



**Anusha Learning**  
Online IAS Academy

- IAS PRELIMS 2018  
GENERAL STUDIES  
SERIES A

- Consider the following statements:

1. In the first Lok Sabha, the single largest party in the opposition was the Swatantra Party.

2. In the Lok Sabha, a “Leader of the Opposition” was recognized for the first time in 1969

3. In the Lok Sabha, if a party does not have a minimum of 75 members, its leader cannot be recognized as the Leader of the Opposition.

Which of the statements given above is/are correct?

A) 1 and 3 only

B) 2 only

C) 2 and 3 only

D) 1,2 and 3

## Leader of Opposition

- The **Leader of the Opposition** is the politician who leads the official **opposition** in either House of the Parliament of India. The **Leader of the opposition** is the parliamentary chairperson of the party with the most seats after the government party.
- In order to get formal recognition in either upper or lower houses, the concerned party must have at least 10% of the total strength of the house. A single party has to meet the 10% seat criterion, not an alliance.
- There was no leader of the **opposition** in the 16th **Lok Sabha** as the Indian Parliament rules state that a party in the **Lok Sabha** must have at least 10% (55) of the total seats(545) in order to be considered the **opposition** party.

2/A2018

- Which of the following leaf modifications occur(s) in the desert areas to inhibit water loss?
  1. Hard and waxy leaves
  2. Tiny leaves
  3. Thorns instead of leaves

Select the correct answer using the code given below:

- |                 |              |
|-----------------|--------------|
| A) 2 and 3 only | B) 2 only    |
| C) 3 only       | D) 1,2 and 3 |

## Adaptations for Deserts

- The leaves and stems of many desert plants have a thick, waxy covering. This waxy substance does not cover the stomata, but it covers most of the leaves, keeping the plants cooler and reducing evaporative loss.
- Small leaves on desert plants also help reduce moisture loss during transpiration.
- Thorns instead of leaves.

3/A2018

- As per the NSSO 70<sup>th</sup> Round “situation Assessment Survey of Agricultural Households” consider the following statements:
  1. Rajasthan has the highest percentage share of agricultural households among its rural households
  2. Out of the total agricultural households in the country, a little over 60% belong to OBCs.
  3. In Kerala, a little over 60% of agricultural households reported to have received maximum income from sources other than agricultural activities

Which of the statements given above is/are correct?

- A) 2 and 3 only                      B) 2 only  
C) 1 and 3 only                      D) 1,2 and 3

## Assessment Survey of Rural Households

- National Sample Survey Organisation, established in 1950
- Functions under the aegis of Ministry of Statistics and Programme Implementation.
- Main task to conduct socio economic surveys.
- The Census is conducted by Office of the Registrar General and Census Commissioner under Ministry of Home Affairs.



## NSSO 70<sup>th</sup> Round

- Rural India has an estimated 90.2 million agricultural households— about 57.8% of the total estimated rural households in the country.
- An agricultural household was defined in the survey as a household receiving value of produce of more than Rs.3,000 from agriculture with at least one member self-employed in farming.
- The percentage of landless households in rural India declined. Marginal landholdings rose.
- For marginal land owning families wage and salary employment was their principal source of income and not agriculture.
- Average monthly income per agricultural households around Rs. 6500. Farmers are earning less than even the person employed in the lowest rung of organized sector
- Debt levels are very high. Nearly 52% of agricultural households in India are indebted , with levels of debt as high as 90% in AP.
- Loans from Banks only 15%. Marginal landholdings households face maximum problem to access credit.
- Farm households are oblivious of crop insurance schemes
- Households are poorly informed of government procurement operations & MSP. Sale of crops is maximum to private procurement agencies.

4/A2018

- How is the National Green Tribunal (NGT) different from the Central Pollution Control Board (CPCB)?

1. The NGT has been established by an Act whereas the CPCB has been created by an executive order of the Government.

2. The NGT provides environmental justice and helps reduce the burden of litigation in the higher courts whereas the CPCB promotes cleanliness of streams and wells and aims to improve the quality of air in the country.

Which of the statements given above is/are correct?

A) 1 only

B) 2 only

C) Both 1 and 2

D) Neither 1 nor 2

## National Green Tribunal (NGT)

- The National Green Tribunal, established in 2010, as per the National Green Tribunal Act is a specialised judicial body equipped with expertise solely for the purpose of adjudicating environmental cases in the country.
- The National Green Tribunal was set up under the National Green Tribunal Act, 2010 (NGT Act). The objective of the NGT Act is to provide effective and expeditious disposal of cases relating to the protection of the environment.
- The NGT is a 'quasi-judicial body' and has limited power.
- The principal bench of the NGT is located in Delhi, with other benches sitting in Bhopal, Pune, Kolkata and Chennai.

## Central Pollution Control Board (CPCB)

- The Central Pollution Control Board (CPCB) of India is a statutory organisation under the Ministry of Environment, Forest and Climate Change (MoEF).
- It was established in 1974 under the Water (Prevention and Control of pollution) Act, 1974.
- It Co-ordinates the activities of the State Pollution Control Boards by providing technical assistance and guidance and also resolves disputes among them. It is the apex organisation in country in the field of pollution control, as a technical wing of MoEF.
- CPCB has its head office in New Delhi, with seven zonal offices and 5 laboratories. The board conducts environmental assessments and research. It is responsible for maintaining national standards under a variety of environmental laws,
- It has responsibilities to conduct monitoring of water and air quality
- It advises the central government to prevent and control water and air pollution.
- Functions of CPCB comes under both national level and as State Boards for the Union Territories. CPCB, under the Water (Prevention and Control of Pollution) Act, 1974, and the Air (Prevention and Control of Pollution) Act, 1981, aims to promote cleanliness of streams and wells in different areas of the States by prevention, control and abatement of water pollution, and to improve the quality of air and to prevent, control or abate air pollution in the country.

## National Air Quality Monitoring Programme (NAMP)

- CPCB runs nationwide programs of ambient air quality monitoring known as NAMP.
- The network consists of 621 operating stations covering 262 cities/towns in 29 states and 5 Union Territories of the country. Under NAMP, four air pollutants viz., (SO<sub>2</sub>), NO<sub>2</sub>, Suspended Particulate Matter (SPM) and Respirable Suspended Particulate Matter (RSPM/ PM<sub>10</sub>) have been identified for regular monitoring at all the locations.

## Water Quality Pollution

- Fresh water is a finite resource essential for use in agriculture, industry, propagation of wildlife & fisheries and for human existence.
- India is a riverine country. It has 14 major rivers, 44 medium rivers and 55 minor rivers besides numerous lakes, ponds and wells which are used as primary source of drinking water even without treatment.
- Most of the rivers being fed by monsoon rains, which is limited to only three months of the year, run dry throughout the rest of the year often carrying wastewater discharges from industries or cities or towns endangering the quality of our scarce water resources.
- CPCB in collaboration with concerned SPCBs/PCCs established a nationwide network of water quality monitoring, which has running 1019 stations in 27 States and 6 Union Territories.
- The monitoring process is done on quarterly basis in surface waters and on half yearly basis in case of ground water.
- It covers 200 Rivers, 60 Lakes, 5 Tanks, 3 Ponds, 3 Creeks, 13 Canals, 17 Drains and 321 Wells.
- Among the 1019 stations, 592 are on rivers, 65 on lakes, 17 on drains, 13 on canals, 5 on tanks, 3 on creeks, 3 on ponds and 321 are groundwater stations. The inland water quality monitoring network is operating under a three-tier program
  1. Global Environment Monitoring System
  2. Monitoring of Indian National Aquatic Resources
  3. System Yamuna Action Plan

## Urban area programs (Eco City Program)

- CPCB programs for urban areas, also known as *Eco City Program* comes under X Plan to improve environment through implementation of identified environmental improvement projects in the selected towns and cities.
- Pilot studies conducted for urban areas by the Centre for Spatial Environmental Planning created at the CPCB under the World Bank funded *Environmental Management Capacity Building Project* and supported by the *GTZ-CPCB Project* under the *Indo-German Bilateral Program*.
- According to these studies CPCB develop a comprehensive urban improvement system employing practical, innovative and non-conventional solutions. Under the X Plan, a budget provision of Rs. 15 crore has been made for the period 2002-03 to 2006-07 for the Ecocity projects.

- Consider the following statements:

1. The Parliament of India can place a particular law in the Ninth Schedule of the Constitution of India

2. The validity of a law placed in the Ninth Schedule cannot be examined by any court and no judgement can be made on it

Which of the statements given above is/are correct?

A) 1 only

B) 2 only

C) Both 1 and 2

D) Neither 1 nor 2



## Ninth Schedule

- The Ninth Schedule of the Constitution is where the government parks laws which it thinks should be beyond judicial review. It bars the courts, including the Supreme Court, from striking down laws on the ground that it violates fundamental rights.
- There are 284 such laws. By the First Constitution (Amendment) Act, 1951 13 laws were added to the Ninth Schedule. The Ninth Schedule now contains Union as well as State Legislations
- The Ninth Schedule was drafted by the Nehru government in 1951. It emanates from Art. 31-A and 31-B which were introduced by the Constitution (First Amendment) Act, 1951, with effect from June 18, 1951 ensure certain laws were valid even if it violated the fundamental rights of citizen.
- It was created by the new Article 31B, which along with 31A was brought in by the government to protect laws related to agrarian reform and for abolishing the Zamindari system.
- While most of the laws protected under the Schedule concern agriculture/land issues, the list includes other subjects, such as reservation.
- A Tamil Nadu law that provides 69 per cent reservation in the state is part of the Schedule.
- 284 Acts are in 9<sup>th</sup> Schedule: LAWS Relating to Agrarian land: 249; Industrial Development: 15; Economic Offences: 7; Social Welfare: 06; Elections and Press :2; Reservation Tamil Nadu: 1; PTCL: 1; Misc.: 3

6/A2018

- Which one of the following best describes the term “Merchant Discount Rate” sometimes seen in news?
  - A) The incentive given by a bank to a merchant for accepting payments through debit cards pertaining to that bank
  - B) The amount paid back by banks to their customers when they use debit cards for financial transactions for purchasing goods or services
  - C) The charge to a merchant by a bank for accepting payments from his customers through the bank’s debit cards.
  - D) The incentives given by the Government to merchants for promoting digital payments by their customers through Point Of Sale (PoS) machines and debit cards.

## Merchant Discount Rate

- The merchant discount rate is charged to merchants for processing debit and credit card transactions. To accept debit and credit cards, merchants must set up this service and agree to the rate.
- The merchant discount rate is a fee, typically between 1%-3%, that merchants must consider when managing business costs.
- MDR is the cost paid by a merchant to a bank for accepting payment from their customers via digital means. The merchant discount rate is expressed in percentage of the transaction amount.
- In December 2019, the government had announced that the MDR charges will not be applicable on transactions made through RuPay and Unified Payments Interface (UPI) platforms. The charges for these two modes of payments were removed from January 1, 2020. For now, MasterCard and Visa cards are permitted to charge MDR.

7/A2018

- What is/are the consequences of a country becoming the member of the 'Nuclear Suppliers Group'?
  1. It will have access to the latest and most efficient nuclear technologies
  2. It automatically becomes a member of 'The Treaty on the Non-Proliferation of Nuclear Weapons (NPT)'.

Which of the statements given above is/are correct?

- A) 1 only
- B) 2 only
- C) Both 1 and 2
- D) Neither 1 nor 2

## 'Nuclear Suppliers Group'

- The Nuclear Suppliers Group (NSG) is a group of nuclear supplier countries that seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of Guidelines for nuclear exports and nuclear-related exports. (that can be used to manufacture nuclear weapons.)
- 48 suppliers states
- The US created the NSG, after India's 1974 nuclear test, solely to deny advanced technology to India, and isolate and contain India. China became a member only in 2004. Thus, at one level, making India a member would undercut the very objective of creating the NSG.
- Four UN member states have never accepted the NPT, three of which possess or are thought to possess nuclear weapons: India, Israel, and Pakistan. In addition, South Sudan, founded in 2011, has not joined.

8/A2018

- With reference to India's decision to levy an equalization tax of 6% on online advertisement services offered by non-resident entities, which of the following statements is/are correct?

1. It is introduced as a part of the Income Tax Act.

2. Non-resident entities that offer advertisement services in India can claim a tax credit in their home country under the 'Double Taxation Avoidance Agreements'

Select the correct answer using the code given below:

A) 1 only

B) 2 only

C) Both 1 and 2

D) Neither 1 nor 2

## levy an equalization tax of 6% on online advertisement

- The equalisation levy of 6% is aimed at taxing business-to-business transactions in the digital advertising space - that is, the income accruing to foreign ecommerce companies from within India.
- It's a direct tax which is withheld at the time of payment by the recipient of the services
- It is a way to indirectly tax companies such as Google and Facebook
- The 'equalisation' happens because the government is supposedly levelling the playing field and making companies such as Google and Facebook pay for the money they make from local advertisers.
- The nub of the issue is that multi-national digital platforms don't have "permanent establishments" in the country, which would make them liable to pay tax in India. And they cannot also be double-taxed, which means that the government has had to find a way of earning something from the profits that these platforms have been making.
- Google's revenue from India was Rs 4,108 crore in 2014-15, according to disclosures by the company. Facebook's top line was Rs 123.5 crore in the same period.

- Consider the following statements:

1. The Fiscal Responsibility and Budget Management (FRBM) Review Committee Report has recommended a debt to GDP ratio of 60% for the general (combined) government by 2023, comprising 40% for the Central and 20% for the State Govt.

2. The Central Government has domestic liabilities of 21% of GDP as compared to that of 49% of GDP of the State Govt.

3. As per the Constitution of India, it is mandatory for a State to take the Central Government's consent for raising any loan if the former owes any outstanding liabilities to the latter.

Which of the statements given above is/are correct?

- A) 1 only                      B) 2 and 3 only  
C) 1 and 3 only              D) 1, 2 and 3



## FRBM Review Committee Report

- In May 2016, the government set up a committee under NK Singh to review the FRBM Act.
- The committee recommended that the government should target a fiscal deficit of 3 per cent of the GDP in years up to March 31, 2020 cut it to 2.8 per cent in 2020-21 and to 2.5 per cent by 2023.
- The Committee suggested using debt as the primary target for fiscal policy. A debt to GDP ratio of 60% should be targeted with a 40% limit for the centre and 20% limit for the states. This ratio is expected to be around 70% in 2017.

## Article 293(3)

- Article 293(3) of the Constitution requires states to obtain the Centre's consent in order to borrow in case the state is indebted to the Centre over a previous loan. Every single state is currently indebted to the Centre and thus, all of them require the Centre's consent in order to borrow.
- The Finance Ministry has allowed all states to borrow a cumulative Rs 3.20 lakh crore from market between April-December. The move comes amid states' demand for higher funds from the Centre to meet the expenses in dealing with COVID-19 pandemic.
- the Centre has decided to permit states to raise open market borrowing on the basis of 50 per cent the Net Borrowing Ceiling fixed for the year 2020-21 for financing the states's annual plan for the fiscal.

- Consider the following statements:
  1. The quantity of imported edible oils is more than the domestic production of edible oils in the last five years.
  2. The Government does not impose any custom duty on all the imported edible oils as a special case.

Which of the statements given above is/are correct?

- A) 1 only                      B) 2 only  
C) Both 1 and 2              D) Neither 1 nor 2

## Edible oil imports

- India annually imports around 15 million tonnes of edible oils, including more than 9 million tonnes of palm oil and about 2.5 million tonnes each of soy oil and sunflower oil.
- It buys palm oil from **Indonesia** and **Malaysia** and other oils, such as soy and sunflower oil, from Argentina, Brazil, Ukraine and Russia
- Palm oil forms a major share of the edible oil consumed by Indians, with second most consumed oil being **Soya bean Oil**. Together both sum up to ~65 % to 75 % of our consumption.
- **India does not even produce half of its edible oil requirements**, mainly due to rainfed conditions, high seed cost, smallholding with limited resources, low seed replacement rate, and low productivity.
- Also, it is expected that **edible oils** from secondary sources will be doubled from 3.5 to 7 million tonnes.

- Production of oil 2016:

Thousand Metric Tons of oilseeds

Tamil Nadu	919
Andhra Pradesh	873
Karnataka.	867
Uttar Pradesh.	864

- He wrote biographies of Mazzini, Garibaldi, Shivaji and Shrikrishna; stayed in America for some time; and was also elected to the Central Assembly. He was

- A) Aurobindo Ghosh
- B) Bipin Chandra Pal
- C) Lala Lajpat Rai
- D) Motilal Nehru

## Aurobindo Ghosh 1872-1950

- Sri Aurobindo was an Indian philosopher, yogi, guru, poet, and nationalist.
- Education should create dynamic citizen so that they are able to meet the needs of modern complex life. According to him, physical development and holiness are the chief aims of education
- He joined the Indian movement of Independence, later he became a spiritual reformer, introducing his vision on human progress and spiritual evolution
- He was associated with Anushilan Samiti.
- He was tried for treason for Alipore Conspiracy could not be found guilty
- He moved to Pondicherry leaving politics

## Aurobindo Ghosh

- At Pondicherry, Sri Aurobindo developed a spiritual practice he called Internal Yoga.
- The central theme of his vision was the evolution of human life into a divine life. He believed in a spiritual realisation that not only liberated but transformed human nature, enabling a divine life on earth.
- In 1926, with the help of his spiritual collaborator, Mirra Alfassa (referred to as "The Mother"), he founded the Sri Aurobindo Ashram.
- His main literary works are *The Life Divine*, which deals with theoretical aspects of Integral Yoga; *Synthesis of Yoga*, which deals with practical guidance to Integral Yoga; and *Savitri: A legend and a symbol*, an epic poem.

## Bipin Chandra Pal

- Bipin Chandra Pal was an Indian nationalist, writer, orator, social reformer and Indian independence movement activist.
- He was one of the main architects of Swadeshi Movement .
- He stood against the partition of Bengal
- Pal is known as the *Father of Revolutionary Thoughts* in India and was one of the freedom fighters of India. Pal became a major leader of the Indian National Congress.
- At the Madras session of Indian National Congress held in 1887, Bipin Chandra Pal made a strong plea for repeal of the Arms Act which was discriminatory in nature.
- He opposed caste system and advocated widow remarriage.



## Lala Lajpat Rai 1865-1928

- Lala Lajpat Rai was an Indian freedom fighter. He played a pivotal role in the Indian Independence movement
- He was popularly known as *Punjab Kesari*.
- He was also associated with activities of Punjab National Bank and Lakshmi Insurance Company in their early stages in 1894.
- He was influenced by the Hindu reformist movement of Swami Dayanand Saraswati
- In October 1917, he founded the Indian Home Rule League of America in New York. He stayed in the United States from 1917 to 1920.
- After joining the Indian National Congress and taking part in political agitation in Punjab, Lala Lajpat Rai was deported to Mandalay, Burma (now Myanmar), without trial in May 1920
- He was elected President of the Indian National Congress in the Calcutta Special Session of 1920.
- In 1921, he founded Servants of the People Society, a non-profit welfare organisation, in Lahore, which shifted its base to Delhi after partition, and has branches in many parts of India.
- According to him, Hindu society needs to fight its own battle with caste system, position of women and untouchability
- Lala Lajpat Rai approved that the lower caste should be allowed to read them and recite the mantras. He believed that everyone should be allowed to read and learn from the Vedas

## Motilal Nehru. 1861-1931

- Pt. Motilal Nehru was an Indian lawyer, activist and politician belonging to the Indian National Congress
- He founded daily newspaper The Independent.
- The massacre of hundreds Indians by the British at Amritsar in 1919 prompted Motilal to join Mahatma Gandhi's Noncooperation Movement, giving up his career in law
- In 1923 Motilal helped found the Swaraj Party (1923-27) the policy of which was to win election to the Central Legislative Assembly and obstruct its proceedings from within.
- In 1928 he wrote the Congress Party's Nehru Report, a future constitution for independent India based on the granting of dominion status. After the British rejected these proposals, Motilal participated in the civil disobedience movement of 1930 that was related to the Salt March, for which he was imprisoned. He died soon after release.

- Consider the following statements:

1. Aadhaar card can be used as a proof of citizenship or domicile
2. Once issued, Aadhaar number cannot be deactivated or omitted by the issuing Authority

Which of the statements given above is/are correct?

- A) 1 only
- B) 2 only
- C) Both 1 and 2
- D) Neither 1 nor 2

## Aadhar Card

- It is a 12-digit unique number issued by the Unique Identification Authority of India (UIDAI) by taking into account a person's biometric details such as iris scan and fingerprints, and demographic information like date of birth and address.
- According to the Supreme Court's judgement on Aadhaar, it is not mandatory to link your Aadhaar number with various financial services such as bank account, mutual funds etc. However, it is still mandatory to link your PAN with Aadhaar or quote your Aadhaar number while filing income tax returns (ITR) or applying for a new PAN card.
- **Aadhaar** is the world's largest biometric ID system. Considered a **proof of residence** and not a **proof of citizenship**, **Aadhaar** does not itself grant any rights to domicile in India.

## Aadhar Card Deactivation

- The primary reason for Aadhar Card to get deactivated is non-usage. If it is not used for three consecutive years- for example, not linked it with any service, or or any transactions, it might get deactivated.
- In case of Aadhaar for children, the condition is that their information such as biometrics must be upgraded once when they attain the age of 5, and again at the age of 15. Failure to do so might also lead to deactivation of Aadhaar.
- Other reasons for Aadhaar de-activation include mixed or unreliable biometrics, and multiple names under single Aadhaar account.

## Aadhar Card Number

- Aadhaar is a 12-digit identification number the UIDAI issues to the residents of India.
- However, once generated, there is no process to cancel or surrender Aadhaar, even after the death of a person.
- Also, there is no provision to even update information about a holder's death in the Aadhaar database.

- Which of the following has/have shrunk immensely/dried up in the recent past due to human activities?

1. Aral Sea
2. Black sea
3. Lake Baikal

Select the correct answer using the code given below:

- |           |            |
|-----------|------------|
| A) 1 only | B) 2 and 3 |
| C) 2 only | D) 1 and 3 |

## Aral Sea

- Aral Sea was there between Kazakhstan and Uzbekistan
- The Aral Sea has been shrinking since the 1960s after the rivers that fed it were diverted by Soviet irrigation projects
- By 1997, it had declined to 10% of its original size,
- The shrinking of the Aral Sea has been called "one of the planet's worst environmental disasters".
- The region's once-prosperous fishing industry has been devastated, bringing unemployment and economic hardship.



## Black sea

- The **Black Sea** is a body of water and marginal sea of the Atlantic Ocean between Eastern Europe, the Caucasus, and Western Asia.
- The sea was first named by the ancient Greeks who called it "Inhospitable Sea." The sea got this reputation because it was difficult to navigate, and hostile tribes inhabited its shores.
- The **Black Sea** has a depth of over 150 meters, and its waters are filled with hydrogen sulphide for almost two km.
- The water is saltwater but less salty than the ocean. During the last ice age, the **Black Sea** was a freshwater lake.

## Lake Baikal

- **Lake Baikal** is a rift lake located in southern Siberia, Russia, between Irkutsk Oblast to the northwest and the Buryat Republic to the southeast.
- Lake Baikal is the largest freshwater lake by volume in the world, containing 22-23% of the world's fresh surface water. It is oldest lake and also clearest.
- It contains more water than the North American Great Lakes combined
- It is the world's deepest lake. Maximum depth 1642M Average depth 744M
- Baikal is home to thousands of species of plants and animals, many of which are endemic to the region
- The lake was declared a UNESCO World Heritage Site.

- “Rule of Law Index” is released by which of the following?
  - A) Amnesty International
  - B) International Court of Justice
  - C) The Office of Un Commissioner for Human Rights
  - D) World Justice Project

## Rule of Law Index

- The World Justice Project has developed an Index to measure the extent to which countries adhere to the rule of law in practice.
- The WJP Rule of Law Index is composed of 9 factors and 52 sub-factors, and covers a variety of dimensions of the rule of law - such as whether government officials are accountable under the law, and whether legal institutions protect fundamental rights and allow ordinary people access to justice
- The **Rule of Law Index, 2019** measures “how the rule of law is experienced and perceived by the general public.”
- On this Index, India ranks 68 out of 126 countries, down 3 places from last year.

## Rule of Law Index of India

- Overall Score: 0.51  
India Ranked 69<sup>th</sup> Across 128 Countries, 2020

Factor	India's score	Global Rank	Global Average
Constraints on Government powers	0.61	41/128	0.55
Absence of Corruption	0.42	85/128	0.52
Open Government	0.61	32/128	0.52
Fundamental Rights	0.51	84/128	0.57
Order and security	0.59	114/128	0.72
Regulatory enforcement	0.49	74/128	0.54
Civil Justice	0.45	98/128	0.55
Criminal Justice	0.40	78/128	0.47

## Rule of Law Index

- The World Justice Project Rule of Law Index is a quantitative assessment tool designed to offer a detailed and comprehensive picture of the extent to which countries adhere to the rule of law in practice.
- The World Justice Project(WJP) is an international civil society organization with the stated mission of "working to advance the rule of law around the world".
- The rule of law is defined in the as: "The authority and influence of Law in society, especially when viewed as a constraint on individual and institutional behaviour; (hence) the principle whereby all members of a society (including those in government) are considered equally subject to publicly disclosed legal codes and processes."

## World Justice Project

- The rule of law refers to a rules-based system in which the following four universal principles are upheld:
- The government and its officials and agents are accountable under the law;
- The laws are clear, publicized, stable, fair, and protect fundamental rights, including the security of persons and property;
- The process by which the laws are enacted, administered, and enforced is accessible, fair, and efficient;
- Access to justice is provided by competent, independent, and ethical adjudicators, and judicial officers who are of sufficient number, have adequate resources, and reflect the makeup of the communities they serve.

- Which one of the following links all ATMs in India?
  - A) Indian Banks' Association
  - B) National Securities Depository Limited
  - C) National Payments Corporation of India
  - D) Reserve Bank of India



## NPCI

- National Payments Corporation of India (NPCI) is an umbrella organization for all retail payments in India. It was set up with the guidance and support of the Reserve Bank of India (RBI) and Indian Banks Association (IBA).
- Founded in 2008, the NPCI is a not-for-profit organisation registered under section 8 of the Companies Act 2013, established by Reserve Bank of India & IBA. The organisation is owned by a consortium of major banks, and has been promoted by the country's central bank, the Reserve Bank of India.
- National Payments Corporation of India (NPCI) is the apex authority for maintaining a nationwide link of all the ATMs in India.
- ATM was designed, developed and deployed by the Institute for Development and Research in Banking Technology (IDRBT) in 2004, with the goal of inter-connecting the ATMs in the country and facilitating convenience banking

- Consider the following statements:

1. Capital Adequacy Ratio (CAR) is the amount that banks have to maintain in the form of their own funds to offset any loss that banks incur if the account holders fail to repay dues.
2. CAR is decided by each individual bank

Which of the statements given above is/are correct?

- |                 |                    |
|-----------------|--------------------|
| A) 1 only       | B) 2 only          |
| C) Both 1 and 2 | D) Neither 1 nor 2 |

## Capital Adequacy Ratio (CAR)

- The capital adequacy ratio (CAR) is a measurement of a bank's available capital expressed as a percentage of a bank's risk-weighted credit exposures.
- The capital adequacy ratio (CAR) measures the amount of capital a bank retains compared to its risk. The CAR is important to shareholders because it is an important measure of the financial soundness of a bank.
- Under Basel III, the minimum capital adequacy ratio that banks must maintain is 8%.
- Tier 1 capital is the primary funding source of the bank. Tier 1 capital consists of shareholders' equity and retained earnings. Tier 2 capital includes revaluation reserves, hybrid capital instruments and subordinated term debt, general loan-loss reserves, and undisclosed reserves.

- The identity platform “Aadhaar” provides open “Application Programming Interfaces (APIs)  
What does it imply?

1. It can be integrated into any electronic device
2. Online authentication using iris is possible.

Which of the statements given above is/are correct?

- A) 1 only
- B) 2 only
- C) Both 1 and 2
- D) Neither 1 nor 2

## “Application Programming Interfaces” (APIs)

- An application programming interface (API) is a computing interface which defines interactions between multiple software intermediaries. It defines the kinds of calls or requests that can be made, how to make them, the data formats that should be used, the conventions to follow, etc.
- When we use an application on our mobile phone, the application connects to the Internet and sends data to a server. The server then retrieves that data, interprets it, performs the necessary actions and sends it back to our phone.
- Application Program Interfaces, (more commonly known as "APIs"), are used to connect two different databases or software programs.

- Very recently, in which of the following countries have lakhs of people either suffered from severe famine/ acute malnutrition or died due to starvation caused by war/ ethnic conflicts?
  - A) Angola and Zambia
  - B) Morocco and Tunisia
  - C) Venezuela and Colombia
  - D) Yemen and South Sudan

## South Sudan

- Republic of South Sudan is a landlocked country in East-Central Africa.
- It gained independence from the Republic of the Sudan in 2011.
- It's capital and largest city is Juba.
- South Sudan has a population of 12 million
- A civil war started in 2013 and is continuing
- Ugandan troops were deployed to fight alongside South Sudanese government forces against the rebels. The United Nations has peacekeepers in the country
- About 400,000 people are estimated to have been killed in the war, including notable atrocities such as the 2014 Bentiu massacre.

- Regarding Wood's Dispatch, which of the following statements are true?

1. Grants-in-Aid system was introduced
2. Establishment of Universities was recommended
3. English as a medium of instruction at all levels of education was recommended

Select the correct answer using the code given below:

- |                 |                 |
|-----------------|-----------------|
| A) 1 and 2 only | B) 2 and 3 only |
| C) 1 and 3 only | D) 1,2 and 3    |



## Wood's Dispatch

- Wood's Despatch is the event observed in History of India under British Rule. Sir Charles Wood was the President of Board of Control of the British East India Company. In 1854 he sent the Despatch to the then Governor Lord Dalhousie regarding the education in India.
- Woods suggested that primary schools must adopt vernacular languages, high schools must adopt Anglo-vernacular language and at college-level English should be the medium of education.
- The Despatch recommended the promotion of mass education by establishing schools, both public of and private. The Wood's Despatch recommended the establishment of three universities in the Presidency towns of Calcutta, Bombay and Madras on the model of the London University.
- **Wood's Despatch is called Magna-Carta of English Education in India** because it professed the promotion of the western education in India.
- It suggested constitution of Separate Department for the Administration of Education.
- At least one government school be opened in every district.
- Affiliated private schools should be given grant in aid.

- With reference to the Parliament of India, which of the following Parliamentary Committees scrutinizes and reports to the House whether the powers to make regulations, rules sub-rule, by-laws, etc. confirmed by the Constitution or delegated by the Parliament are being properly exercised by the Executive with in the scope of such delegation?
  - A) Committee on Government Assurances
  - B) Committee on Subordinate Legislature
  - C) Rules Committee
  - D) Business Advisory Committee

## Committee on Subordinate Legislation

- The functions of the **Committee on Subordinate Legislation** are to scrutinize and report to the House whether the powers to make regulations, rules, sub-rules, bye-laws etc. conferred by the Constitution or **delegated** by Parliament are being properly exercised within such delegation.
- For the first time the Committee was constituted in December, 1953 and has been constituted since then from year to year.
- The Committee on Subordinate Legislation examine all Regulations, Rules, Sub-rules, Bye-laws, etc. commonly known as 'Orders', whether laid on the Table of the House or not, framed in pursuance of the provisions of the Constitution or a statute delegating power to a subordinate authority, to make such Orders.

## Committee on Government Assurances

- During the course of reply given to a question or a discussion, if a Minister gives an undertaking which involves further action on the part of the Government in reporting back to the House, it is called an 'assurance'.
- The term of the **Committee** is one year, from the date of its constitution. **Functions and Duties:-** The functions of the **Committee on Government Assurances** are to scrutinize the assurances, promises, undertakings etc., given by the ministers, from time to time on the floor of the House
- In the Lok Sabha, it consists of 15 members and in the Rajya Sabha, it consists of 10 members. It was constituted in 1953.

## Committee on Government Assurances

- The Lok Sabha Secretariat examines the Lok Sabha debates to mark the replies/statements of the Ministers which constitute assurances. Similar process is followed in the Rajya Sabha.
- This data is reconciled with the assurances culled out by the Ministry of Parliamentary Affairs. Once they are finalized, the relevant Ministries/Departments are appraised of these assurances.
- The parliamentary committee on Government Assurances has prescribed an outer limit of three months for the implementation of an assurance, to be calculated from the date of its being given in the House.

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- Consider the following statements:
  1. As per the Right to Education (RTE) Act, to be eligible for appointment as a teacher in a state, a person would be required to possess the minimum qualification laid down by the concerned State Council of Teacher Education
  2. As per the RTE Act, for teaching primary classes, a candidate is required to pass a Teacher Eligibility Test conducted in accordance with the National Council of Teacher Education guidelines.
  3. In India, more than 90% of teacher education institutions are directly under the State Governments.

Which of the statements given above is/are correct?

- A) 1 and 2                      B) 2 only  
C) 1 and 3                      D) 3 only

## Right to Education Act

- The Right to Education Act 2009, also known as the RTE Act 2009, was enacted by the Parliament of India on 4 August 2009.
- It describes modalities of the importance of free and compulsory education for children aged between 6-14 years in India under Article 21 (A) of the Constitution of India.
- This act came into effect on 1 April 2010
- The Right to Education Act 2009 maps out roles and responsibilities for the centre, state and all local bodies to rectify gaps in their education system in order to enhance the quality of education in the country.

## Right to Education Act

- It is obligatory for the Government to provide free and compulsory elementary education to each and every child, in a neighbourhood school within 1 km, up to class 8 in India.
- Free education also includes the provisions of textbooks, uniforms, stationery items
- The Right to Education Act lays down norms and standards relating to Pupil-Teacher-Ratios (number of children per teacher), classrooms, separate toilets for girls and boys, drinking water facility, number of school-working days, working hours of teachers, etc. Each and every elementary school (Primary school + Middle School) in India has to comply with these set of norms to maintain a minimum standard set by the Right to Education Act.



## Right to Education Act

- The Right to Education Act mandates that an out of school child should be admitted to an age appropriate class and provided with special training to enable the child to come up to age appropriate learning level.
- The specified Pupil-Teacher-Ratio is maintained in every school
- The Right to Education Act 2009 prohibits all kinds of physical punishment and mental harassment, discrimination based on gender, caste, class and religion.
- The Right to Education Act 2009 provides for development of curriculum, which would ensure the all-round development of every child. Build a child's knowledge, human potential and talent.

## Right to Education Act

- The Right to Education Act mandates that no child can be held back or expelled from school till Class 8.
- The Right to Education Act introduced the Continuous Comprehensive Evaluation (CCE) system in 2009 to ensure grade appropriate learning outcomes in schools.
- The Right to Education Act is justiciable and is backed by a Grievance Redressal (GR) mechanism that allows people to take action against non-compliance of provisions of the Right to Education Act 2009.
- The Right to Education Act 2009 mandates for all private schools to reserve 25 per cent of their seats for children belonging to socially disadvantaged and economically weaker sections

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- Consider the following pairs:

TRADITION

1. Chapchar Kut festival
2. Khongjom Parba balled
3. Thang-Ta dance

STATE

- Mizoram  
Manipur  
Sikkim

Which of the pairs given above is/are correct?

- A) 1 only  
C) 3 only

- B) 1 and 2  
D) 2 and 3

## Chapchar Kut festival

- The **Chapchar Kut** is a festival of Mizoram, India. It is celebrated during March after completion of their most arduous task of jhum operation i.e., jungle-clearing (clearing of the remnants of burning).
- It is a spring festival celebrated with great fever and gaiety.
- Chapchar Kut literally means - a festival held during the period when the bamboos and trees that have been cut down are being awaited to dry to be burnt for jhumming.

## Khongjom Parba balled

- Khongjom Parva is a traditional musical art of Manipur that involves ballad singing accompanied with the sounds of a dholak or drum.
- Khongjom Parva is a ballad singing tradition that has been existing over the past one hundred and twenty two years in Manipur
- Ballad is a form of narrative poem or song that tells a story of the heroic deed of a legendary figure or an event in certain period of history. A ballad poet draws his material from community life, from local and national history of war, love, death and the supernatural.
- In Manipur's context, the ballad 'Khongjom Parba' is a narrative on the heroic deeds of Manipuri warriors who fought the imperialistic British forces in 1891 A.D. in safeguarding the freedom of the then Manipur kingdom.

## Thang-Ta dance

- Thang Ta--"The Art of the Sword and Spear"-- is the traditional martial art of Manipur in Northeast India. It integrates various external weapons - the sword, spear, dagger, etc. - with the internal practice of physical control through soft movements coordinated with the rhythms of breathing. It is part of the great heroic tradition of Manipur.
- The proper name for Thang-Ta is HUYEN LALLONG ("method of safeguarding")
- The martial dancers of Manipur - the Thang-ta - have their origins in the days when man's survival depended on his ability to defend himself from wild animals.
- Manipur has an evolved and sophisticated repertoire of martial dances, the dancers use swords, spears and shields. Real fight scenes between the dancers show an extensive training and control of the body.

- Consider the following statements:

1. The Food Safety and Standards Act, 2006 replaced the Prevention of Food Adulteration Act, 1954.
2. The Food Safety and Standards Authority of India (FSSAI) is under the charge of Director General of Health Services in the Union Ministry of Health and Family Welfare.

Which of the statements given above is/are correct?

- A) 1 only                      B) 2 only  
C) Both 1 and 2            D) Neither 1 nor 2

## The Food Safety and Standards Act, 2006

- An Act to consolidate the laws relating to food and to establish the **Food Safety and Standards Authority of India** for laying down science based **standards** for articles of food and to regulate their manufacture, storage, distribution, sale and import, to ensure availability of **safe and wholesome food** for human.
- Food Safety and Standards Authority of India (**FSSAI**) is an autonomous body established under the Ministry of Health & Family Welfare, Government of India. The **FSSAI** has been established under the Food Safety and Standards Act, 2006, which is a consolidating statute related to food safety and regulation in India.



## Food Safety Standards

- **Food safety standards** refer to the formal documents containing the **requirements** that foods or **food processors** have to comply with to safeguard human health. They are implemented by authorities and enforced by law; and are usually developed and published under the auspices of a national **standards body**.
- The core messages of the **Five Keys to Safer Food** are: (1) keep clean; (2) separate raw and cooked; (3) cook thoroughly; (4) keep **food** at **safe** temperatures; and (5) use **safe** water and raw materials.

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- The term 'two-state solution' is sometimes mentioned in the news in the context of the affairs of
  - A) China
  - B) Israel
  - C) Iraq
  - D) Yemen

## Two State Solution

- The **two-state solution** to the Israeli-Palestinian conflict envisages an independent **State of Palestine** alongside the **State of Israel**, west of the **Jordan River**.
- Some **Palestinians** want a two-state solution where the **West Bank** and the **Gaza Strip** form a distinct **Palestinian state**, whereas other **Palestinians** want a one-state solution (**Palestinian** or **binational**) with equal rights for all citizens whether they are **Muslims**, **Christians** or **Jews**.
- In 1947, the **United Nations Partition Plan for Palestine** was voted. This triggered the **1947-1949 Palestine war** and led, in 1948, to the establishment of the **state of Israel** on a part of **Mandate Palestine** as the **Mandate** came to an end.

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- With reference to the provisions made under the National Food Security Act, 2013, consider the following statements:
  1. The families coming under the category of 'below poverty line (BPL)' only are eligible to receive subsidized food grains
  2. The eldest woman in a household, of age 18 years or above, shall be the head of the household for the purpose of issuance of a ration card
  3. Pregnant women and lactating mothers are entitled to a 'take-home ration' of 1600 calories per day during pregnancy and for six months thereafter.

Which of the statements given above is/are correct?

- A) 1 and 2
- B) 2 only
- C) 1 and 3
- D) 3 only

## National Food Security Act, 2013

- National Food Security Act. The National Food Security Act, 2013 was notified on 10th September, 2013 with the objective to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity.
- The National Food Security Act, 2013 (NFSA 2013) converts into legal entitlements for existing food security programmes of the Government of India.
- It includes the Midday Meal Scheme, Integrated Child Development Services scheme and the Public Distribution System.
- The National Food Security Act, 2013 (also Right to Food Act) is an Act of the Parliament of India which aims to provide subsidized food grains to approximately two thirds of India's 1.2 billion people.
- It was signed into law on 12 September 2013, retroactive to 5 July 2013.
- Coverage and entitlement under Targeted Public Distribution System (TPDS) : Upto 75% of the rural population and 50% of the urban population will be covered under TPDS, with uniform entitlement of 5 kg per person per month.

- India enacted The Geographical Indications of Goods (Registration and Protection) Act, 1999 in order to comply with the obligations to
  - A) ILO
  - B) IMF
  - C) UNCTAD
  - D) WTO

## The Geographical Indications of Goods (Registration and Protection) Act, 1999

- **Registration of Geographical Indications:**  
This Act seeks to provide for the registration and better protection of geographical indications relating to goods in India.
- The Act would be administered by the Controller General of Patents, Designs and Trade Marks- who is the Registrar of Geographical Indications.
- The Geographical Indications Registry would be located at Chennai.
- The Act has come into force with effect from 15th September 2003.

- Consider the following statements:

1. In India, State Governments do not have the power to auction non-coal mines
2. Andhra Pradesh and Jharkhand do not have gold mines
3. Rajasthan has iron ore mines

Which of the statements given above is/are correct?

- |            |           |
|------------|-----------|
| A) 1 and 2 | B) 2 only |
| C) 1 and 3 | D) 3 only |



## Iron Ore Mines

- SAIL to invest around Rs 800 cr to develop Bhilwara mine
- The Bhilwara mine would help SAIL to partially meet its increased iron ore need as the company raises its steel-making capacity to 24 mtpa by next year from 14 mtpa at present. It generally requires 1.6 tonnes of iron ore for producing every tonnes of steel.
- Gold Mines: Karnataka, Jharkhand and Utter Pradesh  
Lead Mines: Odisha  
Uranium: Jharkhand, AP,  
Petroleum: Assam, Gujarat, AP, Maharashtra  
Bauxite: Odisha, Madhya Pradesh, Chhattisgarh,  
Jharkhand, Gujarat

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- With reference to digital payments, consider the following statements:

1. BHIM app allows the user to transfer money to anyone with a UPI-enabled bank account
2. While a chip-pin debit card has four factors of authentication, BHIM app has only two factors of authentication

Which of the statements given above is/are correct?

- |                 |                    |
|-----------------|--------------------|
| A) 1 only       | B) 2 only          |
| C) Both 1 and 2 | D) Neither 1 nor 2 |

## BHIM App Authentication

- Bharat Interface for Money (**BHIM**) is a payment app that lets you make simple, easy and quick transactions using Unified Payments Interface (**UPI**). one can make direct bank payments to anyone on **UPI** using their **UPI ID** or scanning their QR with the **BHIM** app. One can also request money through the app from a **UPI ID**.
- **UPI** is the platform while **BHIM** is a separate mobile wallet app, similar to Paytm, Mobikwik, Freecharge and others.
- Coming to the **BHIM** app, it's a unified app based on **UPI** which can be synced to any of the **UPI**-enabled bank accounts. However, only one **UPI**-enabled account can be added to **BHIM** and not multiple.

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- Among the following cities, which one lies on a longitude closest to that of Delhi?
  - A) Bengaluru
  - B) Hyderabad
  - C) Nagpur
  - D) Pune

## Longitude of Delhi

- Latitudes represents north-south location  
Longitude represents east -west location
- When **writing** latitude and longitude, **write** latitude first, followed by a comma, and then longitude.
- It easy to remember which is which if you think of the two coordinates in alphabetical terms: **latitude comes before longitude** in the dictionary.
- India's longitude and latitude  $20.5937^{\circ}$  N,  $78.9629^{\circ}$  E

- International Labour Organization's Conventions 138 and 182 are related to
  - A) Child Labour
  - B) Adaptation of agricultural practices to global climate change
  - C) Regulation of food prices and food security
  - D) Gender parity at the workplace

## International Labour Organization's Conventions 138 and 182 are related to

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- The two ILO Conventions on child labour are Convention No.138 on Minimum Age and Convention No. 182 on the Worst Forms of Child Labour. These Conventions are “fundamental” Conventions.
- Fundamental means all ILO member States have an obligation to respect, promote and realize the abolition of child labour , even if they have not ratified the Conventions in question.
- A majority of countries have now adopted legislation to prohibit or place severe restrictions on the employment and work of children, much of it following ratification of the child labour Conventions. In spite of these efforts, child labour continues to exist on a massive scale, sometimes in appalling conditions, particularly in the developing world. This is because child labour is an immensely complex issue.

- Regarding Money Bill, which of the following statements is not correct?
  - A) A bill shall be deemed to be a Money Bill if it contains only provisions relating to imposition, abolition, remission, alteration or regulation of any tax.
  - B) A Money Bill has provisions for the custody of the Consolidated Fund Of India or the Contingency Fund of India
  - C) A Money Bill is concerned with the appropriation of moneys out of the Contingency Fund of India
  - D) A Money Bill deals with the regulation of borrowing of money or giving of any guarantee by the Government of India.



## Money Bill

- **Money Bill** deals solely with matters specified in article 110(1) (a) to (g) of the Constitution,
- while a **Financial Bill** does not exclusively deal with all or any of the matters specified in the said article that is to say it contains some other provisions also.
- Article 109 and 110 deals with **Money bill**. Article 107 and 108 deals with **Non-money bill**. A **Money bill** can be introduced in only Lok Sabha. An ordinary bill can be introduced in any house of the parliament. The **Money bill** can't be introduced without the recommendation of the President.
- **Financial bill (II)** can be introduced in either House of parliament and recommendation of the **President** is not necessary for its introduction. Both the houses have power to reject or amend the **bill**.

- With reference to the election of the President of India, consider the following statements:

1. The value of the vote of each MLA varies from State to State

2. The value of the vote of MPs of the Lok Sabha is more than the value of the vote of MPs of the Rajya Sabha

Which of the statements given above is/are correct?

A) 1 only

B) 2 only

C) Both 1 and 2

D) Neither 1 nor 2

## President of India Election

- The President is indirectly elected by means of an electoral college consisting of the elected members of the Parliament and the Legislative Assemblies and Union territories of Delhi and Puducherry
- The number and value of votes are based on the population in 1971 rather than the current population, as a result of the 42<sup>nd</sup> Amendment, and extended by the 84th Amendment
- Value of an MLA vote is equal to Total population of the state divided (by number of elected members of the State Legislative Assembly multiplied by 1000)
- Value of MP vote is equal to The sum of vote value of elected members of all the state legislative assemblies divided by the sum of elected members of both the houses of Parliament

- In the Indian context, what is the implication of ratifying the 'Additional Protocol' with the 'International Atomic Energy Agency(IAEA)?
  - A) The civilian nuclear reactors come under IAEA safeguards
  - B) The military nuclear installations come under the inspection of IAEA
  - C) The country will have the privilege to buy uranium from the Nuclear Suppliers Group (NSG).
  - D) The country automatically becomes a member of the NSG

## ‘International Atomic Energy Agency(IAEA) Additional Protocol

- The **Additional Protocol** is not a stand-alone agreement, but rather a **protocol** to a safeguards agreement that provides **additional** tools for verification. In particular, it significantly increases the **IAEA's** ability to verify the peaceful use of all nuclear material in States with comprehensive safeguards agreements.
- The **International Atomic Energy Agency (IAEA)** is an international organization that seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.
- The main functions of the **IAEA** are to: encourage and assist research, development and practical application of atomic energy for peaceful uses throughout the world; establish and administer safeguards designed to ensure that such activity assisted by the Agency is not used to further any military purpose

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- Consider the following countries:
  1. Australia
  2. Canada
  3. China
  4. India
  5. Japan
  6. USA

Which of the above are among the 'free-trade partners' of ASEAN?

- A) 1,2,4 and 5                      B) 3,4,5,and 6  
C) 1,3,4 and 5                      D) 2,3,4 and 6

## ASEAN Trade Partners

- ASEAN has five free trade agreements (FTAs) with six Dialogue Partners, namely **China, Japan, Republic of Korea, India, and Australia and New Zealand.**
- The **ASEAN Free Trade Area (AFTA)** is a trade bloc agreement by the Association of Southeast Asian Nations supporting local trade and manufacturing in all **ASEAN** countries, and facilitating economic integration with regional and international allies.
- The AFTA agreement was signed on 28 January 1992 in Singapore.

- With reference to the 'Global Alliance for Climate-Smart Agriculture (GACSA)', which of the following statements is/are correct?
  1. GACSA is an outcome of the Climate Summit held in Paris in 2015
  2. Membership of GACSA doesn't create any binding obligations
  3. India was instrumental in the creation of GACSA

Select the correct answer using the code given below:

- |                 |              |
|-----------------|--------------|
| A) 1 and 3 only | B) 2 only    |
| C) 2 and 3 only | D) 1,2 and 3 |



## ‘Global Alliance for Climate-Smart Agriculture (GACSA)’,

- GACSA - Global Alliance for Climate-Smart Agriculture. GACSA is an inclusive, voluntary and action-oriented multi-stakeholder platform on Climate-Smart Agriculture (CSA). Our vision is to improve food security, nutrition and resilience in the face of climate change.
- GACSA is an inclusive, voluntary and action-oriented multi-stakeholder platform on Climate-Smart Agriculture (CSA) Objectives. GACSA's vision is to improve food security, nutrition and resilience in the face of climate change
- India was instrumental in the creation of GACSA.
- Climate-Smart Agriculture (CSA) is an approach to dealing with these interlinked challenges in a holistic and effective manner. ... Sustainably increasing food security by increasing agricultural productivity and incomes; Building resilience and adapting to climate change.

- Which of the following is/are the aim/aims of 'Digital India' Plan of the Government of India?

1. Formation of India's own Internet companies like China did.
2. Establish a policy framework to encourage overseas multinational corporations that collect Big Data to build their large data centres with our national geographical boundaries
3. Connect many of our villages to the Internet and bring Wi-Fi to many of our schools, public places and major tourist centres

Select the correct answer using the code given below:

- |                 |              |
|-----------------|--------------|
| A) 1 and 2 only | B) 3 only    |
| C) 2 and 3 only | D) 1,2 and 3 |

## Digital India Plan

- **Digital India** is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy.
- The vision of **Digital India** programme is inclusive growth in areas of electronic services, products, manufacturing and job opportunities.
- Digital India aims to provide the much needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming **Government** through Technology, e-Kranti - Electronic Delivery of Services, Information for All and IT for Jobs.

- Consider the following pairs:

Towns sometimes  
mentioned in news

1. Aleppo
2. Kirkuk
3. Mosul
4. Mazar-i-sharif

Country

- Syria
- Yemen
- Palestine
- Afghanistan

Which of the pairs given above are correctly matched?

- A) 1 and 2
- B) 1 and 4
- C) 2 and 3
- D) 3 and 4

## Aleppo

- **Aleppo** is a city in Syria, which serves as the capital of the **Aleppo** Governorate, the most populous Syrian governorate. With an official population of 4.6 million.
- The battle began on 19 July 2012 and was part of the ongoing Syrian Civil War. A stalemate that had been in place for four years finally ended in July 2016, when Syrian government troops closed the rebels' last supply line into **Aleppo** with the support of Russian airstrikes.
- **Aleppo** was the largest city in the Syrian region, and the Ottoman Empire's third-largest after Constantinople and Cairo. The city's significance in history has been its location at one end of the Silk Road, which passed through Central Asia and Mesopotamia.

## Kirkuk

- **Kirkuk** is a city in Iraq, serving as the capital of the **Kirkuk Governorate**, located 238 kilometres (148 miles) north of Baghdad.
- **Kirkuk** is known for its rich oil reserves, producing almost half of Iraq's daily exports, and has been one of the most highly disputed areas between the Kurdish people and the Iraqi government in Baghdad.
- The city had been under Kurdish Peshmerga control since 2014. **Kirkuk** has been a disputed territory for around eighty years – Kurds have wanted **Kirkuk** to become part of Kurdistan Region, which is opposed by the regions Arab and Turkmen populations.

## Mosul

- **Mosul** is a major city in northern Iraq. Located approximately 400 km (250 mi) north of Baghdad, **Mosul** stands on the west bank of the Tigris
- The Fall of **Mosul** occurred between 4-10 June 2014, when Islamic State of Iraq and the Levant (ISIL) insurgents, initially led by Abu Abdulrahman al-Bilawi, defeated the Iraqi Army, led by Lieutenant General Mahdi Al-Gharrawi.
- Iraqi Prime Minister Haider al-Abadi officially announced the liberation of the city on 10 July 2017, though heavy fighting and resistance persisted until 21 July. The Islamic State took control of the city in June 2014.

## Mazar-i-sharif

- **Mazār-i-Sharīf** also called Mazār-e Sharīf, or just Mazar, is the fourth-largest city of Afghanistan, with a 2015 UN-Habitat population estimate 427,600.
- On August 8, **1998**, **Taliban** militia forces captured the city of **Mazar-i Sharif** in northwest Afghanistan, the only major city controlled by the United Front, the coalition of forces opposed to the Taliban.
- In Afghanistan many believe that Hazrat Ali was **buried in Mazar e Sharif** in the blue tiled shrine where the pigeons are always white.



- In the Federation established by The Government of India Act of 1935, residuary powers were given to the
  - A) Federal Legislature
  - B) Governor General
  - C) Provincial Legislature
  - D) Provincial Governors

## The Government India Act 1935

- The act divided the powers between centre and units in terms of three lists- Federal list, Provincial list and the con-current list.
- **Residuary powers** were given to the Viceroy. The degree of autonomy introduced at the provincial level was subject to important limitations: the provincial Governors retained important reserve powers, and the British authorities also retained a right to suspend responsible government.
- The Government of Indian Act was passed by the **British parliament** in 1935 and came into effect in 1937. It was based on a report by a Joint Select Committee, led by Lord Linlithgow, set up the two houses of the **British parliament**.

## The Government India Act 1935

- The concept of an All India Federation failed completely because the Indian National Congress never came for the accomplishment of the plan which was made because of the representation power of the princely states was still in the hands of the British so the concept could not be implemented.
- The Act ended Diarchy and provided the establishment of All India Federation. This act served some useful purposes by the experiment of provincial autonomy, thus we can say that the **Government of India Act 1935** marks a point of no return in the history of constitutional development in India.
- Warren Hastings abolished Dyarchy. It failed and so did the 'three round-table conferences'. In the early thirties, clouds of the 'Second World War' were gathering and, with a view to woo the Indian masses, the government brought in the Act of 1935.

- Consider the following statements:
  1. The Speaker of the Legislative Assembly shall vacate his/her office if he/she ceases to be a member of the Assembly
  2. Whenever the Legislative Assembly is dissolved, the Speaker shall vacate his/her office immediately

Which of the statements given above is/are correct?

A) 1 only

B) 2 only

C) Both 1 and 2

D) Neither 1 nor 2

## Speaker Of Assembly

- Vacation and resignation of, and removal from, the offices of Speaker and Deputy
  - shall vacate his office if he ceases to be a member of the Assembly;
  - or removal of the Speaker and Deputy Speaker of a State Legislative Assembly.
- Whenever the Assembly is dissolved, the Speaker shall not vacate his office until immediately before the first meeting of the Assembly after the dissolution.

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- Which one of the following reflects the most appropriate relationship between law and liberty?
  - A) If there are more laws, there is less liberty
  - B) If there are no laws, there is no liberty
  - C) If there is liberty, laws have to be made by the people
  - D) If Laws are changed too often, liberty is in danger

## Law and Liberty

- The **relationship** between **law** and **liberty** is dependent on the political system in which they operate.
- Where there are no **laws** to protect or provide freedom and **liberty**, violations of the same take place.
- Along with the **right** to life, the **right to liberty** is one of the most fundamental human rights. The **right to liberty** is the **right** of all persons to freedom of their person - freedom of movement and freedom from arbitrary detention by others. No-one shall be subjected to arbitrary arrest or detention.
- The judiciary is the watchdog of these constitutions and applies the **law** to protect and **liberty** of the people.

- Consider the following statements:

1. No criminal proceedings shall be instituted against the Governor of a State in any court during his term of office
2. The emoluments and allowances of the Governor of a State shall not be diminished during his term of office.

Which of the statements given above is/are correct?

- A) 1 only                      B) 2 only  
C) Both 1 and 2              D) Neither 1 nor 2



## Emoluments of Governor

- The Governor shall be entitled without payment of rent to the use of his official residences and shall be also entitled to such emoluments, allowances and privileges as may be determined by Parliament by law and, until provision in that behalf is so made, such emoluments, allowances and privileges as are specified in the Second Schedule.
- The emoluments and allowances of the Governor shall not be diminished during his term of office.
- No **criminal proceedings** shall be conducted against the President or the **Governor** during his term of office.
- The President and **Governor** are the sole guardians of the country and states respectively so the absence of their rule will affect the country or the states.

- The well-known painting 'Bani Thani' belongs to the
  - A) Bundi school
  - B) Jaipur school
  - C) Kangra school
  - D) Kishangarh school

## Bani Thani

- Bani Thani was a singer and poet in Kishangarh in the time of Raja Samant Singh (1748-1764)
- She became mistress to the king.
- After he abdicated the throne the couple retired to a comfortable life in Brindavan, a place associated with the life of Krishna, to whom Samant Singh was greatly devoted. A group of Indian miniature paintings of around 1750 attributed to Nihal Chand from the Marwar school of Kishangarh show Krishna and Radha, using the same models, who are assumed to be Sawant Singh and Bani Thani.
- Bani Thani is depicted with elegant and graceful features, rather stylized, arched eyebrows, lotus-like elongated eyes and pointed chin. One painting of her was featured in an Indian stamp issued on 5 May 1973.

- What is 'Terminal High Altitude Area Defense (THAAD), sometimes seen in the news/
  - A) An Israeli radar system
  - B) India's indigenous anti-missile programme
  - C) An American anti-missile system
  - D) A defence collaboration between Japan and South Korea

## Terminal High Altitude Area Defense (THAAD),

- A ballistic missile follows a ballistic trajectory to deliver one or more warheads on a predetermined target.
- Ballistics is the field in physics concerned with study (and design) of flight behavior and impact effects of projectiles of bullets, unguided bombs, rockets etc.
- A ballistic missile is a missile that is guided only during the relatively brief initial phase of powered flight and trajectory is subsequently governed by gravity.
- An **anti-ballistic missile (ABM)** is a surface-to-air missile designed to counter ballistic missiles.
- Ballistic missiles are used to deliver nuclear, chemical, biological, or conventional warheads in a ballistic flight trajectory.

## Terminal High Altitude Area Defense (THAAD)

- India has an active ABM development effort using indigenously developed and integrated radars, and indigenous missiles.
- In November 2006, India successfully conducted the PADE (Prithvi Air Defence Exercise in which an anti-ballistic missile, called the Prithvi Air Defence (PAD), an *exo an exo-atmospheric* (outside the atmosphere) interceptor system, intercepted a Prithvi-II ballistic missile.
- The PAD missile has the secondary stage of the Prithvi missile and can reach altitude of 80 km (50 mi). During the test, the target missile was intercepted at a 50 km (31 mi) altitude.
- India became the fourth nation in the world after United States, Russia, and Israel to acquire such a capability and the third nation to acquire it using in-house research and development.
- Terminal High Altitude Area Defense (THAAD) is an American anti ballistic missile defense system designed to shoot down ballistic missile in their terminal phase by intercepting with a hit-to-kill approach.
- THAAD has been deployed in Guam, the UAE, Israel, Romania and South Korea.

- With reference to cultural history of India, consider the following statements:
  1. Most of the Tyagaraja Kritis are devotional songs in praise of Lord Krishna
  2. Tyagaraja created several new ragas
  3. Annamacharya and Tyagaraja are contemporaries
  4. Annamacharya Kirtanas are devotional songs in praise of Lord Venkateshwara

Which of the statements given above are correct?

- A) 1 and 3 only
- B) 2 and 4 only
- C) 1,2 and 3
- D) 2,3 and 4

## Tyagaraja 1767-1847

- Tyagaraja was a renowned composer of Carnatic music.
- His contemporaries, Shayama Shastri, and Muthuswami Dikshitar were regarded as Trinity of Carnatic music.
- Tyagaraja composed thousands of devotional compositions, most in Telugu and in praise of Lord Rama.
- Five of his compositions called the Pancharatna Kritis are still famous
- He has also composed krithis in praise of Krishna, Shiva, Shakti, Ganesha, Muruga, Saraswati, and Hanuman.



## Annamacharya 1408-1503

- He was Hindu saint composed songs called sankirtananas in praise of the Lord Venkateshwara a form of Vishnu.
- He is the first known composer of Carnatic Music.
- The most famous composers of Carnatic music like Purandara Dasa, Kanaka Dasa also came after him.
- Annamacharya is remembered for his saintly life, and is honoured as a great devotee of Vishnu by devotees and saintly singers.
- He is believed to have been the creator avatar of Nadaka, the sword of Vishnu. He is widely regarded as the Andhra Pada kavita Pitāmaha (Grandfather of Telugu song-writing).
- His wife, Timmakka had written *Subhadra Kalyanam*, and is considered the first female poet in Telugu literature.

- Which of the following are regarded as the main features of the 'Rule of Law'?
  1. Limitation of powers
  2. Equality before Law
  3. People's responsibility to the Government
  4. Liberty and Civil rights

Select the correct answer using the code given below:

- A) 1 and 3 only                      B) 2 and 4 only  
C) 1,2 and 4 only                    D) 1,2,3 and 4

## Rule of Law

- **Rule of law** is a principle under which all persons, institutions, and entities are accountable to laws that are: Publicly promulgated. Equally enforced.
- It requires measures to ensure adherence to the principles of supremacy of the law, equality before the law, accountability to the law, **fairness** in the application of the law, separation of powers, participation in decision-making, legal certainty, avoidance of **arbitrariness**, and procedural and legal transparency.
- At its most basic, the **rule of law** is a tool to protect citizens against their Government - to ensure it does not treat them unfairly, or arbitrarily deprive them of their rights. And so protecting our fundamental human rights must be another key part of the definition of the **rule of law**.

46/A2018

- Which one of the following statements correctly describes the meaning of legal tender money?
  - A) The money which is tendered in courts of law to defray the fee of legal cases
  - B) The money which a creditor is under compulsion to accept in settlement of his claims
  - C) The bank money in the form of Cheques, drafts, bills of exchange, etc.
  - D) The metallic money in circulation in a country

## Legal Tender Money

- Legal tender is officially defined as the coins or banknotes that must be accepted if offered in payment of a debt.
- The 'Legal tender' is the money that is recognised by the law of the land, as valid for payment of debt.
- The RBI Act of 1934, which gives the Central Bank the sole right to issue bank notes, states that "Every bank note shall be legal tender at any place in India in payment for the amount expressed therein"
- all coins of denomination 50 paise and above are legal tender irrespective of design and should be accepted. "As coins remain in circulation for a longer period, coins of different designs and shapes circulate at the same time.
- In India, paper notes are unlimited legal tender.

47/A2018

- If a commodity is provided free to the public by the Government, then
  - A) the opportunity cost is zero
  - B) the opportunity cost is ignored
  - C) the opportunity cost is transferred from the consumers of the product to the tax-paying public
  - D) the opportunity cost is transferred from the consumers of the product to the Government

## Opportunity cost of free supplies to Public

- Opportunity cost is the loss of other alternatives when one alternative is chosen.
- Opportunity cost is the value of the next best thing you give up whenever you make a decision. It is "the loss of potential gain from other alternatives when one alternative is chosen". The idea of an opportunity cost was first begun by John Stuart Mill.
- Opportunity cost is the forgone benefit that would have been derived by an option not chosen. To properly evaluate opportunity costs, the costs and benefits of every option available must be considered and weighed against the others.
- The notion of opportunity cost plays a crucial part in attempts to ensure that scarce resources are used efficiently.

48/A2018

- Increase in absolute and per capita real GNP do not connote a higher level of economic development, if
  - A) industrial output fails to keep pace with agricultural output
  - B) agricultural output fails to keep pace with industrial output
  - C) poverty and unemployment increases
  - D) imports grow faster than exports



## GDP

- While GNP measures production, it is also commonly used to measure the welfare of a country. ... Unfortunately, GNP is not a perfect measure of social welfare and even has its limitation in measuring economic output.
- Annual GDP figures are often considered the best indicators for the size of the economy. Economists use two different types of GDP when measuring a country's economy. Real GDP is adjusted for inflation, while nominal GDP is not adjusted for inflation. An increase in GDP indicates that businesses are making more money.
- The increase in per capita income is a good measure of economic development. In the advanced countries, per capita income has been on continuous increases because the growth rate of national income is greater than the growth rate of population.

49/A2018

- Consider the following statements:  
Human capital formation as a concept is better explained in terms of a process which enables
  1. individuals of a country to accumulate more capital
  2. increasing the knowledge, skill levels and capacities of the people of the country
  3. accumulation of tangible wealth
  4. accumulation of intangible wealth

Which of the statements given above is/are correct?

- A) 1 and 2
- B) 2 only
- C) 2 and 4
- D) 1,3 and 4

## Human Capital Formation

- **Human capital** is an intangible asset or quality not listed on a company's balance sheet. It can be classified as the economic value of a worker's experience and skills. This includes assets like education, training, intelligence, skills, health, and other things employers value such as loyalty and punctuality.
- In a public organization, **human capital** is available as a resource to provide for the public welfare. How **human capital** is developed and managed may be one of the most important determinants of economic and organizational performance.
- **Human capital** is the stock of habits, knowledge, social and personality attributes (including creativity) embodied in the ability to perform labour so as to produce economic value.

- Despite being a high saving economy, capital formation may not result in significant increase in output due to
  - A) weak administrative machinery
  - B) illiteracy
  - C) high population density
  - D) high capital-output ratio

## Capital Output Ratio

- Capital output ratio is the amount of capital needed to produce one unit of output.
- For example, suppose that investment in an economy, investment is 32% (of GDP), and the economic growth corresponding to this level of investment is 8%. Here, a Rs 32 investment produces an output of Rs 8.
- The capital output ratio is of two types: the average capital output ratio and the marginal or the incremental capital output ratio.
- The incremental capital output ratio (ICOR) is a frequently used tool that explains the relationship between the level of investment made in the economy and the consequent increase in GDP. Overall, a higher ICOR value is not preferred because it indicates that the entity's production is inefficient.

51/A2018

- After the Santhal Uprising subsided, what was /were the measure/measures taken by the colonial government?

1. The territories called 'Santhal Paraganas were created

2. It became illegal for a Santhal to transfer land to a non-Santhal

Select the correct answer using the code given below:

A) 1 only

B) 2 only

C) Both 1 and 2

D) Neither 1 nor 2

## The Santhal Uprising

- The Santhal rebellion (sometimes referred to as the Sonthal rebellion), commonly known as Santhal Hool, was a rebellion in present-day Jharkhand, in eastern India against both the British colonial authority and zamindari system by the Santhal people.
- On 30 June 1855, two Santal rebel leaders, Sidhu and Kanhu Murmu, mobilized ten thousand Santhals and declared a rebellion against British colonists. Sidhu Murmu had accumulated about ten thousand Santhals to run parallel government against the British rule.
- Santhal rebellion failed to outclass the superior military power of British rule.

## Impact of Santhal rebellion

- Martial law was declared on 10<sup>th</sup> November 1855 and it lasted till 3<sup>rd</sup> January 1856.
- British government passed Santhal Pargana Tenancy Act 1876 which protected the ownership of land of tribals.
- As a direct consequence of the Santhal Hul or Rebellion of 1854-55 led by Sido and Kanu brothers Santhal Pargana was created as a separate district in 1855



52/A2018

- Economically, one of the results of the British rule in India in the 19<sup>th</sup> century was the
  - A) increase in the export of Indian handicrafts
  - B) growth in the number of Indian owned factories
  - C) commercialization of Indian agriculture
  - D) rapid increase in the urban population

## Economy during British Raj

- The British had come to India as traders. They were looking for profitable trading opportunities. Hence, they introduced the cultivation of cash crops like opium, tea and indigo as they could make large profits by trading these crops. Opium was exported to China in return for tea.
- Commercialisation of agriculture is a phenomenon where agriculture is governed by commercial consideration i.e. certain specialised crops began to be grown not for consumption in village but for sale in national and even in international market. Commercialization of agriculture in India began during the British rule.
- Commercialisation did not give boost to agricultural production and did not impart organised form to agricultural system in any way. While the upper class and British industries benefited-from it, the Indian peasants' life was tied to remote international market.

- If the President of India exercises his power as provided under Article 356 of the Constitution in respect of a particular State, then
  - A) the Assembly of the State is automatically dissolved
  - B) the powers of the Legislature of that State shall be exercisable by or under the authority of the Parliament
  - C) Article 19 is suspended in that State
  - D) the President can make laws relating to that State

## Article 356

- Article 356 of the Constitution confers a power upon the President to be exercised only where he is satisfied that a situation has arisen where the government of a State cannot be carried on in accordance with the provisions of the Constitution.
- The president's rule is the suspension of state government and imposition of direct central government rule in a state.
- Subsequently, executive authority is exercised through the centrally appointed governor.

54/A2018

- Consider the following pairs:

**CRAFT**

1. Puthukkuli shawls
2. Sujni embroidery
3. Uppada Jamdani Saris

**HERITAGE OF**

- Tamil Nadu
- Maharashtra
- Karnataka

Which of the pairs given above is/are correct?

- A) 1 only                      B) 1 and 2
- C) 3 only                      D) 2 and 3

## Puthukkuli shawls

- Puthukkuli shawls are made by Todas of Nilgiri hills in Tamil Nadu. Locally called Pugur, meaning flower, the fine and intricate Toda embroidery is done by tribal
- Puthukkuli shawls have been given GI tag.
- The Toda Embroidery, also locally known as "pukhoor", is an art work among the Toda pastoral people of Nilgiris, in Tamil Nadu made exclusively by their women.
- The embroidery, which has a fine finish, appears like a woven cloth but is made with use of red and black threads with a white cotton cloth background. Both sides of the embroidered fabric are usable and the Toda people are proud of this heritage. Both men and women adorn themselves with the embroidered cloaks and shawls

## Sujni embroidery

- Sujani (also known as Sujini) is a form of embroidery originating from the Bhusura village of Bihar in India
- In ancient times, it was considered as a form of quilting wherein old sarees and dhotis were used as the creative canvas, the cloth was folded twice or thrice and then simple stitches were done on these used clothing to add newness to them. Today, Sujani embroidery is also practiced in the southern part of Rajasthan for making patterns on Sarees, dupattas and other clothing and home furnishing.
- Sujani is said to have originated around the 1920s and was only practiced by the Rajput women. The word “Sujani” is derived from the words ‘su’ which means facilitating and ‘jani’ meaning birth. Quilts for new-born babies were made by stitching together colorful patches of old clothes and then Sujani embroidery was done with colorful threads to create motifs and designs.

## Uppada Jamdani Saris

- Uppada Jamdani Sari is a silk sari style woven in Uppada of East Godavari district in the Indian state of Andhra Pradesh.
- Given GI status
- Uppada Jamdani saris are known for their light weight.
- The name Jamdani in the Uppada Jamdani Sari is a Persian terminology, in which *Jam* means *flower* and *Dani* means *Vase*.
- Uppada Jamdani saree weaving takes nearly 10 - 60 days time for which at least 2-3 weavers has to spend 10 hours of their day.
- There are around 3000 looms producing Jamdani sarees in and around Uppada and kothapalli area.



- In which of the following areas can GPS technology be used?
  1. Mobile phone operations
  2. Banking operations
  3. Controlling the power grids

Select the correct answer using the code given below:

- |                 |                 |
|-----------------|-----------------|
| A) 1 only       | B) 2 and 3 only |
| C) 1 and 3 only | D) 1,2 and 3    |

## GPS Technology

- GPS, or the Global Positioning System, is a global navigation satellite system that provides location, velocity and time synchronization. GPS is everywhere.
- GPS technology is now in everything from cell phones and wristwatches. New uses of GPS are invented every day
- GPS Applications. Aviation, Marine, Farming, Science, Surveying, Military, and many other areas.

56/A2018

- Consider the following statements:
  1. The Reserve Bank of India manages and services Government of India Securities but not any State Government Securities
  2. Treasury bills are issued by the Government of India and there are no treasury bills issued by the State Governments
  3. Treasury bills offer are issued at a discount from the par value.

Which of the statements given above is/are correct?

A) 1 and 2 only  
C) 2 and 3 only

B) 3 only  
D) 1,2 and 3

## RBI Treasury bills

- Treasury bills are money market instruments issued by the Government of India as a promissory note with guaranteed repayment at a later date. Funds collected through such tools are typically used to meet short term requirements of the government, hence, to reduce the overall fiscal deficit of a country.
- Treasury Bills are issued only by the central government in India. The State governments do not issue any treasury bills.
- At present, the Government of India issues three types of treasury bills, namely, 91-day, 182-day and 364-day. (91, 182 and 364 days are the different maturity periods.)

- Consider the following statements:
  1. The Earth's magnetic field has reversed every few hundred thousand years
  2. When the Earth was created more than 4000million years ago, there was 54% oxygen and no carbon dioxide
  3. When living organisms originated, they modified the early atmosphere of the Earth

Which of the statements given above is/are correct?

- A) 1 only                      B) 2 and 3 only  
C) 1 and 3 only              D) 1,2 and 3

## Earth Magnetic Field

- As a matter of geological record, the Earth's magnetic field has undergone numerous reversals of polarity.
- It can be seen in the magnetic patterns found in volcanic rocks, especially those recovered from the ocean floors.
- In the last 10 million years, there have been, on average, 4 or 5 reversals per million years.
- During reversal, the magnetic field is considerably weakened and allows many more cosmic rays to reach the surface of the planet. These energetic particles from space can be damaging to life on Earth if too many reach the surface.

58/A2018

- The terms 'WannaCry, Petya and Eternal Blue' sometimes mentioned in the news recently are related to
  - A) Exoplanets
  - B) Cryptocurrency
  - C) Cyber attacks
  - D) Mini Satellites

## Cyber Attack

- A **cyber attack** is an assault launched by cybercriminals using one or more computers against a single or multiple computers or networks. A **cyber attack** can maliciously disable computers, steal data, or use a breached computer as a launch point for other **attacks**.
- **Malware** is a term used to describe malicious software, including spyware, ransomware, viruses, and worms
- **Phishing** is a cybercrime in which a target or targets are contacted by email, telephone or text message by someone posing as a legitimate institution to lure individuals into providing sensitive data such as personally identifiable information, banking and credit card details, and passwords.



- With reference to the circumstances in Indian agriculture, the concept of “Conservation Agriculture” assumes significance. Which of the following fall under the Conservation Agriculture?

1. Avoiding the monoculture practices
2. Adopting minimum tillage
3. Avoiding the cultivation of plantation crops
4. Using crop residues to cover soil surface
5. Adopting spatial and temporal crop sequencing/crop rotations

Select the correct answer using the code given below:

- |              |                |
|--------------|----------------|
| A) 1,3 and 4 | B) 2,3,4 and 5 |
| C) 2,4 and 5 | D) 1,2,3 and 5 |

## “Conservation Agriculture”

- **Conservation Agriculture (CA)** is a farming system that can prevent losses of arable land while regenerating degraded lands. It promotes maintenance of a permanent soil cover, minimum soil disturbance, and diversification of plant species.
- **The 3 principles**
  - minimum tillage and soil disturbance.
  - permanent soil cover with crop residues and live mulches.
  - crop rotation and intercropping.
- **To conserve agriculture:** Avoid mechanical soil disturbance to the extent possible. Avoid soil compaction beyond the elasticity of the soil. Maintain or improve soil organic matter during rotations until reaching an equilibrium level. Maintain organic cover through crop residues and cover crops to minimize erosion loss by wind and/or water.

- The term 'sixth mass extinction' is often mentioned in the news in the context of the discussion of
  - A) Widespread monoculture practices in agriculture and large scale commercial farming with indiscriminate use of chemicals in many parts of the world that may result in the loss of good native ecosystems.
  - B) Fears of a possible collision of a meteorite with the Earth in the near future in the manner it happened 65 million years ago that caused the mass extinction of many species including those of dinosaurs
  - C) Large scale cultivation of genetically modified crops in many parts of the world and promoting their cultivation in other parts of the world which may cause the disappearance of good native crop plants and the loss of food biodiversity
  - D) Mankind's over-exploitation/ misuse of natural resources, fragmentation/loss of natural habitats, destruction of ecosystems, pollution and global climate change

## 'sixth mass extinction'

- At least a handful of times in the last 500 million years, 75 to more than 90 percent of all species on Earth have disappeared in a geological blink of an eye in catastrophes we call mass extinctions.
- Though mass extinctions are deadly events, they open up the planet for new forms of life to emerge. The most studied mass extinction, which marked the boundary between the Cretaceous and Paleogene periods about 66 million years ago, killed off the non avian dinosaurs and made room for mammals and birds to rapidly diversify and evolve.
- The **sixth mass extinction** -- the one happening now -- is different: Scientists say it's **caused** by humans. "It is entirely our fault," Ceballos González said.

## GMO crops

- Many GMO crops are used to make ingredients that Americans eat such as corn-starch, corn syrup, corn oil, soybean oil, canola oil, or granulated sugar.
- A few fresh fruits and vegetables are available in GMO varieties, including potatoes, summer squash, apples, and papayas.
- **Genetically modified crops (GM crops)** are plants used in agriculture, the DNA of which has been modified using genetic engineering methods. Plant genomes can be engineered by physical methods or by use of *Agrobacterium* for the delivery of sequences hosted in T-DNA binary vectors.

61/A2018

- With reference to the Indian Regional Navigation Satellite System (IRNSS), consider the following statements:
  1. IRNSS has three satellites in geostationary and four satellites in geosynchronous orbits
  2. IRNSS covers entire India and about 5500 sq.km beyond its borders
  3. India will have its own satellite navigation system with full global coverage by the middle of 2019

Which of the statements given above is/are correct?

- A) 1 only                                      B) 1 and 2 only  
C) 2 and 3 only                                D) None

## Indian Regional Navigation Satellite System (IRNSS),

- IRNSS is an independent regional navigation satellite system being developed by India. It is designed to provide accurate position information service to users in India as well as the region extending up to 1500 km from its boundary, which is its primary service area.
- operational name of NavIC (acronym for Navigation with Indian Constellation; also, nāvīk 'sailor' or 'navigator' in Sanskrit).
- Accuracy: 1m Total Satellite: 8 Orbital Height: 36,000km
- NavIC will provide two levels of service, the "standard positioning service", which will be open for civilian use, and a "restricted service" (an encrypted one) for authorised users (including the military).

62/A2018

- Consider the following phenomena:
  1. Light is affected by gravity
  2. The Universe is constantly expanding
  3. Matter wraps its surrounding space time

Which of the above is/are the prediction/predictions of Albert Einstein's General Theory of Relativity, often discussed in Media?

- A) 1 and 2 only
- B) 3 only
- C) 1 and 3 only
- D) 1, 2 and 3



## Theory of Relativity

- In 1905, Albert Einstein determined that the laws of physics are the same for all non-accelerating observers, and that the speed of light in a vacuum was independent of the motion of all observers. This was the **theory of special relativity**.
- The basic idea is that instead of being an invisible force that attracts objects to one another, gravity is a curving or warping of space. The more massive an object, the more it warps the space around it.
- The **theory** explains the behaviour of objects in space and time, and it can be used to predict everything from the existence of black holes, to light bending due to gravity, to the behaviour of the planet Mercury in its orbit. The implications of Einstein's most famous **theory** are profound.

63/A2018

- With reference to the Genetically Modified mustard (GM mustard) developed in India, consider the following statements:
  1. GM mustard has the genes of a soil bacterium that give the plant the property of pest-resistance to a wide variety of pests
  2. GM mustard has the genes that allow the plant cross-pollination and hybridization
  3. GM mustard has been developed jointly by the IARI and Punjab Agricultural University

Which of the statements given above is/are correct?

- |                 |              |
|-----------------|--------------|
| A) 1 and 3 only | B) 2 only    |
| C) 2 and 3 only | D) 1,2 and 3 |

## GM Mustard

- Dhara Mustard Hybrid-11, otherwise known as DMH - 11, is a genetically modified hybrid
- Mustard is among the three highest produced oil seed crops in India
- It was developed by Professor Deepak Pental from the University of Delhi, with the aim of reducing India's demand for edible oil imports.
- DHM -11 was created through transgenic technology, primarily involving the Bar, Barnase and Barstar gene system
- This hybrid mustard variety has come under intense public scrutiny, mainly due to concerns regarding DMH - 11's potential to adversely affect the environment as well as consumer health. DMH - 11 was found not to pose any food allergy risks, and has demonstrated increased yields over existing mustard varieties.

## GM Mustard

- The transgenic mustard DMH - 11 was developed in 2002 using genetic material isolated from non-pathogenic soil bacteria, and techniques in transgenic systems for pollination control, which primarily involved the Barnase-Barstar system. Three genes, Bar, Barnase and Barstar, were extracted from *Bacillus amyloquefaciens* to produce the hybrid seed.
- The insertion of the Barnase gene induces genetic male sterility by preventing the production of the male gametophyte (pollen grains) in the mustard plant. Meanwhile, the Barstar gene acts to restore the ability of the plant to produce fertile hybrid seeds. Mustard is a self-pollinating plant, thus, making it difficult to perform cross-pollination with another desired male parental line, without the occurrence of self pollination.

- Consider the following pairs:

TERMS SOMETIMES  
seen in News

1. Belle II experiment
2. Blockchain Technology
3. CRISPR-Cas9

CONTEXT/TOPICS

- Artificial Intelligence
- Digital/Cryptocurrency
- Particle Physics

Which of the pairs given above is/are correctly matched?

- A) 1 and 3 only                      B) 2 only
- C) 2 and 3 only                      D) 1,2 and 3

## Belle II experiment

- The **Belle II experiment** is a particle physics experiment designed to study the properties of B mesons (heavy particles containing a bottom quark). Belle II is the successor to the Belle experiment, and is currently being commissioned at the Super KEKB accelerator complex at KEK in Tsukuba, Ibaraki Prefecture, Japan.
- The purpose of the upgraded Belle II experiment is to search for new physics phenomena that cannot be explained by the particles and forces already included in the Standard Model
- The experiment will throw light on the question that why Universe is made up of matter-antimatter.

## Blockchain Technology

- Blockchain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system. A blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the blockchain.
- Blockchain technology is a structure that stores transactional records, also known as the block, of the public in several databases, known as the “chain,” in a network connected through peer-to-peer nodes. Typically, this storage is referred to as a 'digital ledger.
- Blockchain has the potential to grow to be a bedrock of the worldwide record-keeping systems, but was launched just 10 years ago. It was created by the unknown persons behind the online cash currency bitcoin, under the pseudonym of Satoshi Nakamoto.

## CRISPR-Cas9

- **CRISPR-Cas9** is a unique technology that enables geneticists and medical researchers to edit parts of the genome<sup>?</sup> by removing, adding or altering sections of the DNA<sup>?</sup> sequence. It is currently the simplest, most versatile and precise method of genetic manipulation and is therefore causing a buzz in the science world.
- In the **DNA delivery** format, the **CRISPR** DNA vector enters the cell and translocates to the nucleus, where the **Cas9** mRNA and gRNA are transcribed.
- In the **RNA delivery** format, the **Cas9** mRNA and gRNA are cotransfected into the cell cytoplasm, where the mRNA is translated to produce functional **Cas9** protein.



65/A2018

- Which of the following statements best describes 'carbon fertilization'?
- A) Increased plant growth due to increased concentration of carbon dioxide in the atmosphere
  - B) Increased temperature of Earth due to increased concentration of carbon dioxide in the atmosphere
  - C) Increased acidity of oceans as a result of increased concentration of carbon dioxide in the atmosphere
  - D) Adaptation of all living beings on Earth to the climate change brought about by the increased concentration of carbon dioxide in the atmosphere

## Carbon Fertilizer

- Carbon fertilization is also known as Carbon Dioxide Fertilisation. It is the phenomena that the increase of carbon dioxide in the atmosphere increases the rate of photosynthesis in plants.
- Carbon fertilization effect is the increased rate of photosynthesis in plants that results from increased levels of carbon dioxide in the atmosphere.
- The effect varies depending on the plant species, the temperature, and the availability of water and nutrients
- CO<sub>2</sub> fertilization response is unlikely to significantly reduce the human-made increases in atmospheric CO<sub>2</sub> concentration over the next century.

- When the alarm of your smartphone rings in the morning, you wake up and tap it to stop the alarm which causes your geyser to be switched on automatically. The smart mirror in your bathroom shows the day's weather and also indicates the level of water in your overhead tank. After you take some groceries from your refrigerator for making breakfast, it recognizes the shortage of stock in it and places an order for the supply of fresh grocery items. When you step out of your house and lock the door, all lights, fans, geyser and AC machines get switched off automatically. On your way to office, your car warns you about traffic congestion ahead and suggest an alternative route, and if you are late for a meeting, it sends a message to your office accordingly.

## 66/A2018 Continued

- In the context of emerging communication technologies, which one of the following terms best applies to above scenario?
  - A) Border Gateway Protocol
  - B) Internet of Things
  - C) Internet Protocol
  - D) Virtual Private Network

## Internet of Things

- The Internet of Things (IoT) refers to a system of interrelated, internet-connected objects that are able to collect and transfer data over a wireless network without human intervention. The personal or business possibilities are endless.
- Examples of objects that can fall into the scope of Internet of Things include connected security systems, thermostats, cars, electronic appliances, lights in household and commercial environments, alarm clocks, speaker systems, vending machines and more.
- An IoT system consists of sensors/devices which “talk” to the cloud through some kind of connectivity. Once the data gets to the cloud, software processes it and then might decide to perform an action, such as sending an alert or automatically adjusting the sensors/devices without the need for the user.

67/A2018

- With reference to solar power production in India, consider the following statements:

1. India is the third largest in the world in the manufacture of silicon wafers used in photovoltaic units.
2. The solar power tariffs are determined by the Solar Energy Corporation of India.

Which of the statements given above is/are correct?

- A) 1 only                      B) 2 only  
C) Both 1 and 2              D) Neither 1 nor 2

## Solar Power

- Electricity tariff is determined based on the provisions contained in (a) Electricity Act 2003 and (b) Tariff Policy notified by the Government of India. In case of central generating stations and where two or more states are involved, the Central Electricity Regulatory Commission determines the tariff.
- A unit (as mentioned on the electricity bills) is represented in KWH or Kilowatt Hour. This is the actual electricity or energy used. If you use 1000 Watts or 1 Kilowatt of power for 1 hour then you consume 1 unit or 1 Kilowatt-Hour (KWh) of electricity.

68/A2018

- The staple commodities of export by the English East India Company from Bengal in the middle of the 18<sup>th</sup> century were
  - A) Raw cotton, oil-seeds and Opium
  - B) Sugar, salt, zinc and lead
  - C) Copper, silver, gold, spices and tea
  - D) Cotton, silk, saltpeter and Opium



## Export by the English East India Company

- Cotton, silk, saltpetre and opium were the staple 'commodities of export' by the 'English East India Company' from 'Bengal' in the middle of the eighteenth century.
- The East India Company was initially created in 1600 to serve as a trading body for English merchants, specifically to participate in the East Indian spice trade. It later added such items as cotton, silk, indigo, saltpetre, tea, and opium to its wares and also participated in the slave trade.
- Saltpetre is a common name for potassium nitrate. It is used as a preservative in cured meat and an ingredient in toothpaste for sensitive teeth. Many decades ago, doctors prescribed potassium nitrate for asthma and arthritis.

- Which one of the following is a very significant aspect of the Champaran Satyagraha?
  - A) Active all-India participation of lawyers, students and women in the National Movement
  - B) Active involvement of Dalit and Tribal communities of India in the National Movement
  - C) Joining of peasant unrest to India's National Movement
  - D) Drastic decrease in the cultivation of plantation crops and commercial crops

## Champaran Satyagraha

- The Champaran Satyagraha of 1917 was the first Satyagraha movement led by Gandhi ji.
- It is considered a historically important revolt in the Indian independence movement.
- It was a farmer's uprising
- Under Colonial-era laws, many tenant farmers were forced to grow some indigo on a portion of their land as a condition of their tenancy.
- When Gandhi returned to India from South Africa in 1915, and saw peasants in northern India oppressed by indigo planters, he tried to use the same methods that he had used in South Africa to organize mass uprisings by people to protest against injustice.

70/A2018

- Who among the following were the founders of the 'Hind Mazdoor Sabha' established in 1948?
  - A) B Krishna Pillai, EMS Namboodripad and K C George
  - B) Jayaprakash Narayan, Deen Dayal Upadhyay and M N Roy.
  - C) C P Ramaswamy Iyer, K Kamraj and Veeresalingam Pantulu
  - D) Ashok Mehta, T S Ramanujam and G G Mehta

## Hind Mazdoor Sabha

- The HMS was founded in Howrah in west Bengal on 29 December 1948, by socialists, Forward Bloc followers and independent unionists. Its founders included Basawon Singh (Sinha), Ashok Mehta, R.S. Ruikar, Maniben Kara, Shibnath Banerjee, R.A.
- Hind Mazdoor Sabha had laid emphasis from the start on a free and egalitarian society linking the working class and the peasantry in a united front of the toiling masses
- 1. A living wage to all working people.
  2. Guaranteed right to work for every citizen
  3. Provision of adequate housing and leisure, compulsory primary education, vocational training, child welfare and maternity protection
  4. Effective recognition of the right of collective bargaining, right to strike, freedom of association, freedom of speech, right to personal liberty and freedom of movement.

- With reference to the religious practices in India, the 'Sthanakvasi' sect belongs to
  - A) Buddhism
  - B) Jainism
  - C) Vaishnavism
  - D) Shaivism

## 'Sthanakvasi' Sect

- **Jains** are divided into two major sects; the **Digambara** (meaning sky clad) sect and the **Svetambara** (meaning white clad) sect.
- Each of these sects is also divided into subgroups. The two sects agree on the basics of Jainism, but disagree on: details of the life of Mahavira.
- **Digambar Jains** do not accept the liberation of a woman, in order to attain liberation, the woman needs to be reborn as a man.
- On the other hand, according to **Shwetambar** sect, Tirthankar Mallinath was a female. **Digambar** monks are allowed to keep only 3 possessions, which are pinchi, kamandalu, and shastra.

72/A2018

- With reference to the cultural history of India, consider the following statements:

1. White marble was used in making Buland Darwaza and Khankah at Fatehpur Sikri
2. Red sand stone and marble were used in making Bara Imambara and Rumi Darwaza at Lucknow

Which of the statements given above is/are correct?

- A) 1 only                      B) 2 only  
C) Both 1 and 2            D) Neither 1 nor 2



## Buland Darwaza and Khankah at Fatehpur Sikri

- The **Buland Darwaza** (54M High) was built in honor of his successful campaign in Gujarat, when the city came to be known as **Fatehpur Sikri** - "The City of Victory".
- The actual material of construction is red and **buff sandstone**.
- Akbar afforded a great interest to establish the city of Fatehpur Sikri. But, the city was abandoned by him in 1585 due to lack of water and rough weather. And he shifted again to his capital at Agra City.
- **Abdar Khana** was constructed by the northern side of Anup Talao to store the drinking water for the emperor **Akbar**. ...
- **Khwabgah Mahal** or the Dream Palace was the most beautiful building of Fatehpur Sikri, reserved for Akbar's personal use.

## Bara Imambara and Rumi Darwaza at Lucknow

- The city is home to 'Bara Imambara', a historical edifice with such a marvellous architecture that even modern architects seem to be perplexed by its design.
- The Imambara was built by Nawab Asaf-ud-Daula in 1784 and its designer was Kifayat-ullah who is said to be a relative of the architect of the Taj Mahal.
- Bara Imambara is a shrine built by the Shia Muslims for the purpose of Muharram rituals.
- An Imambara is a place or a building with a hall where people assemble for "Majlis"
- The roof of Imambara is made up from the rice husk which makes this Imambara a unique building.
- Rumi Darwaza is also known as Turkish Gate. Rumi Darwaza was built by Asaf-ud-Daula in 1784.
- It is an example of Awadhi architecture
- The Rumi Darwaza stands at 60 feet tall. It was modeled after the Sublime Porte in Istanbul
- It is adjacent to the Asafi Imambara and has become a logo for the city of Lucknow
- It is believed that the gate is called Rumi gate after a 13th-century Muslim Sufi mystic, Jalal ad-Din Muhammad Rumi.
- The Darwaza was constructed out of bricks and lime.

73/A2018

- Which one of the following foreign travelers elaborately discussed about diamonds and diamond mines of India?
  - A) Francois Bernier
  - B) Jean-Baptiste Tavernier
  - C) Jean de Thevenot
  - D) Abbe Barthelemy Carre

## Francois Bernier 1620-1688

- He was a French physician and traveler. He was personal physician to Mughal prince Dara Shikoh, the eldest son of Shah Jahan
- Dara Shikoh was executed in 1659. After that he was attached to court of Aurangzeb for about 12 years
- In 1684, he published "Nouvelle division de la terre par les différentes espèces ou races qui l'habitent" ("New Division of the Earth by the Different Species or 'Races' of Man that Inhabit It")
- He also wrote Travels in the Mughal Empire
- He published an essay dividing humanity into what he called 'races' distinguishing individuals, and particularly women, by skin colour and a few other physical traits.

## Jean-Baptiste Tavernier 1605-1689

- He was French gem merchant and traveler. He travelled 120,000 miles between 1630 and 1668.
- He published *Les Six Voyages de Jean-Baptiste Tavernier* (*Six Voyages*, 1676) in 1675.
- Tavernier is best known for his 1666 discovery or purchase of the 116-carat Tavernier Blue diamond that he subsequently sold to Louis XIV of France in 1668 for 120,000 livres, the equivalent of 172,000 ounces of pure gold

## Jean de Thevenot 1633-1667

- He was a French traveler, linguist, natural scientist and botanist.
- The account of his first journey was published at Paris in 1665, under the title *Relation d'un voyage fait au Levant*. It forms the first part of his collected *Voyages*.
- He made his way to Basra and sailed for India on 6 November 1665, in the ship "Hopewell," arriving at the port of on 10 January 1666.
- He was in Mughal Empire of India for thirteen months, and crossed the country by Golconda to Mauulipatam, returning overland to Surat, from which he sailed to Bander-Abbasi and went up to Shiraz.

## Abbe Barthelemy Carre

- At about the same time Colbert send a priest, the Abbe Barthelemy Carre from France via the Middle East to India, with letters and orders to support the Viceroy and the director in their mission to expand the French empire.
- The Travels of the **Abbe Carre** in India and the Near East From 1672 to 1674 (3 Vols.) Hardcover - January 1, 1992. by **carre abbe Barthelemy** (Author), **Sir Fawcett, Charles** (Author), **Charles Fawcett** (Author), **Carre Abbe** (Author) & 3 more.

- With reference to Indian history, who among the following is a future Buddha, yet to come to save the world?
  - A) Avalokiteshvara
  - B) Lokeshvara
  - C) Maitreya
  - D) Padmapani



## Future Buddha

- According to Buddhist tradition, Maitreya is a bodhisattva who will appear on Earth in the future, achieve complete enlightenment, and teach the pure dharma. According to scriptures, Maitreya will be a successor to the present Buddha, Gautama Buddha (also known as Śākyamuni Buddha).
- “Being a Living Buddha, I offer salvation to sentient beings.” Tibetan Buddhism has four main schools – Nyingma, Sakya, Kagyu and Geluk. Today reincarnation is the most widely accepted inheritance right among various schools in Tibet. There are currently 358 Living Buddhas in Tibet
- Female Buddha: Tara (Sanskrit: तारा, tārā; Tib. ཇམ་ཐལ་མོ།, Dölma), Ārya Tārā, or Shayama Tara, also known as Jetsun Dölma (Tibetan language: rje btsun sgrol ma) in Tibetan Buddhism, is an important figure in Buddhism. She appears as a female bodhisattva in Mahayana Buddhism, and as a female Buddha in Vajrayana Buddhism.

75/A2018

- Which one of the following statements does not apply to the system of Subsidiary Alliance introduced by Lord Wellesley?
  - A) To maintain a large standing army at other's expense
  - B) To keep India safe from Napoleonic danger
  - C) To secure a fixed income for the Company
  - D) To establish British paramountcy over the Indian States

## Subsidiary Alliance introduced by Lord Wellesley

- The doctrine of subsidiary alliance was introduced by Lord Wellesley. Under the subsidiary alliance system, the ruler of the allying Indian State was compelled to accept the permanent stationing of a British force within his territory and to pay a subsidy for its maintenance.
- The Subsidiary Alliance System was “Non-Intervention Policy” used by Lord Wellesley who was the Governor-General (1798-1805) to establish British Empire in India. According to this system, every ruler in India had to accept to pay a subsidy to the British for the maintenance of British army.

76/A2018

- Which of the following led to the introduction of English Education in India?

1. Charter Act of 1813
2. General Committee of Public Instruction, 1823
3. Orientalist and Anglicist Controversy

Select the correct answer using the code given below:

- |                 |              |
|-----------------|--------------|
| A) 1 and 2 only | B) 2 only    |
| C) 1 and 3 only | D) 1,2 and 3 |

## Introduction of English Education in India

- The English Education Act 1835 was a legislative Act of the Council of India, gave effect to a decision in 1835 by Lord William Bentinck, then Governor-General of the British East India Company, to reallocate funds it was required by the British Parliament to spend on education and literature in India.
- According to the clause 43 of the Charter Act of 1813 the Company had partly undertaken the responsibility of education in India and a sum of one lakh of rupees had been earmarked for the purpose.
- in 1823 an official agency (the G.C.P.I.) was created to deal with educational matters, particularly the expenditure of the sum of one lakh of rupees. “Thus a state system of education was begun almost simultaneously in all the three Presidencies by about 1823 and continued to expand till 1833. The educational grant of India was also increased from one lakh to ten lakhs of rupees per annum”.

77/A2018

- Which one of the following is an artificial lake?
  - A) Kodaikanal Tamil Nadu
  - B) Kolleru Andhra Pradesh
  - C) Nainital Uttarakhand
  - D) Renuka Himachal Pradesh

## Artificial Lakes in India

- Lake Pichola
- Kolleru lake
- Dhebar lake
- Kodaikanal lake
- Gobind Sagar Lake
- Annasagar Lake
- Kaylana Lake
- Fateh Sagar lake
- Bhadrakali Lake
- Hazaribagh Lake

78/A2018

- With reference to Pradhan mantri Kaushal Vikas Yojana, consider the following statements:

1. It is the flagship scheme of the Ministry of Labour and Employment

2. It, among other things, will also impart training in soft skills, entrepreneurship, financial and digital literacy

3. It aims to align the competencies of the unregulated workforce of the country to the National Skill Qualification Framework

Which of the statements given above is/are correct?

A) 1 and 3 only

B) 2 only

C) 2 and 3 only

D) 1,2 and 3



## Pradhan mantri Kaushal Vikas Yojana

- Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE) implemented by National Skill Development Corporation.
- The objective of this Skill Certification Scheme is to enable a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood.
- Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL).

- In 1920, which of the following changed its name to “Swarajya Sabha”?
  - A) All India Home Rule League
  - B) Hindu Mahasabha
  - C) South Indian Liberal Federation
  - D) The Servants of India Society

## “Swarajya Sabha”

- The **Indian Home Rule movement** was a movement in British India on the lines of Irish Home Rule movement and other home rule movements.
- The movement lasted around two years between 1916-1918 and is believed to have set the stage for the independence movement under the leadership of Annie Besant and Bal Gangadhar Tilak to the educated English speaking upper class Indians.
- In 1921 All India Home Rule League changed its name to Swarajya Sabha

80/A2018

- Which among the following events happened earliest?
  - A) Swami Dayanand established Arya Samaj
  - B) Dinabandhu Mitra wrote Neeldarpan
  - C) Bankim Chandra Chattopadhyay wrote Anandmath
  - D) Satyendranath Tagore became the first Indian to succeed in the Indian Civil Services Examination

## Swami Dayanand established Arya Samaj

- The samaj was founded by the sannyasi (ascetic) Dayanand Saraswati on 10 April 1875. Members of the Arya Samaj believe in one God and reject the worship of idols.

## Dinabandhu Mitra wrote Neeldarpan

- Nil Darpan (Bengali play) was written by Dinabandhu Mitra in 1858-1859 and published in Dhaka in 1860. The main context of the play is on the event of Indigo Revolt in Bengal. The play was translated to English by Michael Madhusudan Dutta and published by Reverend James Long.

## Bankim Chandra Chattopadhyay wrote Anandmath

- Anandamath is a Bengali fiction, written by Bankim Chandra Chattopadhyay and published in 1882. Set in the background of the Sannyasi Rebellion in the late 18th century, it is considered one of the most important novels in the history of Bengali and Indian literature.

## Satyendranath Tagore

- Initially, the ICS was an allwhite affair, but the elder brother of **Rabindranath Tagore**, **Satyendranath Tagore**, became the first Indian to qualify the ICS in 1863.
- Satyendranath was allotted Bombay Presidency Cadre and retired after more than 30 years of service.



81/A2018

- Which of the following is/are the possible consequences of heavy sand mining in riverbeds?
  1. Decreased salinity in the river
  2. Pollution of ground water
  3. Lowering of the water-table

Select the correct answer using the code given below:

- |                 |                 |
|-----------------|-----------------|
| A) 1 only       | B) 2 and 3 only |
| C) 1 and 3 only | D) 1,2 and 3    |

## Heavy sand mining in riverbeds

- Mining of sand, gravel, stones and boulders from riverbeds and riverbanks across the country has seen an unprecedented rise.
- Riverbed mining causes erosion and often leaves the river-plains much more vulnerable to flooding because it allows loose landmass to be washed downstream, especially during monsoons.
- Unsustainable sand mining from riverbeds can have huge social, environmental, geomorphic and disastrous impacts for rivers
- It will lead to erosion of coasts due to long shore currents because there is not enough sediment available.

82/A2018

- With reference to agricultural soils, consider the following statements:
  1. A high content of organic matter in soil drastically reduces its water holding capacity
  2. Soil does not play any role in the Sulphur cycle
  3. Irrigation over a period of time can contribute to the salinization of some agricultural lands

Which of the statements given above is/are correct?

- A) 1 and 2 only
- B) 3 only
- C) 1 and 3 only
- D) 1,2 and 3

## Sulphur Cycle

- The sulfur cycle is the collection of processes by which sulfur moves between rocks, waterways and living systems. Such biogeochemical cycles are important in geology because they affect many minerals.
- The sulfur cycle contains both atmospheric and terrestrial processes. Within the terrestrial portion, the cycle begins with the weathering of rocks, releasing the stored sulfur. The sulfur then comes into contact with air where it is converted into sulfate ( $\text{SO}_4$ ).
- Sulphur is important for the functioning of proteins and enzymes in plants, and in animals that depend upon plants for sulphur. Plants absorb sulphur when it is dissolved in water. Animals consume these plants, so that they take up enough sulphur to maintain their health.

## salinization of agricultural lands

- Salinization is the increase of salt concentration in soil and is, in most cases, caused by dissolved salts in the water supply. This supply of water can be caused by flooding of the land by seawater, seepage of seawater or brackish groundwater through the soil from below.
- Salinization is a major problem associated with irrigation, because deposits of salts build up in the soil and can reach levels that are harmful to crops. In addition, the salts can make ground water, which may be in use for drinking, saltier and unsuitable for drinking.
- Salinity affects production in crops, pastures and trees by interfering with nitrogen uptake, reducing growth and stopping plant reproduction. Some ions (particularly chloride) are toxic to plants and as the concentration of these ions increases, the plant is poisoned and dies.

83/A2018

- The Partnership for Action on Green Economy (PAGE), a UN mechanism to assist countries transition towards greener and more inclusive economies, emerged at
  - A) the Earth Summit on Sustainable Development 2002,
  - B) The United Nations Conference on Sustainable Development 2012, Rio de Janeiro
  - C) The United Nations Framework Convention on Climate Change 2015, Paris
  - D) The World Sustainable Development Summit 2016, New Delhi

## The Partnership for Action on Green Economy (PAGE),

- What is Partnership for Action on Green Economy (PAGE)?
- The Partnership supports nations and regions in reframing economic policies and practices around sustainability to foster economic growth, create income and jobs, reduce poverty and inequality, and strengthen the ecological foundations of their economies.
- PAGE provides services that enable countries to transition towards green economies.
- The Partnership for Action on Green Economy (PAGE) was launched in 2013 as a response to the call at Rio+20 to support those countries wishing to embark on greener and more inclusive growth trajectories.

84/A2018

- “3D printing” has applications in which of the the following?
  1. Preparation of confectionery items
  2. Manufacturing of bionic ears
  3. Automotive industry
  4. Reconstructive surgeries
  5. Data processing technologies

Select the correct answer using the code given below:

- A) 1,3 and 4 only                      B) 2,3 and 5 only  
C) 1 and 4 only                         D) 1,2,3,4 and 5



## 3 D Printing

- 3D printing is a form of additive manufacturing technology where a three dimensional object is created by laying down successive layers of material
- It is also known as Additive manufacturing
- Uses
  - Rapid Prototyping
  - Rapid Manufacturing
  - Mass Customization
  - Mass Production
  - Clothing
  - 3D Bio-printing
  - 3D Printing for Implant and Medical Device

- Consider the following statements:

1. The Barren Island volcano is an active volcano located in the Indian territory
2. Barren Island lies about 140 km east of Greater Nicobar
3. The last time the Barren Island volcano erupted was in 1991 and it has remained inactive since then

Which of the statements given above is/are correct?

- A) 1 only                      B) 2 and 3  
C) 3 only                      D) 1 and 3

## Barren Island volcano

- **Barren Island** is an island located in the Andaman Sea. It is the only confirmed active **volcano** in South Asia, and the only active **volcano** along a chain of volcanoes from Sumatra to Myanmar.
- The first recorded eruption of the volcano dates back to 1787. Since then, the volcano has erupted more than ten times, with the most recent one being in 2017
- This volcanic island stands in the midst of a volcanic belt on the edge of the Indian and Burmese tectonic plates.

- Why is a plant called *Prosopis juliflora* often mentioned in news?
  - A) Its extract is widely used in cosmetics
  - B) It tends to reduce the biodiversity in the area in which it grows
  - C) Its extract is used in the synthesis of pesticides
  - D) None of the above

## Prosopis juliflora

- *Prosopis juliflora* (Spanish: bayahonda blanca, Cuji [Venezuela], Aippia [Wayuunaiki]) is a shrub or small tree in the family Fabaceae, a kind of mesquite. It is native to Mexico, South America and the Caribbean. It has become established as an invasive weed in Africa, Asia, Australia and elsewhere.
- *Prosopis juliflora* (Sw.) DC. (Seemai karuvelam) was introduced in Tamil Nadu, to overcome the shortage of fire wood at Ramanathapuram district (South India) during 1877. It was also introduced in arid and semi-arid regions of Tamil Nadu.
- *Prosopis Juliflora* causes land erosion due to the loss of the grasslands that are habitats for native plants and animals. Although it is a small tree, almost like a shrub, but it causes havoc to the people as well as affects the fertility of the soil of land.

87/A2018

- Consider the following statements:
  1. Most of the world's coral reefs are in tropical waters
  2. More than one third of the world's coral reefs are located in the territories of Australia, Indonesia and Philippines
  3. Coral reefs host far more number of animal phyla than those hosted by tropical rainforests.

Which of the statements given above is/are correct?

- A) 1 and 2 only
- B) 3 only
- C) 1 and 3 only
- D) 1,2 and 3

## Coral Reef

- Coral reefs provide an important ecosystem for life underwater, protect coastal areas by reducing the power of waves hitting the coast, and provide a crucial source of income for millions of people. Coral reefs teem with diverse life. Thousands of species can be found living on one reef.
- Coral reefs are found in more than 100 countries around the world. Most reefs are located between the Tropics of Cancer and Capricorn, in the Pacific Ocean, the Indian Ocean, the Caribbean Sea, the Red Sea, and the Persian Gulf.
- A coral reef is made of thin layers of calcium carbonate

Coral polyps form a living mat over a calcium carbonate skeleton. Stony corals (or scleractinians) are the corals primarily responsible for laying the foundations of, and building up, reef structures.

88/A2018

- “Momentum for Change: Climate Neutral Now” is an initiative launched by
  - A) The Intergovernmental Panel on Climate Change
  - B) The UNEP Secretariat
  - C) UNFCCC Secretariat
  - D) The World Meteorological Organization



## “Momentum for Change: Climate Neutral Now”

- climate neutrality as having no net carbon (greenhouse gas) emissions. This is to be achieved by "minimizing carbon emissions as much as possible, and using carbon offsets or other measures to mitigate the remaining emissions."
- Climate Neutral Now is an initiative launched by UN Climate Change in 2015, aiming at encouraging all stakeholders in society to take climate action to achieve a climate neutral world by mid-century, as enshrined in the Paris Agreement adopted the same year.
- We have already reached 1.1 degrees Celsius of global warming.
- Climate compensation means financing a measure outside one's own operations. This measure will lead to a reduction in emissions that is equal to the emissions for which you compensate.

- With reference to educational institutions during colonial rule in India, consider the following pairs:

**INSTITUTIONS**

1. Sanskrit College at Benaras
2. Calcutta Madarsa
3. Fort William College

**FOUNDER**

- William Jones  
Warren Hasting  
Arthur Wellesley

Which of the pairs given above is/are correct?

- A) 1 and 2                      B) 2 only  
C) 1 and 3                      D) 3 only

## Sanskrit College at Banaras

- Jonathan Duncan was the founder of Sanskrit College of Banaras
- In 1791 he started the Sanskrit College at Benares for the study of Hindu law and Philosophy. (In 1958 the Sanskrit College became a university and in 1974 the name was changed to Sampurnanand Sanskrit University.) His illegitimate son, also named Jonathan Duncan, was an advocate of reforming the monetary system.
- **Government Sanskrit College, Varanasi** is an Indian university and institution of higher learning located in Varanasi, Uttar Pradesh, India, specializing in the study of Sanskrit

## Calcutta Madarsa

- Calcutta Madrasah, the first educational institution was set up in the Indian subcontinent by Warren Hastings, the then Governor General of East India Company in 1870. It became a leading centre of Islamic and Muslims' education.
- It was set up for the study and learning of Persian and Arabic.
- It also intended to focus on oriental learning and retaining the ancient practices of the country under the British rule.
- Calcutta Madrasa, The (later Calcutta Aliya Madrasa) was the earliest of the state-managed educational institutions under the British rule in India

## Fort William College

- Fort William College (also called the College of Fort William) was an academy and learning centre of Oriental studies established by Lord Wellesley, then Governor-General of British India.
- It was founded on July 10, 1800, within the Fort William complex in Calcutta.
- The main purpose of Fort William College was to train officials of the East India Company in Indian languages. In doing so, the college became a centre of Oriental studies through the translation of many books from Indian languages into English.

- Consider the following pairs:

**Regions sometimes  
Mentioned in News**

1. Catalonia
2. Crimea
3. Mindanao
4. Oromia

**Country**

- Spain  
Hungary  
Philippines  
Nigeria

Which of the pairs given above are correctly matched?

- A) 1,2 and 3                      B) 3 and 4 only  
C) 1 and 3 only                    D) 2 and 4 only

## Catalonia

- **Catalonia** is an autonomous community on the north eastern corner of Spain, designated as a nationality by its Statute of Autonomy.
- Catalonia consists of four provinces: Barcelona, Girona, Lleida,
- The capital and largest city is Barcelona

## Crimea

- **Crimea** is a peninsula located on the northern coast of the Black Sea in Eastern Europe that is almost completely surrounded by both the Black Sea and the smaller Sea of Azov to the north east.
- The status of Crimea is disputed. It is claimed by Ukraine.
- It is administered by Russia following its annexation in 2014



## Mindanao

- **Mindanao** also commonly known as Southern Philippines, is the second-largest island in the Philippines, after Luzon
- Mindanao and the smaller islands surrounding it make up the island group of the same name. Located in the southern region of the archipelago,
- Mindanao is considered the major breadbasket of the Philippines, with eight of the top 10 agri-commodities exported from the Philippines coming from there.
- Mindanao is known as "The Philippines' Land of Promise".

## Oromia

- The Oromia Region (Oromo: Oromiyaa) is a regional state in Ethiopia, the homeland of the Oromo people.
- Capital city of Oromia is Addis Ababa

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- Consider the following events:

1. The first democratically elected communist party government formed in a State in India
2. India's then largest bank, 'Imperial Bank of India', was renamed 'State Bank of India.'
3. Air India was nationalized and became the national carrier
4. Goa became a part of independent India

Which of the following is the correct chronological sequence of the above events?

- |            |            |
|------------|------------|
| A) 4-1-2-3 | B) 3-2-1-4 |
| C) 4-2-1-4 | D) 3-1-2-4 |

- Right to Privacy is protected as an intrinsic part of Right to Life and Personal Liberty.

Which of the following in the Constitution of India correctly and appropriately imply the above statement?

- A) Article 14 and the provisions under the 42<sup>nd</sup> Amendment to the Constitution
- B) Article 17 and the Directive Principles of State Policy in Part IV
- C) Article 21 and the freedoms guaranteed in PART III
- D) Article 24 and the provisions under the 44<sup>th</sup> Amendment to the Constitution

## Right to Privacy

- The **right to privacy** is protected as an intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution.
- The judgment also concludes that **privacy** is a necessary condition for the meaningful exercise of other guaranteed freedoms
- The inalienable human right to privacy has been a subject of international debate

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- Consider the following:
  1. Areca nut
  2. Barley
  3. Coffee
  4. Finger millet
  5. Groundnut
  6. Sesamum
  7. Turmeric

The Cabinet Committee on Economic Affairs has announced the Minimum Support Price for which of the above?

A) 1,2,3 and 7 only  
C) 1,3,4,5 and 6 only

B) 2,4,5 and 6 only  
D) 1,2,3,4,5,6 and 7

## Minimum Support Price

- Minimum Support Price (MSP) is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices.
- The minimum support prices are a guarantee price for their produce from the Government.
- As of now, Commission for Agricultural Costs & Prices (CACP) recommends MSPs of 23 commodities, which comprise 7 cereals (paddy, wheat, maize, sorghum, pearl millet, barley and ragi), 5 pulses (gram, tur, moong, urad, lentil), 7 oilseeds (groundnut, rapeseed-mustard, soyabean, seasmum, sunflower, safflower, nigerseed), and 4 commercial crops (copra, sugarcane, Cotton and raw jute).

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- In which one of the following States is Pakhui Wildlife Sanctuary located?
  - A) Arunachal Pradesh
  - B) Manipur
  - C) Meghalaya
  - D) Nagaland



## Pakhui Wildlife Sanctuary

- Pakke Tiger Reserve, also known as Pakhui Tiger Reserve, is a Project Tiger reserve in the in 2001, it was renamed Pakhui Wildlife Sanctuary and became Pakhui Tiger Reserve on 23 April 2002 as the 26th Tiger Reserve under Project Tiger reserve.
- It is in Arunachal Pradesh. It has area of 862 Skm.
- It is bounded by Bhareli or Kameng River in the west and north and by Pakke River in the east.
- This Tiger Reserve has won India Biodiversity Award 2016 in the category of 'Conservation of threatened species' for its Hornbill Nest Adoption Programme.

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- With reference to India's satellite launch vehicles, consider the following statements:
  1. PSLVs Launch the satellites useful for Earth resources monitoring whereas GSLVs are designed mainly to launch communication satellites
  2. Satellite Launched by PSLV appear to remain permanently fixed in the same position in the sky, as viewed from a particular location on Earth
  3. GSLV MkIII is a four-staged launch vehicle with the first and third stages using solid rocket motors; and the second and fourth stages using liquid rocket engines.

Which of the statements given above is/are correct?

- A) 1 only
- B) 2 and 3
- C) 1 and 2
- D) 3 only

## PSLV

- The Polar Satellite Launch Vehicle (PSLV) is a third generation rocket launcher designed by the Indian Space Research Organisation (ISRO). It is an expendable launch vehicle which can place remote sensing satellites into sun synchronous orbit (SSO) and small sized spacecraft into geostationary transfer orbit.
- PSLV is the third generation launch vehicle of India and the first Indian launch vehicle which is equipped with liquid stages.
- PSLV is designed mainly to deliver the earth observation or remote sensing satellites, whereas, GSLV has been designed for launching communication satellites.

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- With reference to the governance of public sector banking in India, consider the following statements:

1. Capital infusion into public sector banks by the Government of India has steadily increased in the last decade.
2. To put the public sector banks in order, the merger of associate banks with the parent State Bank of India has been affected

Which of the statements given above is/are correct?

- A) 1 only                      B) 2 only  
C) Both 1 and 2              D) Neither 1 nor 2

## Public Sector Banks

- State Bank of Bikaner and Jaipur (SBBJ), State Bank of Hyderabad (SBH), State Bank of Mysore (SBM), State Bank of Patiala (SBP) and State Bank of Travancore (SBT), besides Bharatiya Mahila Bank(BMB), merged with SBI with effect from April 1,2017.
- The merger will create a bigger SBI that will account for nearly a quarter of all outstanding loans in the country
- Integration of treasuries of the associate banks with the treasury of SBI will bring in substantial cost saving and synergy in treasury operations.
- SBI expected the merger to help drive synergies, reducing duplication and save on resources.

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- Consider the following items:
  1. Cereal grains hulled
  2. Chicken eggs cooked
  3. Fish processed and canned
  4. Newspapers containing advertising material

Which of the above items is/are exempted under GST (Goods and Services Tax)?

- A) 1 only                      B) 2 and 3 only  
C) 1,2 and 4 only          D) 1,2,3 and 4

## GST Exempted List

### List of Goods Exempt Under GST

- Live Animals.
- Meat.
- Fish, Meat and Fillets.
- Eggs, Honey and Milk Products.
- Non - Edible Animal Products.
- Live Trees and Plants.
- Vegetables.
- Fruits and Dry Fruits.
- Newspaper Books

- Consider the following statements:
  1. The definition of 'Critical Wildlife Habitat' is incorporated in the Forest Rights Act, 2006
  2. For the first time in India, Baigas have been given Habitat Rights.
  3. Union Ministry of Environment, Forest and climate change officially decides and declares Habitat Rights for Primitive and Vulnerable Tribal Groups in any part of India

Which of the statements given above is/are correct?

- A) 1 and 2 only                      B) 2 and 3 only  
C) 3 only                                D) 1,2 and 3



## ‘Critical Wildlife Habitat’

- Critical wildlife habitats (CWH) are defined under the Forest Rights Act, 2006, as the “areas of national parks and sanctuaries where it has been specifically and clearly established, case by case, on the basis of scientific and objective criteria, that such areas are required to be kept as inviolate for the purposes of wildlife conservation...”
- In its preamble to the guidelines, the Ministry emphasised that it “is in no way intended to cause or force resettlement or relocation of Scheduled Tribes and Other Forest Dwellers from National Parks and Wildlife Sanctuaries”, in a bid to ease the concerns of activists.
- The new guidelines envisage a bigger role for the gram sabha, whose free informed consent must be given before any relocation is carried out. It also seems to ensure that forest rights are settled under the FRA before a CWH can be declared in an area.

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- Consider the following:
  1. Birds
  2. Dust blowing
  3. Rain
  4. Wind blowing

Which of the above spread plant diseases?

- A) 1 and 3 only                      B) 3 and 4 only  
C) 1,2 and 4 only                    D) 1,2 ,3 and 4

## Plant Disease

- Infectious plant diseases are caused by living (biotic) agents, or pathogens. These pathogens can be spread from an infected plant or plant debris to a healthy plant. Microorganisms that cause plant diseases include nematodes, fungi, bacteria, and mycoplasmas.
- Diseases that attack the leaves of a plant are primarily spread by wind, but they can also move to nearby plants by taking a ride on splashing water droplets from rain or irrigation

- With reference to organic farming in India, consider the following statements:
  1. “The National Programme for Organic Production” (NPOP) is operated under the guidelines and directions of the Union Ministry of Rural Development.
  2. ‘The Agricultural and Processed Food Products Export Development authority’ (APEDA) functions as the Secretariat for the implementation of NPOP.
  3. Sikkim has become India’s first fully organic State

Which of the statements given above is/are correct?

- A) 1 and 2 only                      B) 2 and 3 only  
C) 3 only                                C) 1,2 and 3

## “The National Programme for Organic Production” (NPOP)

- The National Programme for Organic Production (NPOP) provides Standards for organic production, systems, criteria and procedure for accreditation of Certification Bodies, the National (India Organic) Logo and the regulations governing its use.
- Organic meat, poultry, eggs, and dairy products come from animals that are given no antibiotics or growth hormones.
- Organic food is produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation.

## ‘The Agricultural and Processed Food Products Export Development authority’ (APEDA)

- Agricultural & Processed Food Products Export Development Authority (APEDA) is a government organization established in 1985 through an act for the development and promotion of export of scheduled products. It provides financial assistance, information, guidelines towards the development of scheduled products.
- In FY19, export of agricultural and processed food products totalled US\$ 38.49 billion. During the period, top commodities to be exported were basmati rice (US\$ 4.71 billion), buffalo meat (US\$ 3.58 billion) and non-basmati rice (US\$ 3.00 billion).
- Grapes, Pomegranates, Mangoes , Bananas, Oranges account for larger portion of fruits exported from the country while Onions, Mixed Vegetables, Potatoes, Tomatoes, and Green Chilly contribute largely to the vegetable export basket.

## Answers

1	B	11	C	21	B	31	C	41	C
2	D	12	D	22	B	32	A	42	D
3	C	13	A	23	A	33	A	43	C
4	B	14	D	24	B	34	C	44	B
5	A	15	C	25	B	35	B	45	C
6	C	16	A	26	D	36	B	46	B
7	A	17	C	27	D	37	B	47	C
8	D	18	D	28	A	38	B	48	C
9	C	19	A	29	A	39	A	49	C
10	C	20	B	30	A	40	B	50	D

## Answers

51	C	61	A	71	B	81	B	91	B
52	C	62	D	72	D	82	B	92	C
53	B	63	B	73	B	83	B	93	B
54	A	64	B	74	C	84	D	94	A
55	D	65	A	75	C	85	A	95	A
56	C	66	B	76	D	86	B	96	B
57	C	67	D	77	A	87	D	97	C
58	C	68	D	78	C	88	C	98	A
59	C	69	C	79	A	89	B	99	D
60	D	70	D	80	B	90	C	100	B



Thank You