas import.

About Initiative:

- The initiative is aimed at providing a Sustainable Alternative Towards Affordable Transportation (SATAT) as a developmental effort that would benefit both vehicle-users as well as farmers and entrepreneurs.
- Compressed Bio-Gas plants are proposed to be set up mainly through independent entrepreneurs. CBG produced at these plants will be transported through cascades of cylinders to the fuel station networks of OMCs for marketing as a green transport fuel alternative.
- The entrepreneurs would be able to separately market the other by-products from these plants, including bio-manure, carbon-dioxide, etc.to enhance returns on investment.

About Compressed Bio-Gas:

Compressed Bio-Gas is exactly similar to the commercially available natural gas in its composition and energy potential. With calorific value (~52,000 KJ/kg) and other properties similar to CNG, Compressed Bio-Gas can be used as an alternative, renewable automotive fuel.

Government spots constraints on renewable energy projects

1. Land constraints,
2. Insufficient transmission facility and
3. Discom defaults on payments
are the leading impediments to renewable energy adoption in the country.

Modifications in solar parks’ scheme

- On July 12, 2019, the government introduced two sets of modifications in scheme for development of solar parks.
The definition of “own land” has been expanded to include land taken from various state or central governments or their entities or PSUs on lease or on right to use basis.

The second modification applies to capacity tendered via Solar Energy Corporation of India (SECI).

SECI is made responsible:

- For making the land available to the successful bidder
- For ensuring development of external power evacuation infrastructure by the relevant development agency; and
- For maintaining a payment security fund (PSF) for a renewable energy park against Discom’s default

3. INFORMATION AND COMMUNICATION TECHNOLOGY

National Mission on Natural Language Translation
The Ministry of Electronics and IT is planning to launch a National Mission on Natural Language Translation. It is one of the key missions identified by the Prime Minister’s Science, Technology and Innovation Advisory Council (PM-STIAC).

About the Mission:
- It aims to make science and technology accessible to all by facilitating access to teaching and researching material bilingually — in English and in one’s native Indian language.
The government plans to leverage a combination of machine translation and human translation. The mission would help not just students but also teachers, authors, publishers, translation software developers and general readers.

**National Mission on Education through Information and Communication Technology (NMEICT)**
The Ministry of Human Resource Development administers the programme, National Mission on Education through Information and Communication Technology (NMEICT), to leverage the potential of ICT to make the best quality content accessible to all learners in the country free of cost.

**Initiatives under the Program**

1. **SWAYAM**
   - The Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM) is an integrated platform for offering online courses, covering school (9th to 12th) to Postgraduate Level.
   - The online courses are being used not only by the students but also by the teachers and non-student learners, in the form of lifelong learning.

2. **SWAYAM Prabha**
   - It is an initiative to provide 32 High Quality Educational Channels through DTH (Direct to Home) across the length and breadth of the country on a 24X7 basis.

3. **National Digital Library of India (NDL)**
   - It is a project to develop a framework of virtual repository of learning resources with a single-window search facility.
   - Presently, there are more than 3 crore digital resources available through the NDL.

4. **Spoken Tutorial:**
   - They are 10-minute long, audio-video tutorial, on open source software, to improve employment potential of students.
   - It is created for self learning, audio dubbed into 22 languages and with the availability of online version.

5. **Free and Open Source Software for Education (FOSSEE)**
   - It is a project promoting the use of open source software in educational institutions.
   - It does that through instructional material, such as spoken tutorials, documentation, such as textbook companions, awareness programmes, such as conferences, training workshops, and internships.

6. **Virtual Lab**
   - This is a project to develop a fully interactive simulation environment to perform experiments, collect data, and answer questions to assess the understanding of the knowledge acquired.
   - There are about 225 such labs operational, with more than 1800 experiments that benefitted more than 15 lakhs students.

7. **E-Yantra:**
● It is a project for enabling effective education across engineering colleges in India on embedded systems and robotics.
● More than 275 colleges across India have benefited with this initiative.

**Earth Observation Satellite RISAT-2B**

RISAT-2B is an indigenously developed Synthetic Aperture Radar (SAR) Imaging Satellite operating in the X-band.

**Key Facts:**

- The highly agile satellite is capable of operating in different modes including Very High Resolution RADAR imaging modes of 1m x 0.5m resolution and 0.5m x 0.3m resolution.
- In order to increase the number of imaging opportunities, the satellite is placed in an inclined orbit.
- RISAT-2B is a Radar Imaging satellite; it can be operated effectively during day / night / all weather conditions.
- The Satellite will be used for high resolution spot imaging of locations of interest.

**Applications of RISAT-2B:**

- Hydrology, Crops, Forestry, Geosciences and Cryosphere.
- During the time of exigencies, very high resolution, day/night/all-weather imaging capabilities of RISAT-2B could be utilized for agriculture applications and disaster management support.

**Automated Facial Recognition System**

National Crime Records Bureau (NCRB) has released a request proposal for an Automated Facial Recognition System (AFRS) to be used by police officers across the country.

**About AFRS:**

- AFRS will be a mobile and web application hosted in NCRB (which manages data for police) data center in Delhi but used by all police stations in the country.
AFRS works by comparing the new image of an unidentified person often taken from CCTV footage with the existing database (AFRS maintains a database with photos and videos of people faces) to find a match and identify the person.

The artificial intelligence technology used for pattern-finding and matching is called “neural networks”.

NCRB has proposed integrating automated facial recognition system with multiple existing databases like:
2. Integrated Criminal Justice System (ICJS)
3. State-specific database systems
4. Khoya paya portal

**About Criminal Tracking Network & Systems:**
- CCTNS is countrywide integrated database on crime incidents and suspects, connecting FIR registrations, investigations, and charge sheets of all police stations and higher offices.
- CCTNS also plans to offer citizen services, such as passport verification, crime reporting, online tracking of case progress, grievance reporting against police officers.

**About Integrated Criminal Justice System (ICJS):**
It is any computer network, system or architecture that allows justice practitioners and agencies to electronically access and share information between systems and/or across jurisdictional lines.

**Khoya Paya Portal:**
Khoya Paya portal is a citizen based website to exchange information on missing and found children developed by the Ministry of Women and Child Development and the Department of Electronics and Information Technology (DeitY)

**Chandrayaan-2 launch**

**About the mission:**
- The mission is aimed at landing a rover near the unexplored South Pole. According to ISRO, there is a possibility of the presence of water in permanently shadowed areas around it.
- Chandrayaan 2, has three important components — the Orbiter, the Lander ‘Vikram’, and Rover ‘Pragyan’.
- The Chandrayaan will be tucked into the GSLV Mk-III rocket.
- The vehicle has two solid strap-ons, a core liquid booster and a cryogenic upper stage.
- This mission will help us to better understand the origin and evolution of the moon.
- The mission will carry out extensive three-dimensional mapping of the topography of the region, and will also determine its elemental composition and seismic activity.
The primary objective of Chandrayaan-2 is to demonstrate the ability to soft-landing on the lunar surface and operate a robotic rover on the surface.

Soft-landing is landing without any destruction.

**Journey to Moon**

1. **GSLV Mk II** carrying Chandrayaan-2 spacecraft weighing 3.290 kg will be launched from Sriharikota sometime in April. The spacecraft will carry an orbiter, a rover and a lander to the moon.

2. **Once GSLV Mk II reaches GTO, it will put spacecraft in 170 km x 20,000 km elliptical orbit.**

3. **Orbiter will reach moon’s orbit in over a month.**

4. **After reaching moon’s orbit, lander will get detached from orbiter and do a soft-landing near south pole of moon, which has big rocks that are billions of years old.**

5. **Six-wheeled rover fixed within lander will get detached and move on the lunar surface.**

- **Rover** has been designed in such a way that it will have power to spend a lunar day or 14 Earth days on moon’s surface.

- **It will walk up to 150-200 metres and conduct several experiments and on-site chemical analysis of lunar surface.**

- **Rover will send data & images of moon back to Earth via the orbiter in 15 minutes.**

At the time of launch, the Chandrayaan 2 Orbiter will be capable of communicating with Indian Deep Space Network (IDSN) at Byalalu as well as the **Vikram Lander.**

**Rover - Pragyan:**

*Pragyan* means “Wisdom” in sanskrit.

- It can travel upto 500m (½ a kilometer) from lander
- It only communicate with lander
- It moves across the surface of a planet to find out information and to take samples.

**Lander - Vikram:**

- The Lander of Chandrayaan 2 is named **Vikram** after Dr Vikram A Sarabhai, the Father of the Indian Space Programme.
- It is designed to function for one lunar day, which is equivalent to about 14 Earth days.
• The Lander is designed to execute a soft landing on the lunar surface.

**Payload** is the carrying capacity of an aircraft or launch vehicle, usually measured in terms of weight.

• The payload will include terrain mapping cameras to prepare a 3D map of the intended area.
• An orbiter high resolution camera will capture high-resolution images of the landing site.
• An imaging infrared spectrometer will identify minerals along with signatures of hydroxyl (OH) and water (H2O) molecules in polar regions.

**GSLV MkIII-M1**

• India’s Geosynchronous Satellite Launch Vehicle GSLV MkIII-M1, successfully launched the 3840 kg Chandrayaan-2 spacecraft into an earth orbit today.
• The spacecraft is now revolving round the earth with a perigee (nearest point to Earth) of 169.7 km and an apogee (farthest point to Earth) of 45,475 km.

**Central Equipment Identity Register**

Department of Telecommunications (DoT) under the Ministry of Communications has initiated a Central Equipment Identity Register (CEIR) for mobile service providers. The National Telecom Policy of 2012 calls for the establishment of a National Mobile Property Registry to address the issue of security, theft, and other concerns including reprogramming of mobile handsets.

**About Central Equipment Identity Register:**

• It will be a central depository or database of all mobile phones connected to networks across India.
• CEIR will have information on the Device’s:
  1. International Mobile Equipment Identity (IMEI) number.
  2. Model
  3. Version

**Objectives of Central Equipment Identity Register**

• The CEIR will also access the GSMA’s database of IMEI numbers to check whether the phone is authentic.
• CEIR will be able to block services to subscribers unlike present system that allows only individual networks to block services.

**About International Mobile Equipment Identity**

• Every phone or mobile broadband device has this unique 15 digit code that precisely identifies the device.
• Mobile phone manufacturers assign IMEI numbers to each device based on ranges allotted to them by the Global System for Mobile Communications Association.
• Dual SIM phones will have two IMEI numbers.

**ECI Flagship IT Program - Electronically Transmitted Postal Ballot System (ETPBS)**

• E-postal ballot recorded 60.14% turnout in 2019

**Electronically transmitted Postal Ballot System (ETPBS)**
- Electronically transmitted Postal Ballot System (ETPBS) is developed by Election Commission of India with the help of Centre for Development of Advanced Computing (C-DAC), for the use of the Service Voters.
- It is a fully secured system, having two layers of security.
- Secrecy is maintained through the use of OTP and PIN and no duplication of casted Electronically Transmitted Postal Ballot (ETPB) is possible due to the unique QR Code

Features:
- Service voters can avail this service from anywhere outside their constituency.
- System facilitates creation of service voter electoral roll data.
- Easy, Efficient and Hassle free
- It is a secure system, having two layer security
- OTP is required to download encrypted Electronically Transmitted Postal Ballot file.
- Secrecy is maintained and no duplicate of casted ETPB is possible due to the QR code.
- PIN is required to decrypt, print and deliver ETPB.

![Diagram of ETPBS process]

Download and print pages as per the "List of contents"
Obtain one small and one big envelope
Cut and paste 'Form 12-B-Cover A' label on small envelope
Cut and paste 'Form 13-C-Cover B' label on big envelope
Mark your vote on the e-Postal Ballot Paper
Fold and insert the e-Postal Ballot Paper inside the small envelope and seal it
Complete and sign Form 13A-Declaration by Elector
Put both the sealed small envelope and Form 13A-Declaration by Elector into bigger envelope and seal
Dispatch / send by Post
Design, Manufacture and Deployment of NavIC Systems

About 8,900 NavIC SPS receivers were deployed for use by fishermen, Academic Institutes, R&D Organisations, vehicle trackers etc. The recent developments in connection with NavIC Systems are as follows:

1. ISRO has developed core technologies required for Standard Positioning Services (SPS) and Restricted Services (RS) services of IRNSS/NavIC.
2. In order to miniaturize and provide cost-effective NavIC solution, ISRO is developing various Application Specific Integrated Circuit (ASIC) based modules through industries and in-house projects.

Digitisation of AYUSH

- Ministry of AYUSH has conceptualized AYUSH GRID Project for digitising AYUSH healthcare delivery at all levels.
- AYUSH Grid is envisaged as an omnibus digital eco-system that would lead to all round development of the AYUSH sector in fields of healthcare delivery at all levels, research, education, schemes and various health programs.

The main components of AYUSH GRID Project are as under:

- Health Services
- Education
- Research
- Central Sector and Centrally Sponsored Schemes
- Training
- Citizen Centric Services
- Drug Licencing Portal
- Media Outreach

4. GENERAL KNOWLEDGE

Neutrino Observatory

The Government of India has approved a project to build the India-based Neutrino Observatory (INO) at Pottipuram in Theni District of Tamil Nadu.

Highlights:

- The project aims to set up a 51000 ton Iron Calorimeter (ICAL) detector to observe naturally occurring atmospheric neutrinos in a cavern at the end of an approximately 2 km long tunnel in a mountain.
- To reduce the noise from cosmic rays that is ever present over-ground and which would outnumber the rare neutrino interactions even in a detector as large as ICAL.
- The INO project does not disturb the ecosystem around the site and does not release any radiation, as it does not have any radioactive substance. It measures cosmic rays.
Thirty Meter Telescope
Thirty Meter Telescope is set to begin Construction.

About TMT:
- It is a proposed astronomical observatory with an extremely large telescope (ELT).
- It is an international project being funded by scientific organisations of Canada, China, India, Japan and USA.
- It is proposed to be located in Mauna Kea on the island of Hawaii in the US state of Hawaii.
- The TMT is designed for near-ultraviolet to mid-infrared observations, featuring adaptive optics to assist in correcting image blur.
- TMT will enable scientists to study fainter objects far away from us in the Universe, which gives information about the early stages of evolution of the Universe.
- It will give us finer details of not-so-far-away objects like undiscovered planets and other objects in the Solar System and planets around other stars.

Jaipur City declared as a World Heritage site
Jaipur City, Rajasthan got inscribed on the World Heritage List of UNESCO during the 43rd Session of the World Heritage Committee held at Baku, Azerbaijan.

Key facts:
- India has 38 world heritage sites, that include 30 Cultural properties, 7 Natural properties and 1 mixed site.
- Jaipur is an exemplary development in town planning and architecture that demonstrates amalgamation and important interchange of several ideas over the late medieval period.

About World Heritage sites:
- A World Heritage Site is a landmark or area which is selected by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as having cultural, historical, scientific or other form of significance, and is legally protected by international treaties.
- The sites are judged important to the collective interests of humanity.
- Sites are demarcated by UNESCO as protected zones.

Kailash Mansarovar
Proposal for ‘Sacred Mountain Landscape and Heritage Routes’ (Indian side of Kailash Mansarovar) has been included in Tentative List of World Heritage Sites of India as a Mixed site in April, 2019. As per UNESCO’s Operational Guidelines 2017, a site must be on tentative list of UNESCO at least for a period of one year before proposing it for final nomination.

5. SAFETY

Lok Sabha passes Motor Vehicles Amendment Bill
- The Lok Sabha passed the Motor Vehicles (Amendment) Bill, 2019, which seeks to transform Indian roads with adequate safety measures to reduce road accidents, imposing stiffer penalties for violations and weeding out corruption.
- As part of the initiative, the Centre will develop a system for **cashless treatment** of road accident victims in the so-called golden hour—the period up to an hour after a traumatic injury, during which there is highest likelihood of preventing death by providing medical care.
- The bill also seeks to protect **good Samaritans**, ensuring that people who come forward to help accident victims will not be harassed by the law.
- The original bill was passed by the Lok Sabha in 2017, but failed to get the approval of the Rajya Sabha.
- Towards safety issues, the proposed law has suggested higher penalty for offences such as
  1. Driving without a licence,
  2. Speeding,
  3. Dangerous driving,
  4. Drunk driving and
  5. Vehicles plying without a permit.
  6. There will be strict provisions and suspension of licence for dangerous driving and driving without seat-belts.
- The Centre will have the power to increase the penalty by 10% every year.
- All laws under the transport policy will be framed only after consulting states.
- Under the bill, the Centre can tell an automobile manufacturer to recall motor vehicles in case of defects that cause damage to the environment.
- The bill caps the maximum liability for third-party insurance in case of an accident at ₹5 lakh, compared with ₹50,000 now. There will also be an eight-time increase in compensation in case of hit-and-runs.
- The new law is also expected to make the registration process for new vehicles simpler, and will make Aadhaar mandatory for obtaining a driving licence.
- The validity of driving licences is also proposed to be increased.
PRACTICE QUESTIONS

1. Social development

Q.1 The key focus areas of EQUIP project are:
   1. To improve access to primary education
   2. To improve gross enrolment ratio in higher education
   3. Build educational infrastructure
   4. Use technology and online learning tool

Select the correct answer code:
   a. 1, 2 and 3
   b. 1, 3 and 4
   c. 2, 3 and 4
   d. 1, 2 and 4

Answer: c)

Explanation: The Higher Education Department of the Union Ministry of Human Resource Development has finalized and released a 5-year Vision Plan titled as Education Quality Upgradation and Inclusion Programme (EQUIP).
Q.2 Consider the following statements with reference the ‘National Mission on Education through Information and Communication Technology (NMEICT):

2. It is envisaged as a Centrally Sponsored Scheme to leverage the potential of ICT in teaching and learning process.
3. Virtual Lab and E-Yantra are two important projects under the programme.

Which of the above statements is/are correct?

a. 1 and 2
b. 1, 2 and 3
c. 2 and 3
d. 1 and 3

Answer: b)
Explanation: All are correct.

Q.3 The Global Multidimensional Poverty Index released by:

a. The World Bank
b. United Nation Development Programme
c. Asian Infrastructure Investment Bank
d. None of the above

Answer: b)
Explanation: Global Multidimensional Poverty Index – 2019 (MPI), released by the United Nation Development Programme (UNDP) has revealed that there are vast inequalities across countries, and among the poorer segments of societies.

2. Industrial development

Q.4 Consider the following statements with reference to Zero budget farming:

1. It is a method of farming where the cost of growing and harvesting plants is zero.
2. Chemical-based fertilizers are used under this method for better yield.
3. It saves usage of water and electricity drastically.

Which of the above statements is/are correct?

a. 1 and 2
b. 1, 2 and 3
c. 2 and 3
d. 1 and 3

Answer: d)
Explanation: Zero Budget Natural Farming, as the name implies, is a method of farming where the cost of growing and harvesting plants is zero. It is, basically, a natural farming technique that uses biological pesticides instead of chemical-based fertilizers.

Q.5 With reference to FAME India Scheme, consider the following statements:
1. The scheme will help in addressing the issue of environmental pollution and fuel security.
2. It promotes manufacturing of electric and hybrid vehicle technology
3. It is a part of National Electric Mobility Mission Plan
Which of the above statements is/are correct?
a. 1 and 2
b. 1 and 3
c. 2 and 3
d. 1, 2 and 3

Answer: d)
Explanation: All are correct.

3. Economic development

Q.6 With reference to Base Erosion and Profit Shifting, consider the following statements:
1. It describes tax planning strategies that exploit mismatches and gaps that exist between the tax rules of different jurisdictions.
2. It considers to be illegal in different jurisdictions.
Which of the above statements is/are INCORRECT?
a. 1 Only
b. 2 Only
c. Both 1 and 2
d. Neither 1 nor 2

Answer: b)
Explanation: The Base Erosion and Profit Shifting (BEPS) strategies are not illegal; rather they take advantage of different tax rules operating in different jurisdictions.

Q.7 Consider the following statements with reference to Turnover ratio:
1. It represents the amount of assets or liabilities that a company replaces in relation to its sales.
2. Lower asset turnover ratio is considered good, since it implies that receivables are collected quickly, fixed assets are heavily utilized, and little excess inventory is kept on hand.
Which of the above statements is/are correct?
Q.8 Consider the following statements with reference to Core Investment Companies:

1. These are specialized Non-Banking Financial Companies (NBFCs).
2. These companies can carry all financial activities referred to in RBI Act, 1934 but cannot accept public funds.
3. Their main business is acquisition of shares and securities with certain conditions.

Which of the above statements is/are correct?

a. 1 and 2
b. 1, 2 and 3
c. 2 and 3
d. 1 and 3

Answer: d)

Explanation: Core Investment Companies (CICs) do not carry on any other financial activity referred to in RBI Act, 1934 except investment in bank deposits, money market instruments, government securities, loans to and investments in debt issuances of group companies or guarantees issued on behalf of group companies. CICs can accept public funds.

Q.9 New Consumer Protection Bill was introduced in the parliament. Benefit to Consumers will be

a. Scope for early disposal of cases through mediation
b. Protection from adulteration of products
c. Product liability provision
d. All the above

Answer d)
4. Environment

Q.10 The following are the impacts of decreasing sea ice cover:
   1. It affects the polar ecosystem.
   2. It increases the frequency of extreme events.
   3. It increases global warming.

Select the correct answer code:
   a. 1 and 2
   b. 2 and 3
   c. 1 and 3
   d. 1, 2 and 3

Answer: d)
Explanation: All are correct.

Q.11 Consider the following statements with reference to conservation and protection of Great Indian bustard:
   1. It is protected via a Centrally Sponsored Scheme.
   2. Great Indian Bustard is listed as Endangered on the IUCN Red List

Which of the above statements is/are correct?
   a. 1 only
   b. 2 only
   c. Both 1 and 2
   d. Neither 1 nor 2

Answer: c)
Explanation: Great Indian bustard project is a Centrally Sponsored Scheme. The important objective of this is to build up a captive population of great Indian bustard and to release the chicks in the wild for increasing the population. Great Indian bustard is listed as Critically Endangered on the IUCN Red List.

Q.12 The objective of the EIA is
   1. To identify the environmental, social and economic impacts of a project prior to taking a decision on its implementation.
   2. Mitigation of harmful impacts of a project.
   3. Maximizing the beneficial effects of a project
   4. To develop the impact assessment plan post implementation of a project.

Which of the above statements is/are correct?
   a. 1, 2 and 4
   b. 1, 2 and 3
c. 1 only  
d. None of the above

Answer b)

Q.13 PPV&FR Authority is for?
  a. Protection of plant varieties  
  b. Protection of the rights of farmers and plant breeders  
  c. To encourage the development of new varieties of plants  
  d. All the above

Answer d)

5. Energy

Q.14 With reference to National Electric Mobility Mission Plan, which of the following statements is/are correct?

1. The Mission document provides the vision and the roadmap for the faster adoption of electric vehicles and their manufacturing in the country.
2. It aims to provide affordable and environmentally friendly transportation
3. FAME India Scheme is a part of National Electric Mobility Mission Plan

Select the correct answer code:

a. 1 and 2  
b. 2 and 3  
c. 1 Only  
d. 1, 2 and 3

Answer: d)

Q.15 With reference to Hydrogen-enriched Compressed Natural Gas, consider the following statements:

1. It is a hydrogen-enriched compressed natural gas, combines the advantages of both hydrogen and methane.
2. It is considered a cleaner source of fuel and offers more mileage than CNG.
3. Bengaluru will be the first city in the country to roll out Hydrogen-enriched Compressed Natural Gas (HCNG) buses for public transport.

Which of the above statements is/are correct?

a. 1 and 2  
b. 1, 2 and 3  
c. 2 and 3  
d. 1 and 3

Answer: a)

Explanation: The blending of hydrogen with CNG provides a blended gas termed as HCNG. It stands for hydrogen-enriched compressed natural gas and combines the advantages of both hydrogen and methane. HCNG may be used as a fuel of Internal Combustion Engine, is considered a cleaner source of fuel and offers more mileage than CNG. Delhi will be the first city in the country to roll out hydrogen-enriched compressed natural gas (HCNG) buses for public transport from November 2020.

Q.16 Consider the following statements with reference to SATAT initiative:

1. The initiative is aimed at providing a developmental effort that would benefit both vehicle-users as well as farmers and entrepreneurs.
2. The Compressed Biogas plants are proposed to be set up mainly through independent entrepreneurs under the initiative.

Which of the above statements is/are correct?

a. 1 Only  
b. 2 Only  
c. Both 1 and 2
d. Neither 1 nor 2

Answer: c)
Explanation: Both are correct

6. Information and Communication Technology

Q.17 With reference to RISAT-2B, consider the following statements:
   1. It is an indigenously developed Synthetic Aperture Radar Imaging Satellite
   2. Applications of X-Band SAR imagery include Hydrology, Crops, Forestry, Geosciences and Cryosphere.

Which of the above statements is/are correct?
   a. 1 Only
   b. 2 Only
   c. Both 1 and 2
   d. Neither 1 nor 2

Answer: c)
Explanation: Both are correct.

Q.18 Consider the following statements with reference to Criminal Tracking Network & Systems:
   1. It is a Mission Mode Project under the National e-Governance Plan (NeGP) of Govt. of India.
   2. It aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing through adopting of principle of e-Governance.

Which of the above statements is/are correct?
   a. 1 Only
   b. 2 Only
   c. Both 1 and 2
   d. Neither 1 nor 2

Answer: c)
Explanation: Both are correct.

Q.19 Consider the following statements with reference to National Mission on Natural Language Translation:
   1. It aims to make science and technology accessible to all by facilitating access to teaching and researching material bilingually
   2. It aims to convert the culturally significant resources of India to global languages.

Which of the above statements is/are correct?
a. 1 Only  
b. 2 Only  
c. Both 1 and 2  
d. Neither 1 nor 2  

Answer: a)  
Explanation: The Ministry of Electronics and IT is planning to launch a National Mission on Natural Language Translation. It is one of the key missions identified by the Prime Minister’s Science, Technology and Innovation Advisory Council (PM-STIAC).

7. GK and Other topics  
Q.20 The India-based Neutrino Observatory is coming up in:  
a. Tamil Nadu  
b. Maharashtra  
c. Kerala  
d. Rajasthan  

Answer: a)  
Explanation: The Government of India has approved a project to build the India-based Neutrino Observatory (INO) in Theni District of Tamil Nadu.

Q.21 Consider the following statements:  
1. Recently the city of Jodhpur has been included to the list of UNESCO World Heritage sites  
2. India has 38 world heritage sites  
Which of the above statements is/are correct?  
a. 1 Only  
b. 2 Only  
c. Both 1 and 2  
d. Neither 1 nor 2  

Answer: b)  
Explanation: Jaipur City, Rajasthan got inscribed on the World Heritage List of UNESCO during the 43rd Session of the World Heritage Committee recently. India has 38 world heritage sites, that include 30 Cultural properties, 7 Natural properties and 1 mixed site.

Q.22 The aim of Motor Vehicles (Amendment) Bill, 2019, includes,  
1. Road safety  
2. Stiffer penalties for traffic rule violations
3. Improve transparency in vehicle registration process

Select the correct answer.

a. 1 Only  
b. 2 Only  
c. Both 1 and 2  
d. All of above

Answer: d)
The bill seeks to transform Indian roads with adequate safety measures to reduce road accidents, imposing stiffer penalties for violations and weeding out corruption.