



Anusha Learning
Online IAS Academy

IAS PRELIMS
2019
SERIES A
ANSWERS WITH NOTES

A1/2019

- With reference to Mughal India, what is/are the difference /differences between Jagirdar and Zamindar?

1. Jagirdars were holders of land assignments in lieu of judicial and police duties, whereas Zamindars were holders of revenue rights without obligation to perform any duty other than revenue collection.

2. Land assignments to Jagirdars were hereditary and revenue rights of Zamindars were not hereditary.

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

Jagirdars & Zamindars

- Jagirdars under Mansabdari system were assigned land in lieu of assigned duties towards the empire such as police, judicial, military.
- Zamindars had to render military duties
- Jagirdars could be transferred from one Jagir or mansab as per rank of jagir/mansab
- Zamindars had heredity rights over revenue

A2/2019

- With reference to land reforms in independent India, which one of the following statements is correct?
 - A) The ceiling laws were aimed at family holdings and not individual holdings
 - B) The major aim of land reforms was providing agricultural land to all the landless
 - C) It resulted in cultivation of cash crops as a predominant form of cultivation
 - D) Land reforms permitted no exemptions to the ceiling limits.

Land Reforms

- The Land reform constitutes the most important measures to improve the economic condition of agricultural tenants.
- The Land reforms program in post-Independence India has evolved through different phases and these includes Abolition of Intermediaries, Tenancy reforms, consolidation of holdings and determination of holdings per family, imposition of ceilings with fewer exemptions, and to distribute surplus land among landless peoples.

A3/2019

- The Global Competitiveness Report is published by the
 - A) International Monetary Fund
 - B) United Nations Conference on Trade and Development
 - C) World Economic Forum
 - D) World Bank

The Global Competitiveness Report

- The Global Competitiveness Report (GCR) is a yearly report published by the World Economic Forum.
- The World Economic Forum defines **global competitiveness** as "the ability of a country to achieve sustained high rates of growth in gross domestic product (GDP) per capita."
- **Competitiveness** is considered as a key criterion for assessing the success of countries, industries and companies. Putting it in perspective, companies and industries must be well **competitive** in domestic and international markets in order to survive.

A4/2019

- Consider the following statements about ‘the charter Act of 1813’:
 1. It ended the trade monopoly of East India Company in India except for trade in tea and trade with China
 2. It asserted the sovereignty of the British Crown over the Indian territories held by the Company.
 3. The revenues of India were now controlled by the British Parliament.

Which of the statements given above are correct?

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

‘The charter Act of 1813’

- The Charter Act of 1813 ended trade monopoly of East India company in India except for trade in tea and trade in China.
- Further it also asserted sovereignty of British Crown over the Indian territories held by company.
- However the Company was to retain the possession of territories and revenues for 20 years more without prejudice to British Crown.
- **Charter Act of 1813** asserted the Crown's sovereignty over British India by defining the constitutional position of British in India. It also increases the realm of British merchants in private trading. Trade with India for all commodities except Tea was thrown open to all British subjects.

A5/2019

- With reference to Swadeshi Movement, consider the following statements:
 1. It contributed to the revival of the indigenous artisan crafts and industries
 2. The National Council of Education was established as a part of Swadeshi Movement.

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

Swadeshi Movement

- Swadeshi Movement started after the Partition of Bengal in 1905 and continued up to 1911.
- Boycott movement was also launched along with the Swadeshi movement.
- The movements included using goods produced in India and burning British-made goods.
- Goal was self reliance and revival of indigenous artisans and home industry.
- It was the most successful of the pre-Gandhian movements. Its chief architects were Aurobindo Ghosh, Lokmanya Bal Gangadhar Tilak, Bipin Chandra Pal, Lala Lajpat Rai,

A6/2019

- Consider the following pairs:
 1. All India Anti Untouchability League: Mahatma Gandhi
 2. All India Kisan Sabha: Swami Sahajananad Saraswati
 3. Self-Respect Movement: E. V. Ramaswami Naicker

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

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

All India Anti Untouchability League

- On 30 September, **Gandhi** founded All India Anti Untouchability League, to remove untouchability in the society, which later renamed as Harijan Sevak Sangh ("Servants of Untouchables Society").
- At the time industrialist Ghanshyam Das Birla was its founding president with Amritlal Takkar as its Secretary.
- Gandhi Ji was in Jail at that time
- After the signing of Poona Pact, this organization was renamed the Harijan Sewak Sangh.

All India Kisan Sabha

- All India Kisan Sabha was founded by Swami Sahajanand Saraswati in 1936 to spearhead peasant movements in colonial India.
- **All India Kisan Sabha** was the name of the peasants front of the Communist Party of India.
- Sabha worked for farmers rights and anti feudal movement in India.

Self-Respect Movement

- The Self-Respect Movement is a South Asian movement with the aim of achieving a society where backward castes have equal human rights, and encouraging backward castes to have self-respect in the context of a caste-based society that considered them to be a lower end of the hierarchy.
- E V Ramaswamy Naicker started Self respect movement against untouchability in 1925.
- Naiker also known as Periyar was an Indian social activist and politician who started the Self-Respect Movement and Dravidar Kazhagam. He is known as the 'Father of the Dravidian movement'.

Periyar

- Periyar was initially an enthusiastic supporter of Non-Cooperation movement but left the Congress in 1925 as he believed that the Congress was neither able nor willing to provide importance to the concerns of non-Brahmins.
- He was particularly angered by Gandhi's pro-Brahman speeches in Madras during his trip in 1927.

A7/2019

- Which one of the following is NOT a Harappan site?
 - A) Chanhudaro
 - B) Kot Diji
 - C) Sohgaora
 - D) Desalpur

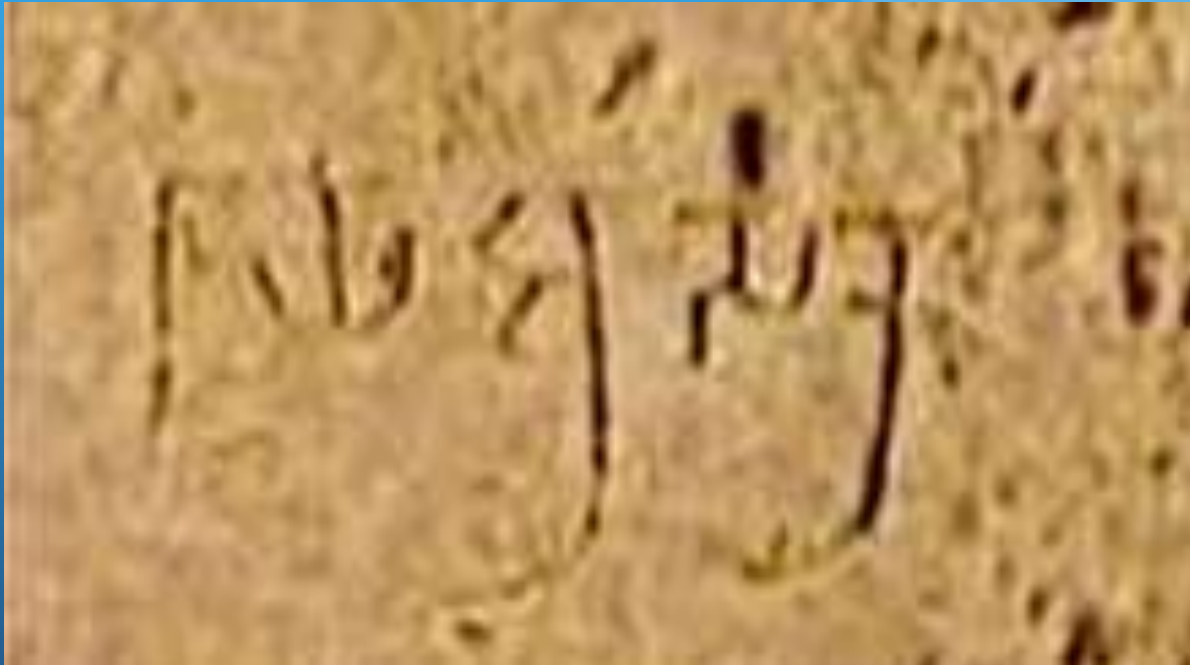
Harappan Sites

- As of 2019, over 1500 Indus Valley Civilization sites have been discovered, of which 475 sites are in Pakistan and 925 sites in India, while some sites in Afghanistan are believed to be trading colonies.
- As early as 1826 Harappa, located in west Punjab, attracted the attention of Daya Ram Sahni, who gets credit for preliminary excavations of Harappa.
- Harappa, Mohanjodaro, Banawali and Dholavira are considered as the four main Harappan Sites.
- There are seven important cities in Indus valley civilization: Mohanjodaro. Harappa. Kalibangan. Lothal. Chanhudaru. Dholavira. Banawali.

- In which of the following relief sculpture inscriptions is 'Ranyo Ashoka' (king Ashoka) mentioned along with the stone portrait of Ashoka?
 - A) Kanganahalli
 - B) Sanchi
 - C) Shahbazgarhi
 - D) Sohgaura

Ranyo Ashoka

- **Kanaganahalli** is about 3 km from Sannati. An important Buddhist site, the place where an ancient Buddhist Mahastupa site found.
- Kanaganahalli in Karnataka is the site with an inscription in Brahmi script reading Ranyo Ashoka and a sculpture of King Ashoka.
- The Stupa of Kanaganahalli dates from 1st century of BC to 3rd century of AD.
- The **Minor Rock Edicts** can be found throughout the territory of Ashoka, including in the frontier area near the Hindu Kush, and are especially numerous in the southern, newly conquered, frontier areas of Karnataka and southern Andhra Pradesh.



The words “Raya Asoko” in Brahmi script inscribed

A9/2019

- Consider the following:
 1. Deification of the Buddha
 2. Treating the path of Bodhisattvas
 3. Image worship and rituals

Which of the above is/are the feature/ features of Mahayana Buddhism?

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

Mahayana Buddhism

- Mahayana Buddhism (or the Mahayanas) can be defined as a major movement in the history of Buddhism which has its origins in northern India. It is made up of many schools and reinterpretations of fundamental human beliefs, values and ideals not only those of the Buddhist teachings.
- Mahāyāna Buddhists teach that enlightenment can be attained in a single lifetime and this can be accomplished even by a layperson. The Mahāyāna tradition is the largest major tradition of Buddhism existing today.
- Mahayana Buddhism promoted devotional support, Deification of Buddha, icon worship and rituals and treading path of Bodhisattvas.

A10/2019

- With reference to forced labour (Vishti) in India during the Gupta period, which one of the following statements is correct?
 - A) It was considered a source of income for the state, a sort of tax paid by the people
 - B) It was totally absent in the Madhya Pradesh and Kathiawar regions of the Gupta Empire
 - C) The forced labourer was entitled to weekly wages
 - D) The eldest son of the labourer was sent as the forced labourer

Forced labour (Vishti)

- Vishti was considered as a source of income for the state, a sort of tax by the people.

A11/2019

- Building 'kalyana Mandapas' was a notable feature in the temple construction in the kingdom of
 - A) Chalukya
 - B) Chandela
 - C) Rashtrakuta
 - D) Vijaynagara

‘kalyana Mandapas’

- In the Vittala Temple of Hampi, pavilions or mandapas that were meant to celebrate the marriages of deities were known as Kalyan Mandapa.
- Kalyana mandapa, is a notable feature in the temple construction in the kingdom of Pallavas.
- Pallavas were great rulers of south India with a great taste in art and architecture.
- They built a number of temples during their era mostly of deity Shiva.

- Consider the following statements:
- 1. In the revenue administration of Delhi Sultanate, the in-charge of revenue collection was known as 'Amil'
- 2. The Iqta system of Sultans of Delhi was an ancient indigenous institution
- 3. The office of "Mir Bakshi" came into existence during the reign of Khalji Sultans of Delhi

Which of the statements given above is/are correct?

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

‘Amil’

- In the Delhi Sultanate, the task of collecting revenue directly from peasant and measurement of land rested on Amils.

Iqta System

- Under **Iqta System**, the land of the empire was divided into several large and small tracts called **Iqta** and assigned these Iqtas to his soldiers, officers and nobles. In the beginning, an Iqta was based upon salary. Later, under Firoz Shah Tughlaq it became hereditary. Large Iqtas and Small Iqtas.
- **The first Iqta in India**- The region of Hansi (Haryana) given by Muhammad Gauri to Kutubuddin Aibak in the form of an Iqta was the first Iqta.

Mir Bakshi

- Mir Bhakshi was the head of military department in Mughal India
- Balaban was the first to separate military department with finance department.
- Duties of Mir Bakshi: (1) to look after Mansabdars; (2) he signed all the 'Taliqas' (appointment letters); (3) decide the conditions of Dagh; (4) his signature and seal was called Sarhkhat; (5) he also recommended the names of place guards for rewards, meritorious service; (6) accompanied the emperor on the battle field.

- Consider the following statements:
 1. Saint Nimbarka was a contemporary of Akbar
 2. Saint Kabir was greatly influenced by Shaikh Ahmed Sirhindi
- 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

Saint Nimbarka

- Nimbarka was a 13th century philosophical Saint
- According to Nimbarka, there are three categories of existence, namely Isvara (God, Divine Being); *cit* (the individual soul); and *acit* (lifeless matter).
- According to Nimbarka, the relation between Brahman, on the one hand, and the souls (*cit*) and universe (*acit*) on the other, is a relation of natural difference-non-difference (*svabhavika-bhedabheda*)
- The Nimbarka Sampradaya is one of the four Vaishnava Sampradaya.

Saint Kabir

- Saint Kabir was 15th century poet
- His writings influenced Hinduism's Bhakti movement.
- His verses are found in Guru Granth Sahib
- His early life was in a Muslim Family, but he was strongly influenced by his teacher, the Hindu bhakti leader Ramananda.
- He was critical of both Hinduism and Islam
- He questioned tradition of sacred thread and circumcision.
- Kabir suggested that Truth is with the person who is on the path of righteousness, considered all creatures on earth as his own self, and who is passively detached from the affairs of the world

- With reference to the British colonial rule in India, consider the following statements:
- 1. Mahatma Gandhi was instrumental in the abolition of the system of 'indentured labour'
- 2. In lord Chelmsford's War Conference Mahatma Gandhi did not support the resolution on recruiting Indians for World War.
- 3. Consequent upon the breaking of Salt Law by Indian people, the Indian National Congress was declared illegal by the colonial rulers.

Which of the statements given above are correct?

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

'indentured labour'

- In South Africa, Gandhi in opposition to compulsory registration of Indian population under Asiatic Law Amendment Act of the Transvaal government organised non-violent protest which led to passing of Indian Relief Act 1914- which eliminated extra tax on Indian citizens who had not renewed their indentures and recognised validity of Indian marriages.

Recruitment for War

- In the Young India article dated 27 Nov ,1920 - “To Every Englishmen In India”, Gandhi quoted his recruiting campaign which was carried out in Kaira District (Gujarat) in support of British Cause in World War I according to the promise made in War Conference of Delhi.

Salt March

- As the Salt March ended in month of April 1930, between June and August several Congress Working Committees and leaders were arrested and Congress as an political was declared illegal by the British Administration.

A15/2019

- With reference to Indian National Movement, consider the following pairs:

PERSON	POSITION HELD
1. Sir Tej Bahadur Sapru	:: President All India Liberal Federation
2. K C Neogy	:: Member the Constitution Assembly
3. P C Joshi.	:: General Secretary Communist Party of India

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

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

Tej Bahadur Sapru (1875 -1949)

- He was a prominent Indian Freedom fighter, lawyer and politician.
- Tej Bahadur Sapru was a prominent member of Liberal Party of India and the President of All India Liberal Federation.
- For his integrity and wisdom he was trusted both by the British government and by Indian intellectual and political leaders.
- He was knighted in 1922.

Sapru Committee Report

- Non-Party Conference set up a committee in 1941 and appointed Tej Bahadur Sapru as its Chairman.
- The Sapru Committee consisted of thirty members who had distinguished themselves in public affairs and did not operate under the mandate of any political party.
- *to examine the whole communal and minorities question from a constitutional and political point of view, put itself in touch with the different parties and their leaders, including the minorities interested in the question, and present a solution...'*
- The *Report* rejected the Muslim League's demand for Pakistan
- The report was ignored or denounced
- Seven members of the committee went on to become the members of the Constituent Assembly.

K C Neogy

- **KC Neogy**, was an Indian politician from West Bengal. He was a member of the Constituent Assembly of India, member of the first Cabinet of independent India and the chairman of the first Finance Commission of India.

P C Joshi 1907-1980

- He was one of the early leaders of the communist movement in India. He was the first general secretary of the Communist Party of India from 1935-47.
- He was 23rd Pro Vice Chancellor of University of Delhi is a Professor of Social Anthropology at the Department of Anthropology, University of Delhi.
- He was the Chairman Software Committee for Doordarshan

- With reference to Mian Tansen, which one of the following statements is not correct?
 - A) Tansen was the title given to him by Emperor Akbar
 - B) Tansen composed Dhrpada on Hindu gods and goddesses
 - C) Tansen composed songs on his patrons
 - D) Tansen invented many Ragas

Mian Tansen

- Tansen was the title given by Raja Vikramjit of Gwalior. Tansen was a court musician in the darbar of Raja Ramachandra of Bandavagarh (Rewa).
- Tansen composed Dhrupads on Hindu gods and goddesses.
- Tansen composed songs on his patrons.
- Tansen invented many Ragas.

A17/2019

- Who among the following Mughal Emperors shifted emphasis from illustrated manuscripts to album and individual portrait?
 - A) Humayun
 - B) Akbar
 - C) Jahangir
 - D) Shah Jahan

Illustrated manuscripts to album and individual portrait

- During Akbar's reign many manuscripts were illustrated, the prominent being Razmnamah, the Persian translation of Mahabharata.
- It was during Jahangir's reign that manuscripts became less important and individual portraits became more prominent.

A18/2019

- Which one of the following National Parks lies completely in the temperate alpine zone?
 - A) Manas National Park
 - B) Namdhapa National Park
 - C) Neora Valley National Park
 - D) Valley of Flowers National Park

Temperate Alpine Zone ; Valley of Flowers National Park

- The Valley of Flowers national park located in the Chamoli district of Uttarakhand and is known for its meadows of endemic alpine flowers and the variety of flora. Situated approximately 3255m above sea level, this splendid park is spread across 87.5 sq km of land.
- The valley has three sub-alpine between 3,200m and 3,500m which is the limit for trees, lower alpine between 3,500m and 3,700m, and higher alpine above 3,700m.
- The rich diversity of species reflects the valley's location within a transition zone between the Zaskar and Great Himalayas ranges to the north and south, respectively, and between the Eastern Himalaya and Western Himalaya flora.

Neora Valley National Park

- Neora Valley National Park is situated in Kalimpong district West Bengal. It was established in 1986
- It spreads over an area of 88 km² and is one of the richest biological zones in the entire Eastern India. It borders Sikkim and Bhutan.
- It is the land of red panda
- The highest point is Rachela Danda. The forest in Neora Valley has such luxurious growth that even sunlight finds it difficult to touch the ground. Much of the park is still inaccessible.
- Virgin natural forests, dense bamboo groves, colourful canopy of Rhododendron trees, lush green valley, meandering rivers and streams with snowcapped mountains in the backdrop form a picturesque landscape.

Red panda

- The red panda is a mammal species native to eastern Himalayas and south western China.
- It is listed as Endangered on the IUCN Red List
- Population declining due to habitat loss and fragmentation, poaching
- It is not related to giant panda.
- It is arboreal and feeds mainly on bamboo but also eats birds eggs and insects.
- The red panda has reddish-brown fur.



A19/2019

- Atal Innovation Mission is set up under the
 - A) Department of Science and Technology
 - B) Ministry of Labour and Employment
 - C) NITI Aayog
 - D) Ministry of Skill Development and Entrepreneurship

Atal Innovation Mission

- The Atal Innovation Mission (AIM) is a flagship initiative set up by the NITI Aayog to promote innovation and entrepreneurship across the length and breadth of the country, based on a detailed study and deliberations on innovation and entrepreneurial needs of India in the years ahead.
- Atal tinkering lab (ATL) is an approach of Central government of India to create an environment of scientific temperament, innovation, creativity amongst Indian Students. ATL lab would teach students essential 21st-century skills which will help them in developing their professional and personal skills.
- NITI Aayog's Atal Innovation Mission (AIM) has selected 3,000 additional schools for the establishment of Atal Tinkering Labs (ATLs), bringing the total number of ATL schools to 5,441

A20/2019

- On 21st June, the Sun
 - A) does not set below the horizon at the Arctic Circle
 - B) does not set below the horizon at Antarctic Circle
 - C) Shines vertically overhead at noon on the Equator
 - D) Shines vertically overhead at the Tropic of Capricorn

21st June, Sun Position

- Like the equator, the **Arctic Circle** is an imaginary line. It's defined as the latitude above which the sun does not set on the day of the summer solstice (usually around **June 21**). Above the Arctic Circle, the sun never rises on the day of the winter solstice (usually around **December 21**).
- Because of the earth's tilt, areas above the Arctic Circle receive 24 hours of **sunlight** each summer, but 24 hours of **darkness** each winter.
- On **June 21-22**, the Sun's perpendicular rays (witnessed by **90° position of sun at noon**) shine down at **23.5° N latitude (Tropic of Cancer)**. b. From **June to September 21**, the Sun's perpendicular rays migrate from **23.5° N latitude to the equator (0°latitude)**.

A21/2019

- Which one of the following groups of plants was domesticated in the 'New World' and introduced into the 'Old World'?
 - A) Tobacco, cocoa, and rubber
 - B) Tobacco, cotton and rubber
 - C) Cotton, coffee and Sugarcane
 - D) Rubber, coffee and wheat

New World Crops

- New World crops are those crops , food and otherwise, that were native to the New World, before 1492 AD and not found anywhere else at that time.
- New World Crops: Maize, winter squash and climbing beans, sunflower, cashew, potatoes, tomatoes, chill, cacao, Bananas, Rubber, Papaya, guava, cotton

Old World Crops

- Rice, Wheat, barley, oats, onions, cabbage lettuce peaches, pears sugar, cotton

New World

- The **New World** is one of the names used for the majority of Earth's Western Hemisphere specifically the Americas
- The term gained prominence in the early 16th century, during the Age of Discovery. America represented a new continent

Old World

- Earlier Geographers thought world consisted of Africa, Europe and Asia.
- Collectively Africa, Europe and Asia are referred as Old World

A22/2019

- Consider the following statements:
 1. Asiatic lion is naturally found in India only
 2. Double-humped camel is naturally found in India only
 3. One-horned rhinoceros is naturally found in India only

Which of the statements given above is/are correct?

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

Asiatic Lion

- There are only several hundred Asiatic lions in the wild, and they only live in the **Gir Forest**
- Asian lions are slightly smaller than African lions.
- The Asiatic lions are carnivores. They mainly feed on wild boars, **buffaloes**, antelopes and deer.

Double-humped camel

- Double-hump camels, usually named after cricket stars, are exclusively found in this region of Ladakh and act as a major attraction for both domestic and international tourists
- Bactrian camels are exceptionally adept at withstanding wide variations in temperature, ranging from freezing cold to blistering heat. They have a remarkable ability to go without water for months at a time, but when water is available they may drink up to 57 litres at once
- They are primarily herbivorous.

One-horned rhinoceros

- The African rhino is divided into two species, the **black rhino** and the **white rhino**. **White rhinos** mainly live in South Africa
- About 3,500 greater one-horned rhinos are estimated to remain in India and Nepal today, with India hosting around 2,500 of these animals. But the rhino populations are concentrated in just a few protected areas. In India, rhinos are currently found in three states: **Assam**, **West Bengal** and **Uttar Pradesh**.
- The Indian rhinoceros also called greater one-horned rhinoceros native to Indian subcontinent. It is listed as **Vulnerable** on the IUCN Red List.

A23/2019

- Consider the following pairs:

FAMOUS PLACE

RIVER

1. Pandharpur	::	Chandrabhaga
2. Tiruchirappalli	::	Cauvery
3. Hampi.	::	Malaprabha

Which of the pairs given above are correctly matched?

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

Pandharpur

- Pandharpur is a pilgrimage city on the banks of Chandrabhaga river in Solapur district of Maharashtra.
- The Vithoba (Vitthal-Rukmani) temple has major festival yatra in Ashad month. Vithoba also known as Paduranga
- The Bhakti Saint, Chaitanya Mahaprabhu spent 7 days at Vithoba temple.
- It is said that lord vitthal came pandharpur to meet his disciple bhakt pundlik who was busy serving his parents that time, so he offered brick (vit) for vitthal to stand some time. Time from when vitthal is standing is said to be 28 yug. So in aarati of vitthal it is mentioned " yuge atthavis (28), vithevari ubha ".

Tiruchirappalli

- Tiruchirappalli is district of Tamil Nadu.
- Trichy is famous for its rich cultural and architectural heritage. Trichy is the gateway to many eminent temple cities and historical sites of Tamil Nadu.
- It is located along the Kaveri River.
- Other rivers are Kollidam, Koraiyar, Kudamuruti
- Famous temples: Sriangam Temple; Thiruvanaikaval temple

Hampi

- Hampi is a UNESCO World Heritage Site located in east-central Karnataka.
- **Hampi** is famous for its ruins belonging to the erstwhile medieval Hindu kingdom of Vijaynagar and it is declared a World Heritage site. The temples of **Hampi**, its monolithic sculptures and monuments, attract the traveller because of their excellent workmanship.
- **Virupaksha Temple** is located in Hampi, it is dedicated to Lord **Virupaksha**, a form of **Shiva**.
- Hampi is situated on the banks of the **Tungabhadra River**

- In a given year in India, official poverty lines are higher in some States than in other because
 - A) Poverty rates vary from State to State
 - B) Price levels vary from State to State
 - C) Gross State Product varies from State to State
 - D) Quality of public distribution varies from State to State

Poverty Line

- **Poverty Line** It is an imaginary line used by any country to determine its poverty. Poor It is person which lacks the financial resources and essential things to enjoy. Calories and Rupees fixed for rural and urban areas to measure poverty line.
- The official poverty rate in 2018 was **11.8 percent**, down 0.5 percentage points from **12.3 percent** in 2017. This is the fourth consecutive annual decline in poverty. Since 2014, the poverty rate has fallen 3.0 percentage points, from **14.8 percent** to **11.8 percent**.
- The economy of **Maharashtra** is the largest in India . **GDP Rs 27.96 lakh crore**

Poverty line of States

- RBI gives Poverty lines of states.
- The rank is calculated according to the percentage of people below poverty-line and is based on MRP-consumption.
- **Poverty** estimates in advanced economies are based on the calculation of relative **poverty**, with the average standard of living used as the reference point. People are counted as poor if they cannot maintain this level. In India, **poverty** is estimated at absolute level or the minimum money required for subsistence
- The **poverty threshold does not vary by state**
- In 2019: Uttar Pradesh had the lowest (28.61), followed by Bihar (32.11) and Odisha (35.97).

A25/2019

- In the context of which of the following do some scientists suggest the use of cirrus cloud thinning technique and the injection of sulphate aerosol into stratosphere?
 - A) Creating the artificial rains in some regions
 - B) Reducing the frequency and intensity of tropical cyclones
 - C) Reducing the adverse effects of solar wind on the Earth
 - D) Reducing the global warming

Use of cirrus cloud thinning technique and the injection of sulphate aerosol into stratosphere

- Cirrus clouds reflect sunlight and absorb warming infrared radiation.
- This results in net warming effect on the climate.
- Therefore, thinning or removing these clouds would reduce their heat trapping capacity.
- This climate engineering can be an effective tool to reduce anthropogenic (Caused by men) global warming.
- Cirrus clouds in the high latitude upper troposphere are formed by homogeneous freezing into large number of ice crystals.
- By seeding with aerosols ice crystals could grow rapidly and deplete water vapor. Net effect will be reduced optical thickness.

A26/2019

- In the context of which one of the following are the terms 'pyrolysis and plasma gasification' mentioned?
 - A) Extraction of rare earth elements
 - B) Natural gas extraction technologies
 - C) Hydrogen fuel-based automobiles
 - D) Waste-to-energy technologies

'Pyrolysis'

- **Pyrolysis** is a thermochemical treatment, which can be applied to any organic (carbon-based) product. It can be done on pure products as well as mixtures. In this treatment, material is exposed to high temperature, and in the absence of oxygen goes through chemical and physical separation into different molecules.
- **Pyrolysis** is commonly used to convert organic materials into a solid residue containing ash and carbon, small quantities of liquid and gases. Extreme **pyrolysis**, on the other hand, yields carbon as the residue and the process is called carbonization.

Plasma Gasification

- **Plasma gasification** is an extreme thermal process using plasma which converts organic matter into a syngas (synthesis gas) which is primarily made up of hydrogen and carbon monoxide.
- **Plasma gasification** is a multi-stage process which starts with feed inputs ranging from waste to coal to plant matter, and can include hazardous wastes.
- During **gasification**, carbon-based materials break down into gases and the inorganic materials melt into liquid slag which is poured off and cooled.
- **Pyrolysis, gasification and plasma** technologies are thermal processes that use high temperatures to break down waste.
- The waste is broken down to create gas, solid and liquid residues. The gases can then be combusted in a secondary process.

A27/2019

- Which of the following are in Agasthyamala Biosphere Reserve?
 - A) Neyyar, Peppara and Shendurney Wildlife Sanctuaries and Kalakad Mundanthurai Tiger reserve
 - B) Mudumalai, Sathyamangalam and Wayanad Wild life Sanctuaries and Silent Valley National Park
 - C) Kaundinya, Gundla Brahmeswaram and Papikonda Wildlife Sanctuaries and Mukurthi National Park
 - D) Kawal and Sri Vekateswara Wild life Sanctuaries and Nagarjunasagar-Sirsilam Tiger Reserve

Agasthyamala Biosphere Reserve

- The Agasthyamalai Biosphere Reserve was Established in 2001
 - Includes 182888 sq. km. of Kerala and 1672 sq. km. of Tamil Nadu
 - It is under UNESCO's world list of biosphere reserve
 - It is composed of
 - Peppara and Shenduney Wildlife sanctuaries
 - Kalakkad Mundanthurai Tiger Reserve
 - Bengal Tiger, Asian Elephant and Nilgiri Tahr, Kanikaran
- FLORA
- Indian Ecoregions of tropical wet evergreen forests, South Western Ghats moist deciduous forests, South Western Ghats montane rain forests and Shola
- 2000 varieties of medicinal plants 50 are rare and endangered species

A28/2019

- Consider the following statements:
 1. Some species of turtles are herbivores
 2. Some species of fish are herbivores
 3. Some species of Marine mammals are herbivores
 4. Some species of snakes are viviparous
- Which of the statements given above are correct?
 - A) 1 and 3 only
 - B) 2,3 and 4 only
 - C) 2 and 4 only
 - D) 1,2,3 and 4

Herbivores

- Green sea turtles eat seagrasses and algae, though juveniles snack on crabs, sponges, and jellyfish. Parrotfish are algae eaters. They obtain the algae by ripping small chunks of coral from a reef.
- The fish's grinding teeth, located in its throat, pulverize the coral. The teeth allow the fish to extract the algae from the centre of the polyp inside.
- Manatees, sometimes called sea cows, are large mammals that live in warm sea waters. They live in shallow coastal areas and feed on sea vegetation.
- Snakes that are viviparous nourish their developing young through a placenta and yolk sac, something that is highly unusual among reptiles.

A29/2019

- Consider the following pairs:

Wildlife

Naturally found in

- | | | |
|--------------------------|----|---------------|
| 1. Blue-finned Mahaseer. | :: | Cauvery River |
| 2. Irrawaddy Dolphin. | :: | Chambal River |
| 3. Rusty-spotted Cat. | :: | Eastern Ghats |

Which of the pairs given above are correctly matched?

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

Blue-finned Mahaseer

- The Western Ghats region is famous for freshwater biodiversity. Mahseer, belonging to the genus *Tor*, is considered a prized sports fish of great cultural value. In the Cauvery the Mahseer community comprises two varieties—a “blue-finned” fish and an “orange-finned, hump-backed” one.

Irrawaddy Dolphin

- Irrawaddy dolphins are distributed in shallow, near-shore tropical and subtropical marine waters. They are primarily found in estuaries and semi-enclosed water bodies such as bays and sounds, usually close to mangrove forests.

Rusty-spotted Cat.

- Forests of the Eastern Ghats are home to some endangered and lesser-known mammal species like the Fishing Cat, Rusty Spotted Cat, Indian Pangolin etc.

- Why is there a great concern about the 'microbeads' that are released into environment?
 - A) They are considered harmful to marine ecosystems
 - B) They are considered to cause skin cancer in children
 - C) They are small enough to be absorbed by crop plants in irrigated fields
 - D) They are often found to be used as food adulterants

Microbeads

- **Microbeads** are manufactured solid plastic particles of less than one mm in their largest dimension.
- They are most frequently made of polyethylene but can be of other petrochemical plastics such as polypropylene and polystyrene.
- They are used in exfoliating personal care products, toothpastes and in biomedical and health-science research.
- Microbeads can cause plastic particle water pollution and pose an environmental hazard for aquatic animals in freshwater and ocean water.

A31/2019

- Recently, there was a growing awareness in our country about the importance of Himalayan nettle (*Girardinia diversifolia*) because it is found to be a sustainable source of
 - A) anti-malarial drug
 - B) biodiesel
 - C) pulp for paper industry
 - D) textile fibre

Himalayan nettle

- This is found in open forest land, riverside in Uttarakhand, HP, and J&K.
- It grows naturally at elevations 1200M - 3000M.
- It is a shade tolerant, tall, stout and erect herb growing up to 3M
- The stem contains bast fiber of unique quality which is strong and light.
- Can be used for making cloth, bags , floor mats and ropes.
- It is biodegradable.



For the measurement/ estimation of which of the following are satellite images/ remote sensing data used?

1. Chlorophyll content in the vegetation of a specific location
2. Greenhouse gas emissions from rice paddies of a specific location
3. Land surface temperatures of a specific location

Select the correct answer using the code given below

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

Remote Sensing Satellite

- **Remote sensing** is the science of obtaining information about objects or areas from a distance, typically from aircraft or **satellites**
- **Remote sensing** is the process of detecting and monitoring the physical characteristics of an area by measuring its reflected and emitted radiation at a distance
- Cameras on **satellites** can be used to make images of temperature changes in the oceans.
- Uses: Weather; Forestry; Agriculture; Surface changes; Biodiversity; Disaster Management; Crop health analysis

A33/2019

- Consider the following States:
 1. Chhattisgarh
 2. Madhya Pradesh
 3. Maharashtra
 4. Odisha

With reference to the states mentioned above, in terms of percentage of forest cover to the total area of state, which one of the following is the correct ascending order?

A) 2-3-1-4
C) 3-2-4-1

B) 2-3-4-1
D) 3-2-1-4

Forest cover of States

STATE	FOREST COVER % to TOTAL AREA
Chhattisgarh	41
Orissa	32
MP	25
Maharashtra	16

A34/2019

- Which of the following statements are correct about the deposits of methane hydrate?
 1. Global warming might trigger the release of methane gas from these deposits
 2. Large deposits of 'methane hydrate' are found in Arctic Tundra and under the sea floor
 3. Methane in atmosphere oxides to carbon dioxide after a decade or two

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 |

Methane Hydrate

- Methane escaping from disturbed undersea hydrates may be an ecological threat. Released methane can add to global warming.
- Gas hydrate deposits are found wherever methane occurs in the presence of water under elevated pressures and at relatively low temperatures, such as beneath permafrost or in shallow sediments along deep water continental margins.
- The main cause for concern is that the Arctic Ocean could warm up if buried methane gas is released.
- In the past, coalbed methane was often the cause of numerous explosions in underground mines.
- In the presence of free oxygen, a methane molecules single atom of carbon disengages from its four hydrogen atoms to become carbon dioxide.

A35/2019

- Consider the following:

1. Carbon monoxide
2. Methane
3. Ozone
4. Sulphur dioxide

Which of the above are released into atmosphere due to the burning of crop/biomass residue?

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

Burning of crop residue

- Total global open burning of biomass accounts for nearly 37 percent of global black carbon. This includes burning of forest, savannah, and agriculture residue.
- Rice residue open burning is a part of biomass burning which occurs annually and is widely used to remove residue, control weeds and release land for the next crop cycle.
- Punjab and Haryana are both responsible for causing air pollution due to burning. These two states contribute to 48 per cent of the total emission due to paddy burning across India.
- Agricultural crop residue burning contribute towards the emission of greenhouse gases (CO₂, N₂O, CH₄), air pollutants (CO, NH₃, NO_x, SO₂, NMHC, volatile organic compounds), particulates matter and smoke thereby posing threat to human health.

- Consider the following pairs:

Sea.		Bordering country
1. Adriatic Sea	::	Albania
2. Black Sea	::	Croatia
3. Caspian Sea	::	Kazakhstan
4. Mediterranean Sea	::	Morocco
5. Red Sea	::	Syria

Adriatic Sea

- The Adriatic Sea is a part of the Mediterranean Sea positioned between the eastern coastline of Italy, and countries of the Balkan Peninsula, from Slovenia, South through Croatia, Montenegro, and to Albania.
- The Black Sea is an inland sea located between far-south eastern Europe and the far-western edges of the continent of Asia and the country of Turkey. It's bordered by Turkey, and by Bulgaria, Romania, Ukraine, Russia and Georgia.
- Caspian Sea is an enclosed body of water between Asia and Europe. It is bordered by Iran, Turkmenistan, Kazakhstan, Azerbaijan, Russia,

Black Sea

- The Black Sea is an inland sea located between far-south eastern Europe and the far-western edges of the continent of Asia and the country of Turkey. It's bordered by Turkey, and by Bulgaria, Romania, Ukraine, Russia and Georgia.

Caspian Sea

- Caspian Sea is an enclosed body of water between Asia and Europe. It is bordered by Iran, Turkmenistan, Kazakhstan, Azerbaijan, Russia,

Mediterranean Sea

- Morocco's Mediterranean coast represents the westernmost edge of the Northern African coast. The coastline features the Strait of Gibraltar that marks the link between the Mediterranean Sea and the Atlantic Ocean.
- There are six countries (Saudi Arabia, Yemen, Egypt, Sudan, Eritrea, and Djibouti) bordering the Red Sea.

Red Sea

- There are six countries (Saudi Arabia, Yemen, Egypt, Sudan, Eritrea, and Djibouti) bordering the Red Sea.

A37/2019

- Among the following, which one is the largest exporter of rice in the world in the last five years?
 - A) China
 - B) India
 - C) Myanmar
 - D) Vietnam

Largest Exporters

- India has been the world's top rice exporter since the beginning of this decade. India emerged the world's largest rice exporter in 2011-12, displacing Thailand from its leadership position.

- Consider the following pairs:

GLACIER

RIVER

- 1. Bandarpunch. :: Yamuna
- 2. Bara Shigri. :: Chenab
- 3. Milam. :: Mandakini
- 4. Siachen. :: Nubra
- 5. Zemu :: Manas

Which of the pairs given above are correctly matched?

- A) 1,2 and 4
- C) 2 and 5

- B) 1, 3 and 4
- D) 3 and 5

Bandarpunch.

- An important glacier of Yamuna river basin is Bandarpunch Glacier in the Garhwal division of the Himalayas.
- It is 12 km long situated on the Northern slopes of Bandarpunch West, Khatling peak and Bandarpunch peak the glacier is formed by three cirque glaciers and then join the river of Yamuna.

Bara Shigri.

- Bara Shigri is the largest glacier located in Lahaul Spiti region in Chandra Valley, Himachal Pradesh.
- It is a 30-km long glacier, the second longest glacier in the Himalayas after Gangotri.
- It flows northwards and feeds the Chenab river.

Milam.

- Milam Glacier in Munsiyari, Pithoragarh district, Uttarakhand is the source of Gori Ganga River and not of Mandakini River. Gori Ganga is also an important tributary of Kali River.

Siachen.

- At an altitude of roughly 5,400 meters (17,700 feet), the Siachen Glacier in Kashmir is a forbidding place. At much lower altitudes, the glacier's impact is benign: it is the source of the Nubra River, a tributary of the Indus River flowing into Pakistan and the Arabian Sea.

Zemu

- The Zemu glacier is the largest in the Eastern Himalayas in Sikkim. It is at the base of the Kanchendzonga and is one of the sources for the Teesta not Manas river. Teesta is a tributary of the Brahmaputra.

A39/2015

- In India, the use of carbofuran, methyl parathion, phorate and triazophos is viewed with apprehension

• These chemicals are used as

- A) pesticides in agriculture
- B) preservatives in processed food
- C) Fruit ripening agents
- D) moisturising agents in cosmetics

Fruit Ripening Agents

- Ripening agents speed up the process of ripening of fruits after they are picked prior to full ripening. These agents are particularly Unsaturated hydrocarbons; acetylene, ethylene, etc. However, a chemical known as Calcium Carbide (CaC_2) is most commonly used for artificial ripening of fruits.
- Ethylene gas, acetylene gas liberated from calcium carbide, and ethephon are some of the commercial ripening agents used successfully in the trade and they have been widely studied for their effectiveness on initiating and accelerating the ripening process and their effect on fruit quality and health related issues.

Ripening of Fruits

- Ethylene has been found not harmful or toxic to humans in the concentrations found in ripening rooms (100-150 ppm). In fact, ethylene was used medically as an anesthetic in concentrations significantly greater than that found in a ripening room.
- This sometimes will make breathing in a ripening room difficult.

Pesticides in Agriculture

- **Pesticides** are chemicals designed to kill or control insects, weeds, fungi, rodents and microbes.
- As **pesticides** are used in many different sectors (e.g. agriculture, forestry, food industry, etc.) they may put workers in different occupations at risk of acute poisoning or occupational diseases.
- **Pesticides can be grouped according to the types of pests which they kill:**
- Insecticides - insects. Herbicides - plants.
- **Rodenticides - rodents** **Bactericides - bacteria.**
- **Fungicides - fungi.** Larvicides - larvae.

Moisturising agents in cosmetics

- Ex. lanolin, paraffin, ceramides, and silicones.
- A **moisturizer** works to replenish the water content of the **skin** either by trapping moisture in the topmost layer of the **skin** or replenishing its water content to some degree.
- Most **moisturizers** are water-based lotions, creams, gels and serums. They contain ingredients that draw water into the **skin** (humectants) – such as glycerin, lactic acid or urea – and others that smooth the **skin** (emollients) – such as lanolin, sunflower oil and jojoba oil.

A40/2019

- Consider the following statements:
 1. Under Ramsar Convention, it is mandatory on the part of the Government of India to protect and conserve all the wetlands in the territory of India
 2. The Wetlands (Conservation and Management) Rules, 2010 were framed by the Government of India based on the recommendations of Ramasar Convention
 3. The Wetlands (Conservation and Management) Rules, 2010 also encompass the drainage area or catchment regions of the wetlands as determined by the authority.
- 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

The Wetlands (Conservation and Management) Rules, 2010

- Under Ramsar Convention it is mandatory on the part of government of India to protect only Ramsar Sites and not all the wetlands in India
- Under the Wetlands (Conservation and Management Rules), 2010, "Wetland" means an area or of marsh, fen, peatland or water; natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water, the depth of which at low tide does not exceed six metres and includes all inland waters such as lakes, reservoir, tanks, backwaters, lagoon, creeks, estuaries and man made wetland and the zone of direct influence on wetlands that is to say the drainage area or catchment region of the wetlands as determined by the authority but does not include main river channels, paddy fields and the coastal wetland.

A41/2019

- Consider the following statements:
 1. Agricultural soils release nitrogen oxides into environment
 2. Cattle release ammonia into environment
 3. Poultry industry releases reactive nitrogen compounds into environment.

Which of the statements given above is/are correct?

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

Nitrogen Cycle

- Agricultural soils contributed to over 70% of N₂O emissions from India in 2010, followed by waste water (12%) and residential and commercial activities (6%).
- Cattle account for 80% of the ammonia production and India is globally the biggest source of ammonia emission, nearly double that of NO_x emissions.
- The poultry industry, with an annual growth rate of 6%, recorded an excretion of reactive nitrogen compounds of 0.415 tonnes in 2016.

A42/2019

- What is common to the places known as Aliyar, Isapur and Kangsabati?
 - A) Recently discovered uranium deposits
 - B) Tropical rain forests
 - C) Underground cave systems
 - D) Water reservoirs

Water Reservoir

- Aliyar (Tamil Nadu) Isapur (Maharashtra) and Kangsabati (West Bengal) are water reservoirs, where water level reached much below the normal capacity.

A43/2019

- In the context of proposals to the use of hydrogen-enriched CNG (H-CNG) as fuel for buses in public transport, consider the following statements:

1. The main advantage of the use of H-CNG is the elimination of carbon monoxide emissions
2. H-CNG as fuel reduces carbon dioxide and hydrocarbon emissions
3. Hydrogen up to one-fifth by volume can be blended with CNG as fuel for buses
4. H-CNG makes the fuel less expensive than CNG

Which of the statements given above is/are correct?

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

H-CNG

- Hydrogen-Enriched CNG (H-CNG) is a blend of hydrogen and CNG, the ideal hydrogen concentration being 18%. Hence, Statement 3 is correct.
- Compared to conventional CNG, use of H-CNG can reduce emission of carbon monoxide up to 70%, not complete emission. Hence, statement 1 is not correct. It also reduces carbondioxide and hydrocarbon emissions. Hence, statement 2 is correct.
- H-CNG also enables up to 5% savings in fuel efficiency. H- CNG also reduces the engines unburned hydrocarbon emissions and speed up the process of combustion.

- Why are dewdrops not formed on a cloudy night?
 - A) Clouds absorb the radiation related from the Earth's surface
 - B) Clouds reflect back the Earth's radiation
 - C) The Earth's surface would have low temperature on cloudy nights
 - D) Clouds deflect the blowing wind to ground level

Dew Drops

- Dew forms as temperatures drop and objects cool down. If the object becomes cool enough, the air around the object will also cool. Colder air is less able to hold water vapor than warm air. This forces water vapor in the air around cooling objects to condense.
- Dew is liquid water droplets that form on grass, spider webs, and other things in the early morning or late evening. Dew only forms under certain conditions. If a warm, clear day is followed by a cool, clear evening, dew will likely form. On a normal warm day, water evaporates from the warm ground into the air.
- Dew at night forms when the temperature becomes equal to the dewpoint. Warm and moist soils will help with the formation of dew as the soil cools overnight. The cooling of warm and moist soil during the night will cause condensation especially on clear nights.

Is Dew beneficial?

- Dew reduces **water stress** for plants by three main processes.
- **Water** deposited on grass and leaves reduces transpiration (the release of **water** into the atmosphere through pores in the plant's leaves).
- Dew **forms** a protective barrier on the leaf; transpiration will not occur until the dew evaporates.

- Consider the following statements:

1. The 44th Amendment to the Constitution of India introduced an Article placing the election of the Prime Minister beyond judicial review.

2. The Supreme Court of India struck down the 99th Amendment to the Constitution of India as being violative of the independence of judiciary.

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

Supreme Court Struck Down Amendments

- In 1975, Parliament passed the Thirty-ninth amendment to the Constitution which removed the authority of the Supreme Court to adjudicate petitions regarding elections of the President, Vice President, Prime Minister and Speaker of the Lok Sabha. Instead, a body constituted by Parliament would be vested with the power to resolve such election disputes.
- Supreme court struck down 99th amendment as it impinges upon the principles of “independence of the judiciary”, as well as, “separation of powers”

- Consider the following statements:
 1. The motion to impeach a judge of the Supreme Court of India cannot be rejected by the Speaker of Lok Sabha as per the Judges (Inquiry) Act, 1968
 2. The Constitution of India defines and gives details of what constitute 'incapacity and proved misbehaviour' of the Judges of the Supreme Court of India
 3. The details of the process of impeachment of the Judges of the Supreme Court of India are given in the Judges (Inquiry) Act, 1968.
 4. If the motion for the impeachment of a judge is taken up for voting, the law requires the motion to be backed by each House of the Parliament and supported by a majority of total membership of that House and by not less than two-thirds of the total members of that House present and voting.
- Which of the statements given above is/are correct?
 - A) 1 and 2
 - B) 3 only
 - C) 3 and 4 only
 - D) 1,3 and 4

Removal of a Judge

- The Judges Enquiry Act (1968) regulates the procedure relating to the removal of a judge of the Supreme Court by the process of impeachment.
- A removal motion signed by 100 members (in the case of Lok Sabha) or 50 members (in the case of Rajya Sabha) is to be given to the Speaker/Chairman.
- The Speaker/Chairman may admit the motion or refuse to admit it. Hence statement 1 is not correct.
- If it is admitted, then the Speaker/Chairman is to constitute a three-member committee to investigate into the charges.

Removal of Judge

- The committee should consist of (a) the chief justice or a judge of the Supreme Court, (b) a chief justice of a high court, and (c) a distinguished jurist.
- If the committee finds the judge to be guilty of misbehaviour or suffering from an incapacity, the House can take up the consideration of the motion.
- After the motion is passed by each House of Parliament by special majority, an address is presented to the president for removal of the judge. Hence, Statement 4 is correct. Statement 1 is incorrect and 4 is correct by elimination we can see that only option C is correct.
- Finally, the president passes an order removing the judge.

The Constitution of India defines and gives details or what constitutes 'incapacity and proved misbehaviour' of the Judges of the Supreme Court of India.

- The constitution nowhere defines the term "incapacity and proved misbehaviour".

A47/2019

- The Ninth Schedule was introduced in the Constitution of India during the prime ministership of
 - A) Jawaharlal Nehru
 - B) Lal Bahadur Shastri
 - C) Indira Gandhi
 - D) Morarji Desai

9th Schedule

- In the aftermath of Kameshwar Singh V State of Bihar judgment, the Government got apprehensive that the land reform programmes would be endangered.
- To ensure that land reform legislation did not run into obstacles,
- The legislature amended the Constitution in the year 1951 under the Prime ministership of Jawahar Lal Nehru which inserted 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.

How many acts are there in 9th Schedule

- Since 1951, the Ninth Schedule has been expanded constantly so much that today **284** Acts are included therein. By the First Constitution (Amendment) Act, 1951 13 laws were added to the Ninth Schedule.

A48/2019

- Consider the following statements:
 1. Coal sector was nationalised by the Government of India under Indra Gandhi
 2. Now coal blocks are allocated on lottery basis
 3. Till recently, India imported coal to meet the shortages of domestic supply, but now India is self-sufficient in coal production.

Which of the statements given above is/are correct?

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

Coal Sector Nationalization

- Coal sector was nationalised in two phases under Indira Gandhi Government in 1972.
- India has 5th largest coal reserves but not able to produce to meet with the requirement
- The coal Blocks are allocated through Auctions not on lottery basis.

A49/2019

- Consider the following statements:
 1. The Parliament (Prevention of Disqualification) Act, 1959 exempts several posts from disqualification on the grounds of 'Office of Profit'
 2. The above-mentioned Act was amended five times
 3. The term 'Office of Profit' is well defined in the Constitution of India.

Which of the statements given above is/are correct?

A) 1 and 2 only. B) 3 only

C) 2 and 3 only D) 1, 2 and 3

Office of Profit

- The Parliament (Prevention of Disqualification) Act, 1959 exempts several posts from disqualification. Like-
- (i) Ministers of State and Deputy Ministers,
- (ii) Parliamentary Secretaries and Parliamentary Under Secretaries,
- (iii) Deputy Chief Whips in Parliament,
- (iv) Vice-Chancellors of Universities,
- (v) Officers in the National Cadet Corps, and the Territorial Army, and
- The Act has been amended 5 times 1960; 1992; 1993; 2006; & 2013

Office of Profit

- Constitution does not clearly defines Office Of Profit.
- It has been a evolving concept. New dimensions and interpretations are being added through various judgements and debates

A50/2019

- Under which Schedule of the Constitution of India can the transfer of tribal land to private parties for mining be declared null and void?
 - A) Third Schedule
 - B) Fifth Schedule
 - C) Ninth Schedule
 - D) Twelfth Schedule

5th Schedule

- Grant of mineral concessions in Scheduled Areas is guided by the provisions contained in article 244 along with Fifth and Sixth Schedules to the Constitution relating to administration of the Scheduled Areas and Tribal Areas and the provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or any other relevant statutory acts protecting the interests of tribals.
- Under the fifth Schedule, the Governor may by public notification direct that any particular Act of Parliament or of the Legislature of the State shall not apply to a Scheduled Area or any part thereof in the State or shall apply to a Scheduled Area.

A51/2019

- Consider the following statements about Particularly Vulnerable Tribal Groups (PVTGs) in India:
 1. PVTGs reside in 18 States and one Union Territory
 2. A stagnant or declining population is one of the criteria for determining PVTG status
 3. There are 95 PVTGs officially notified in the country so far
 4. Irular and Konda Reddi tribes are included in the list of PVTGs.

Which of the statements given above are correct?

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

Particularly Vulnerable Tribal Groups (PVTGs) in India

- 75 tribal groups have been categorized categorized by Ministry of Home Affairs as Particularly Vulnerable Tribal Groups (PVTGs)s.
- PVTGs reside in 18 States and UT of A&N Islands.
- The Ministry of Tribal Affairs implements the Scheme of “Development of Particularly Vulnerable Tribal Groups (PVTGs)” exclusively for them .
- Under the scheme, Conservation-cum-Development (CCD)/Annual Plans are to be prepared by each State/UT for their PVTGs based on their need assessment, which are then appraised and approved by the Project Appraisal Committee of the Ministry

Particularly Vulnerable Tribal Groups (PVTGs) in India

- Activities for development of PVTGs are undertaken in Sectors of Education, Health, Livelihood and Skill Development , Agricultural Development , Housing & Habitat, Conservation of Culture etc.
- in 1975, the Government of India initiated to identify the most vulnerable tribal groups as a separate category called PVTGs and declared 52 such groups, while in 1993 an additional 23 groups were added to the category, making it a total of 75 PVTGs out of 705 Scheduled Tribes.

- With reference to the Constitution of India, prohibitions or limitations or provisions contained in ordinary laws cannot act as prohibitions or limitations on the constitutional powers under Article 142. It could mean which one of the following?
 - A) The decisions taken by the Election Commission of India while discharging its duties cannot be challenged in any court of law.
 - B) The Supreme Court of India is not constrained in the exercise of its powers by laws made by the Parliament.
 - C) In the event of grave financial crisis in the country, the President of India can declare Financial Emergency without the counsel from the Cabinet
 - D) State Legislatures can not make laws on certain matters without the concurrence of Union Legislature.

Article 142

- Article 142- Enforcement of decrees and orders of Supreme Court and unless as to discovery, etc (1) The Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it, and any decree so passed or orders so made shall be enforceable throughout the territory of India in such manner as may be prescribed by or under any law made by Parliament and, until provision in that behalf is so made, in such manner as the President may by order prescribe.

A53/2019

- With reference to the Legislative Assembly of a State in India, consider the following statements:

1. The Governor makes a customary address to Members of the House at the commencement of the first session of the year.
2. When a State Legislature does not have a rule on a particular matter, it follows the Lok Sabha rule on that matter.

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 |

Legislative Assembly

- Article 176(1) of the Constitution of India enjoins that the Governor shall Address both the Houses assembled together at the commencement of the first Session after each general election to the Assembly and at the commencement of the first session of each year and inform the Legislature of the causes of its Summons.
- In case of absence of rules in particular matter, the **speaker of state legislative assembly/council** decides rules.

Rules of Procedure in Legislative Assembly

- A House of the Legislature of a State may make rules for regulating subject to the provisions of this Constitution, its procedure and the conduct of its business
- Until rules are made under clause (1), the rules of procedure and standing orders in force immediately before the commencement of this Constitution with respect to the Legislature for the corresponding Province shall have effect in relation to the Legislature of the State subject to such modifications and adaptations as may be made therein by the Speaker of the Legislative Assembly, or the Chairman of the Legislative Council, as the case may be
- In a State having a Legislative Council the Governor, after consultation with the Speaker of the Legislative Assembly and the Chairman of the Legislative Council, may make rules as to the procedure with respect to communications between the two Houses.

- Consider the following statements:
 1. The United Nations Convention against Corruption (UNCAC) has a 'Protocol against the Smuggling of Migrants by Land, Sea and Air'.
 2. The UNCAC is the ever-first legally binding global anti-corruption instrument.
 3. A highlight of the United Nations Convention against Transnational Organized Crime (UNTOC) is the inclusion of a specific chapter aimed at returning assets to their rightful owners from whom they had been taken illicitly
 4. The United Nations Office on Drugs and Crime (UNODC) is mandated by its member states to assist in implementation of both UNCAC and UNTOC.Which of the statements given above are correct?
 - A) 1 and 3 only
 - B) 2, 3 and 4 only
 - C) 2 and 4 only
 - D) 1,2,3 and 4

The United Nations Convention against Corruption (UNCAC)

- The protocol against the smuggling of Migrants by land, sea and air, it comes under the the United Nations Convention against Transnational Organized Crime (UNTOC). The main objective of this convention is to fight against Transnational organized crime.
- The United Nations Convention Against Corruption (UNCAC) is the only legally binding universal anti-corruption instrument. The Convention covers many different forms of corruption, such as bribery, trading in influence, abuse of functions, and various acts of corruption in the private sector.

United Nations

- "Returning Assets to their rightful owners from whom they they have been taken illicitly", is included under the United Nations Convention Against Corruption (UNCAC).
- The United Nations Office on Drugs and Crime (UNODC) is mandated by its Member States to assist in the implementation of both Conventions, such as UNCAC and UNTOC, along with the UN Drug Conventions of 1961, 1971 and 1988 underpin all the operational work of UNODC.

A55/2019

- Consider the following statements:
 1. As per recent amendment to the Indian Forest Act, 1927, forest dwellers have the right to fell the bamboo grown on forest areas.
 2. As per the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, bamboo is a minor forest produce.
 3. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 allows ownership of minor forest produce to forest dwellers.

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

Minor Forest Produce

- The Indian Forest (Amendment) Bill 2018 permits felling and transit of bamboo grown in non-forest areas. However, bamboo grown on forest lands would continue to be classified as a tree and would be guided by the existing legal restrictions.
- The Forest Rights Act (FRA) of 2006 recognises bamboo as an Minor Forest Produce and vests the “right of ownership, access to collect, use and dispose of minor forest produce” with Scheduled Tribes and traditional forest dwellers.

Minor Forest Produce

- In 2006, the Forest Rights Act (FRA) for the first time defined minor forest produce as including bamboo and tendu and many other things.
- It also gave tribals and other traditional forest dwellers the “right of ownership, access to collect, use and dispose of minor forest produce, which has been traditionally collected within or outside village boundaries.”

A56/2019

- Which Article of the Constitution of India safeguards one's right to marry the person of one's choice?
 - A) Article 19
 - B) Article 21
 - C) Article 25
 - D) Article 29

Fundamental Rights

- The right to marry is a component of right to life under art 21 of constitution of India which says, “No person shall be deprived of his life and personal liberty except according to procedure established by law”.
- In **Lata singh vs state of Uttar Pradesh 2006**, the Supreme Court viewed the right to marry as a component of **right to life under Art 21** of Indian Constitution the court observed that:
- “This is a free and democratic country, and once a person becomes a major he or she can marry whosoever he/she likes. If the parents of the boy or girl do not approve of such inter-caste marriage the maximum they can do is that they can cut off social relations with the son or daughter, but they cannot give threats or commit or instigate acts of violence and cannot harass the person who undergoes such inter caste marriage”.

A57/2019

- Consider the following statements:

1. According to the Indian Patents Act, a biological process to create a seed can be patented in India.
2. In India, there is no Intellectual Property Appellate Board.
3. Plant varieties are not eligible to be patented in India

Which of the statements given above is/are correct?

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

Intellectual Property Appellate Board.

- Article 3(J) of Indian Patent Act, excludes from patentability “plants and animals in whole or in any part thereof other than microorganisms, including seeds, varieties, and species, and essentially biological processes for production or propagation of plants and animals”.
- The Intellectual Property Appellate Board (IPAB) was constituted on 2003 by the Government of India to hear and resolve the appeals against the decisions of the registrar under the Indian Trademarks Act, 1999 and the Geographical Indications of Goods (Registration and Protection) Act, 1999.

Indian Patent Act

- Plant varieties are not eligible to be patented in India.
- Plant variety protection provides legal protection of a plant variety to a breeder in the form of Plant Breeder's Rights (PBRs).
- In India, the Plant Variety Protection And Farmers Rights (PPVFR) Act, 2001 is a sui generis system that aims to provide for the establishment of an effective system for the protection of plant varieties and the rights of plant breeders and farmers.

A58/2019

- Consider the following statements:
The Environment Protection Act, 1986 empowers the Government of India to
 1. State the requirement of public participation in the process of environmental protection, and the procedure and manner in which it is sought
 2. Lay down the standards for emission or discharge of environmental pollutants from various sources

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 Environment Protection Act

- The Environment Protection Act 1986, empowers the government of India to lay down standards for emission or discharge of environmental pollutants from various sources whatsoever, provided that different standards for emission or discharge may be laid down under this clause from different sources having regard to the quality or composition of the emission or discharge of environmental pollutants from such sources.

A59/2019

- As per the Solid Waste Management Rules, 2016 in India, which one of the following statements is correct?
 - A) Waste generator has to segregate waste into five categories
 - B) The Rules are applicable to notified urban local bodies, notified towns and all industrial townships only
 - C) The Rules provide for exact and elaborate criteria for the identification of sites for landfills and waste processing facilities.
 - D) It is mandatory on the part of waste generator that the waste generated in one district cannot be moved to another district.

Solid Waste Management Rules

- Waste is to be segregated into three streams- Biodegradables, Dry (Plastic, Paper, metal, Wood, etc.) and Domestic Hazardous waste (diapers, napkins, mosquito repellents, cleaning agents etc.) before handing it over to the collector.
- Under the Solid Waste Management, Rules 2016, **waste processing facilities** will have to be set up by all local bodies having 1 million or more population within two years. In case of census towns below 1 million population, setting up common, or stand-alone sanitary landfills by, or for all local bodies having 0.5 million or more population and for setting up common, or regional sanitary landfills by all local bodies and census towns under 0.5 million population will have to be completed in three years. Hence, rules provide for exact and elaborate criteria for identification of landfill sites and waste processing facilities.

A60/2019

- Consider the following statements:
As per the Industrial Employment (standing Orders) Central (amendment) Rules, 2018
 1. If rules for fixed-term employment are implemented, it becomes easier for the firms/companies to lay off workers
 2. No notice of termination of employment shall be necessary in the case of temporary workman

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

Industrial Employment (standing Orders) Central (amendment) Rules, 2018

- A “fixed term employment workman is a workman who has been engaged on the basis of a written contract of employment for a fixed period”.
- The existing permanent workmen as on March 16, 2018 cannot be converted as fixed term employment thereafter.
- No temporary workman whether monthly-rated, weekly-rated or piece-rated and no probationer shall be entitled to any notice or pay in lieu thereof if his services are terminated ,but the services of a temporary workman shall not be terminated as a punishment unless he has been given an opportunity of explaining the charges of misconduct alleged against him in the manner prescribed in Paragraph 14.

A61/2019

- The Service Area Approach was implemented under the purview of
 - A) Integrated Rural Development Programme
 - B) Lead Bank Scheme
 - C) Mahatma Gandhi National Rural Employment Guarantee Scheme
 - D) National Skill Development Mission

The Service Area Approach

- **Service area approach (SAA)** is a developed version of the 'area approach' structure of the Lead Bank Scheme. Under SAA plan each commercial bank / RRB branch in a rural and semi-urban area is designated to serve 15 to 25 villages for the planned and orderly development of the areas.
- The **Service Area Approach (SAA)** was a scheme launched by the RBI in 1989 for an orderly development of the rural areas with the of the country.
- The **Lead Bank Scheme** was introduced in 1969 to provide lead roles to individual banks (both in public sector and private sector) for the districts allotted to them. The **Lead Bank Scheme** was introduced by RBI on the basis of the recommendations of both the Gadgil Study Group and Banker's Committee (Nariman Committee)

A62/2019

- . With reference to the management of minor minerals in India, consider the following statements:
 1. Sand is a 'minor mineral' according to the prevailing law in the country
 2. State Governments have the power to grant mining leases of minor minerals, but the powers regarding the formation of rules related to the grant of minor minerals lie with the Central Government.
 3. State Governments have the power to frame rules to prevent illegal mining of minor minerals.

Which of the statements given above is/are correct?

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

Minor Minerals

- According to section 3(e) of the Mines and Minerals (Development and Regulation) Act, 1957 “**Minor Minerals**” means building stones, gravel, ordinary clay, ordinary sand other than sand used for prescribed purposes, and any other mineral which the Central Government may, by notification in the Official Gazette, declare .
- The regulation of grant of **mineral concessions for minor minerals** is, therefore, within the legislative and administrative domain of the state governments.
- **Major minerals** are those specified in the first schedule Ex. Lignite, coal, Uranium, iron ore etc.
- Whatever is not declared as a “**minor mineral**” may be treated as the **major mineral**. Minor Ex. Limestone, Decorative stones

- Consider the following statements:
 1. Most of India's external debt is owed by governmental entities
 2. All of India's external debt is denominated in US dollars

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

India's External Debt

- The external debt of India is the total debt the country owes to foreign creditors. The debtors can be the Union and State Governments, corporations or citizens of India.
- The debt includes money owed to private commercial banks, foreign governments, or international Financial Institutions such as the (IMF) and World Bank.
- On 31 December 2019 India's external debt was. US\$ 563 billion
- Statistics for the first two quarters of the calendar year are compiled and published by the RBI Data for the last two quarters is compiled and published by the Ministry of Finance.

A64/2019

- Which of the following is NOT included in assets of a commercial bank in India?
 - A) Advances
 - B) Deposits
 - C) Investments
 - D) Money at call and short notice

Assets of a Bank

- Deposits is liability and not assets. It is to be return back on demand of depositor

A65/2019

- In the context of India, which of the following factors is/are contributor/ contributors to reducing the risk of a currency crisis?
 1. The foreign currency earnings of India's IT sector
 2. Increasing the government expenditure
 3. Remittances from Indians abroad

Select the correct answer using the code given below.

A) 1 only
C) 2 only

B) 1 and 3 only
D) 1,2 and 3

Currency Crises

- **Foreign remittance** is a transfer of money from a **foreign** worker to their family or other individuals in their home countries. In many countries, **remittance** constitutes a significant portion of a nation's economic growth as measured by gross domestic product (GDP).
- **India** retained its position as the world's top recipient of remittances with its diaspora sending a whopping USD 79 billion back home in 2018, the World Bank said in a report Monday.
- As per the Ministry of Overseas Indian Affairs (MOIA), remittance is received from the approximately 35 million members of the Indian diaspora.

A66/2019

- Which one of the following suggested that the Governor should be an eminent person from outside the state and should be a detached figure without intense political links or should not have taken part in politics in the recent past?
 - A) First Administrative Reforms Commission (1966)
 - B) Rajamannar Committee 1969
 - C) Sarkaria Commission
 - D) National Commission to Review the Working of the Constitution 2000

Governor

- Sarkaria Commission was set up in June 1983 (PM was Indra Gandhi) to examine the relationship and balance of power between state and central governments and suggest changes within the framework of the Constitution.
- The committee became known as the Sarkaria Commission, since it was headed by RS Sarkaria.
- Recommendations on Appointment of Governor :
 - (i) should be an eminent person;
 - (ii) must be a person from outside the State;
 - (iii) must not have participated in active politics at least for some time before his appointment;
 - (iv) he should be a detached person and not too intimately connected with the local politics of the State;

Governor

(v) he should be appointed in consultation with the Chief Minister of the State, Vice-President of India and the Speaker of the Lok Sabha;

(vi) His tenure of office must be guaranteed

(vii) After demitting his office, the person appointed as Governor should not be eligible for any other appointment or office of profit under the Union or a State Government except for a second term as Governor or election as Vice-President or President of India, as the case may be; and

(viii) At the end of his tenure, reasonable post-retirement benefits should be provided.

A67/2019

- Which of the following is issued by registered foreign portfolio investors to overseas investors who want to be part of the Indian stock market without registering themselves directly?
 - A) Certificate of Deposit
 - B) Commercial Paper
 - C) Promissory Note
 - D) Participatory Note

Participatory Note

- **Participatory notes** also referred to as **P-Notes**, or **PNs**, are financial instruments required by investors or hedge funds to invest in Indian securities without having to register with the Securities and Exchange Board of India (SEBI).
- **Participatory notes** are financial instruments used by investors or hedge funds that are not registered with SEBI to invest in Indian securities. The brokerages buy India-based securities and then issue **participatory notes** to foreign investors.
- These **notes** are a unique Indian invention started in 2000 by SEBI to enable foreign corporates and high net worth investors enter the Indian market without having to go through the process of registering as Foreign Institutional Investor (FII).

- Consider the following statements:
 1. As per law, the Compensatory Afforestation Fund Management and Planning Authority exists at both National and State levels.
 2. People's participation is mandatory in the compensatory afforestation programmes carried out under the Compensatory Afforestation Fund Act, 2016.

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 Compensatory Afforestation Fund Management and Planning Authority

- CAMPA Act or Compensatory Afforestation Fund Act is an Indian legislation that seeks to provide an appropriate institutional mechanism, both at the Centre and in each State and Union Territory, to ensure expeditious utilization in efficient and transparent manner of amounts released in lieu of forest land diverted for non-forest purpose which would mitigate impact of diversion of such forest land.
- This is money paid by developers who have razed forest land for their construction projects, and the idea is that such land destroyed needs to be made good by regenerating forest elsewhere on non-forest land

- In India, which of the following review the independent regulators in sectors like telecommunications, insurance, electricity, etc?
 1. Ad Hoc Committees set up by the Parliament
 2. Parliamentary Department Related Standing Committees
 3. Finance Commission
 4. Financial Sector Legislative Reforms Commission
 5. NITI Aayog

Select the correct answer using the code given below.

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

Departmental Parliamentary Committee

- There are 24 department-related standing committees (DRSCs). Each of these committees have 31 members - 21 from Lok Sabha and 10 from Rajya Sabha. These members are to be nominated by the Speaker of Lok Sabha or the Chairman of Rajya Sabha respectively. The term of office of these committees does not exceed one year.
- A committee can be called a Parliamentary committee if it is appointed or elected by the house or nominated by the Speaker or the Chairman; it has a secretariat provided by the Lok Sabha/Rajya Sabha secretariat.

- With reference to India's Five-Year Plans, which of the following statements is/are correct?
 1. From the Second Five-Year Plan, there was a determined thrust towards substitution of basic and capital good industries
 2. The Fourth Five-Year Plan adopted the objective of correcting the earlier trend of increased concentration of wealth and economic power.
 3. In the Fifth Five-Year plan, for the first time, the financial sector was included as an integral part of the plan.

Select the correct answer using the code given below

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

Five Years Plans

- The first five-year plan in India was launched in 1951. India had launched 12th five-year plans in 2012-17
- The present NDA government has stopped the formation of five-year plans. So the 12th five-year plan would be called the last five-year plan of India. The decades-old **Five-Year Plans** will make way for a **three-year action plan**, which will be part of a seven-year strategy paper and a 15-year vision document. The Niti Aayog which has replaced the Planning Commission, is launching a **three-year action plan** from **April 1, 2017**.

Five Year Plans

- The stated objective of the Second five year plan was rapid industrialisation with particular emphasis on the development of basic and heavy industries - aimed at establishing the Socialistic Pattern of Society.
- Fourth five year plan emphasised on reduction of concentration of incomes, wealth and economic power to achieve social equality and justice.
- Fifth five year plan aims at removal of poverty and achievement of self-reliance. The Eighth Plan focussed on Financial sector reforms.

A71/2019

- With reference to Asian Infrastructure Investment Bank (AIIB) , consider the following statements:
 1. AIIB has more than 80 member nations
 2. India is the largest shareholder in AIIB
 3. AIIB does not have any members from out side Asia

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

Asian Infrastructure Investment Bank (AIIB)

- The Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank with a mission to improve social and economic outcomes in Asia. Headquartered in Beijing, began operations in January 2016 and have now grown to 103 approved members worldwide.
- AIIB has more than 80 member nations. India is the largest shareholder in AIIB. AIIB does not have any members from outside Asia.
- Australia, NZ, Qatar, Canada, Cyprus etc are non regional members.

Goals of AIIB

- To foster sustainable economic development, create wealth and improve infrastructure connectivity in Asia
- To promote regional cooperation and partnership in addressing development challenges
- To promote investment in the public and private capital for development purposes.
- To utilize the resources at its disposal for financing such development in the region, including those projects and programs which will contribute most effectively to the harmonious economic growth of the region;
- To encourage private investment in projects, enterprises and activities

- What was the purpose of Inter-Creditor Agreement signed by the Indian banks and financial institutions recently?
 - A) To lessen the Government of India's perennial burden of fiscal deficit and current account deficit
 - B) To support the infrastructure projects of Central and the State Governments
 - C) To act as independent regulator in case of applications for loans of Rs. 50 crore or more
 - D) To aim at faster resolution of stressed assets of Rs. 50 crore or more which are under consortium lending

Inter-Creditor Agreement

- The inter-creditor agreement is aimed at the resolution of loan accounts with a size of ₹50 crore and above that are under the control of a group of lenders.
- It is part of the “Sashakt” plan approved by the government to address the problem of resolving bad loans.
- The Inter creditor Agreement, a recommendation of the Sunil Mehta committee, aims to deal with bad loans as an attempt to speed up the Resolution of stressed Assets.

- The Chairmen of public sector banks are selected by the
 - A) Banks Board Bureau
 - B) Reserve Bank of India
 - C) Union Ministry of Finance
 - D) Management of concerned bank

Banks Board Bureau

- Bank Board Bureau is responsible for selection and appointment of Board of Directors in Public Sector Banks and Financial Institutions.

- Consider the following statements:
 1. Petroleum and natural Gas Regulatory Board (PNGRB) is the first regulatory body set up by the Government of India
 2. One of the tasks of PNGRB is to ensure competitive markets for gas
 3. Appeals against the decisions of PNGRB go before the Appellate Tribunals for Electricity.
- Which of the statements given above are correct?
 - A) 1 and 2 only
 - B) 2 and 3 only
 - C) 1 and 3 only
 - D) 1,2 and 3

Petroleum and natural Gas Regulatory Board (PNGRB)

- The Petroleum and Natural Gas Regulatory Board (PNGRB) was constituted under The Petroleum and Natural Gas Regulatory Board Act, 2006.
- It is a statutory body constituted under Parliament Act
- The independent regulator TRAI is the first independent regulator in India.
- Its primary functions include regulation of refining, transportation, distribution, storage, marketing, supply and sale of petroleum products and natural gas.

A75/2019

- With reference to communication technologies, what is/are the difference/differences between LTE (Long -Term Evolution) and VoLTE (Voice over Long-Term Evolution)?
 1. LTE is commonly marketed as 3G and VoLTE is commonly marketed as advanced 3G
 2. LTE is data-only technology and VoLTE is voice-only technology.

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

LTE and VoLTE

- Long Term Evolution (LTE)
- LTE technologies provide data transfer speeds of between 100 megabits per second(100Mbps) and one Gigabit per second(1Gbps).
- LTE has the advantage of Higher bandwidth (data speeds), 4G LTE provides true broadband speeds in comparison to 3G.
- VoLTE: Voice over long-term Evolution is a standard high-speed wireless communication for mobile phones and data terminals including Internet of Things devices and wearables.
- Basically VoLTE systems covert voice into data stream, which is then transmitted using the data connection.

A76/2019

- Which of the following statements is/are correct regarding the Maternity Benefit (Amendment) Act, 2017?

1) Pregnant women are entitled for three months predelivery and three months post delivery paid leave

2) Enterprises with creches must allow the mother minimum six creche visits daily

3) Women with two children get reduced entitlements.

Select the correct answer using the code given below.

A) 1 and 2 only

B) 2 only

C) 3 only

D) 1,2 and 3

Maternity Benefit (Amendment) Act, 2017

- This new bill amends the Maternity Benefit Act of 1961. Under the new provision, women are entitled to visit creches four times a day.
- Maternity benefit of 26 weeks are provided.
- Out of 26 weeks, Up to eight weeks can be claimed before delivery.
- However, one can instead take the entire 26 weeks of leave after the delivery.
- If the woman has more than two surviving children, the maternity benefit is for 12 weeks only.

A77/2019

- Which one of the following is NOT a sub-index of the World Bank's 'Ease of Doing Business Index?
 - A) Maintenance of Law and order
 - B) Paying taxes
 - C) Registering Property
 - D) Dealing with construction permits.

Ease of Doing Business Index

- Sub Index of Ease of Doing Business Index comprises starting a business, Getting a location(labour market regulation, construction permits, getting electricity, registering property), Accessing finance (Getting credit, Protecting Minority investor), Dealing with day to day operation (Paying taxes, enforcing contracts).

- In India , ‘extended producer responsibility’ was introduced as an important feature in which of the following?
 - A) The Bio-medical Waste (management and Handling) Rules, 1998
 - B) The Recycled Plastic (Manufacturing and Usage) Rules, 1999
 - C) The e-waste (Management and Handling) Rules, 2011
 - D) The Food Safety and Standard Regulations, 2011

Extended Producer Liability

- The E-waste Rules place main responsibility of e-waste management on the producers of the electrical and electronic equipment by introducing the concept of “extended producer responsibility” (EPR).
- The producers are given a significant responsibility—financial or physical—for the treatment or disposal of post-consumer products.
- The e-waste (Management & Handling) Rules, 2011 have been notified in May 2011 and are effective from 01-05-2012.

The Recycled Plastic (Manufacturing and Usage) Rules, 1999

- No recycled plastic shall be used in producing bags, sacks or wrapping used in food packaging. Recycled plastic container whatsoever shall be clearly labelled indicating the recycle process. Food shall be packed only in virgin plastic.
- No person shall manufacture, stock, distribute or sell carry bags made of virgin or recycled plastic bags which are less than 8 x 12 inches {20 x 30 cms} in size and which do not conform to the minimum thickness not less than 20 microns

A79/2019

- The economic cost of food grains to the FCI is Minimum Support Price and bonus (if any) paid to farmers plus
 - A) Transportation cost only
 - B) Interest cost only
 - C) Procurement incidentals and distribution cost
 - D) Procurement incidentals and charges for godowns

FCI

- The economic cost of foodgrains consists of three components, namely the MSP including central bonus, if applicable, as the price paid to farmers, procurement incidentals, and the cost of distribution.

A80/2019

- In the context of any country, which one of the following would be considered as part of its social capital?
 - A) The proportion of literates in the population
 - B) The stock of its buildings other infrastructure and machines
 - C) The size of population in the working age group
 - D) the level of mutual trust and harmony in the society

Social Capital

- Social capital refers to connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them.
- It is the networks of relationships among people who live and work in a particular society, enabling that society to function effectively.
- **Social capital** is defined by the Organisation for Economic Co-operation and Development(OECD) as “networks together with. shared norms, values and understandings that facilitate co-operation within or among groups”
- **Societal level** examples of social capital include when someone opens a door for someone, returns a lost item to a stranger, gives someone directions, loans something without a contract, and any other beneficial interaction between people, even if they don't know each other.

A81/2019

- With reference to the Constitution of India, consider the following statements:
 1. No High Court shall have the jurisdiction to declare any central law to be constitutionally invalid.
 2. An amendment to the Constitution of India cannot be called into question by the Supreme Court 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

- The 42nd Amendment Act of 1976 curtailed the judicial review power of high court.
- It debarred the high courts from considering the constitutional validity of any central law.
- However, the 43rd Amendment Act of 1977 restored the original position.
- High Court has the power to invalidate any central law which goes against the ethos of the constitution. Similar is the case with Supreme Court.
- If any constitutional amendment goes against the basic structure of the constitution, Supreme court has the power to call it into question. In 2015, the Supreme Court declared both the 99th Constitutional Amendment, 2014 and the National Judicial Appointments Commission (NJAC) Act, 2014 as unconstitutional and null and void.

A82/2019

- Consider the following statements:
 1. Purchasing Power Parity (PPP) exchange rates are calculated by comparing the prices of the same basket of goods and services in different countries.
 2. In terms of PPP dollars, India is the sixth largest economy in the world.

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

Purchasing Power Parity (PPP)

- PPPs measure the total amount of goods and services that a single unit of a country's currency can buy in another country. The PPP between countries A and B measures the amount of country A's currency required to purchase a basket of goods and services in country A as compared to the amount of country B's currency to purchase a similar basket of goods and services in country B.
- Ranks in PPP: 2019
 1. China : 23,210 GDP (PPP) Billion \$
 2. USA. : 19490 GDP (PPP) Billion \$
 3. India : 9474 GDP (PPP) Billion \$
 4. Japan. : 5443 GDP (PPP) Billion \$

A83/2019

- With reference to the cultivation of kharif crops in India in the last five years, consider the following statements:

1. Area under rice cultivation is the highest.
2. Area under the cultivation of jowar is more than that of oilseeds
3. Area of cotton cultivation is more than that of sugarcane
4. Area under sugarcane cultivation has steadily decreased.

Which of the statements given above are correct?

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

Kharif Crops

- Rice, maize, jowar, bajra, tur, moong, urad, cotton, jute, groundnut, soybean etc.

**All India Kharif Crop Situation - 1st Advance Estimates (2018-19) vis-à-vis
4th Advance Estimates (2017-18)**

(In lakh hectares)

Crop Name	Normal Area for whole Kharif Season	Area sown reported			Absolute Change
		1st Advance Estimates 2018-19	% of Normal for whole season	4th Advance Estimates 2017-18	
Rice	396.39	384.19	97.2	393.52	-9.3
Jowar	22.34	17.77	79.5	18.99	-1.2
Bajra	74.03	65.76	88.8	73.83	-8.1
Maize	74.22	76.88	103.6	76.23	0.7
Total Coarse Cereals	188.55	175.35	93.0	186.29	-10.9
Total Cereals	583.94	559.54	96.8	579.81	-20.3
Tur	41.90	45.41	108.4	44.31	1.1
Urad	27.00	38.61	143.0	44.95	-6.3
Moong	24.93	32.65	131.0	32.86	-0.2
Others	15.83	18.85	119.1	18.71	0.1
Total Pulses	111.93	135.52	121.1	140.83	-5.3
Total Foodgrains	695.87	695.06	99.9	720.64	-25.6
Groundnut	42.01	38.90	92.6	41.02	-2.1
Soyabean	112.51	109.60	97.4	104.71	4.9
Sunflower	2.24	1.43	64.0	1.35	0.1
Sesamum	17.50	14.73	84.2	15.62	-0.9
Nigerseed	2.70	2.08	77.1	2.25	-0.2
Castorseed	10.51	9.18	87.4	8.26	0.9
Total Oilseeds	187.47	175.92	93.83	173.19	2.7
Cotton	119.75	122.38	102.2	124.29	-1.9
Sugarcane	48.84	51.59	105.6	47.32	4.3
Jute & Mesta	8.11	7.43	91.6	7.35	0.1
All- Crops	1060.04	1052.38	99.3	1072.79	-20.4

Note: Area figures are as per eye assessment of State Agriculture Departments.
Normal Area: 5 years average of the area during the period of 2012-13 to 2016-17.

A84/2019

- Among the Agricultural commodities imported by India, which one of the following accounts for the highest imports in terms of value in the last five years?
 - A) Spices
 - B) Fresh fruits
 - C) Pulses
 - D) Vegetable oils

Agricultural commodities imported by India

- The import of vegetable oils in India is highest in last five years due to a cut in duty as mandatory under the Malaysia-India Comprehensive Economic Cooperation Agreement (MICECA). Signed in October 2010 with South East Asian countries.

A85/2019

- In the context of polity, which one of the following would you accept as the most appropriate definition of liberty?
 - A) Protection against the tyranny of political rulers
 - B) Absence of restraint
 - C) Opportunity to do whatever one likes
 - D) Opportunity to develop oneself fully

Liberty

- Liberty is the ability to do as one pleases
- In modern politics, liberty is the state of being free within society from oppressive restrictions imposed by authority on one's way of life, behaviour, or political views
- the word "liberty" to mean the absence of arbitrary restraints
- Thus liberty entails the responsible use of freedom under the rule of law without depriving anyone else of their freedom.
- 'A liberty for everyone to do what he likes, to live as he pleases, and not to be tied by any laws.

A86/2019

- Which one of the following is NOT the most likely measure the Government /RBI takes to stop the slide of Indian rupee?
 - A) Curbing imports of non-essential goods and promoting exports
 - B) Encouraging Indian borrowers to issue rupee denominated Masala Bonds
 - C) Easing conditions relating to external commercial borrowing
 - D) Following an expansionary monetary policy

Sliding of Indian Rupee

- Curbing imports of non essential goods will decrease the demand for dollars and promoting export will help in increasing the flow of dollars into the country.
- The Masala bonds are in Indian Currency. If Indian borrowers issues more such bonds, will increase in the rupee stock against few currencies in the market and this would help in supporting the rupee.
- it is a type of loan in foreign currencies, made by non-resident lenders. Thus easing conditions of ECB's helps in receiving more loans in foreign currencies that would in increase of forex inflow - leading to rupee appreciation.
- Expansionary Monetary Policy means increase in money supply by the RBI to stimulate economy but It cannot influence the forex.

A87/2019

- Consider the following statements:

The Reserve Bank of India's recent directives relating to 'Storage of Payment System Data' popularly known as data diktat, command the payment system providers that

1. They shall ensure that entire data relating to payment systems operated by them are stored in a system only in India
2. They shall ensure that the systems are owned and operated by public sector enterprises
3. They shall submit the consolidated system audit report to the Comptroller and Auditor General of India by the end of the calendar year

Which of the statements given above is/are correct?

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

'Storage of Payment System Data'

- The RBI had issued a directive in April 2018 on 'Storage of Payment System Data'. It had advised all system providers to ensure that within a period of six months, the entire data relating to payment systems operated by them is stored in a system only in India.
- Also, System Providers shall provide a System Audit Report (SAR) and the audit should be conducted by CERT-IN empanelled auditors.

A88/2019

- Which of the following adopted a law on data protection and privacy for its citizens known as “General Data Protection Regulation” in April 2016 and started implementation of it from 25th May, 2018?
 - A) Australia
 - B) Canada
 - C) The European Union
 - D) The United States of America

“General Data Protection Regulation”

- The General Data Protection Regulation (GDPR), agreed upon by the European Parliament and Council in April 2016, will replace the Data Protection Directive 95/46/ec in Spring 2018 as the primary law regulating how companies protect EU citizens' personal data.
- Requiring the consent of subjects for data processing.
- The GDPR's primary aim is to give control to individuals over their personal data
- Data subjects have the right to request a portable copy of the data collected by a controller in a common format, and the right to have their data erased under certain circumstances.

A89/2019

- Recently, India signed a deal known as 'Action Plan for Prioritization and Implementation of Cooperation Areas in the Nuclear Field' with which of the following countries?
 - A) Japan
 - B) Russia
 - C) The United Kingdom
 - D) The United States of America.

‘Action Plan for Prioritization and Implementation of Cooperation Areas in the Nuclear Field’

- During the visit of H. E. Vladimir Putin, President of the Russian Federation to India, Action Plan for Prioritization and Implementation of Co-operation Areas in the Nuclear Field Identified Jointly by India and Russia was signed on 5th October, 2018 in New Delhi.
- The two countries intent to develop a project of six nuclear power units of Russian design at a new site in India, further enhance cooperation in other countries and bring in new perspective nuclear technologies together with joint construction of nuclear power plants.

A90/2019

- The money multiplier in an economy increases with which one of the following?
 - A) Increase in the cash reserve ratio
 - B) Increase in the banking habit of the population
 - C) Increase in the statutory liquidity ratio
 - D) Increase in the population of the country

Money Multiplier

- The **Money Multiplier** refers to how an initial deposit can lead to a bigger final increase in the total money supply.
- The formula for the money multiplier is simply $1/r$, where r = the reserve ratio.
- An **effect** in economics in which an increase in spending produces an increase in national income and consumption greater than the initial amount spent. For **example**, if a corporation builds a factory, it will employ construction workers and their suppliers as well as those who work in the factory.

A91/2019

- In the context of digital technologies for entertainment, consider the following statements:
 1. In Augmented Reality (AR) , a simulated environment is created and the physical world is completely shut out.
 2. In Virtual Reality (VR), images generated from a computer are projected onto real-life objects or surroundings
 3. AR allows individuals to be present in the world and improves the experience using the camera of smart-phone or PC
 4. VR closes the world, and transposes an individual, providing complete immersion experience.

Which of the statements given above is/are correct?

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

VR and AR

- Virtual reality (VR) immerses users in a fully artificial digital environment.
- Augmented reality (AR) overlays virtual objects on the real-world environment.
- Mixed reality (MR) not just overlays but anchors virtual objects to the real world.

- The word 'Denisovan' is sometimes mentioned in media in reference to
 - A) fossils of a kind of dinosaurs
 - B) an early human species
 - C) a cave system found in North-East India
 - D) a geological period in the history of Indian subcontinent

'Denisovan'

- The **Denisovans** or Denisova hominins (/dɪˈniːsəvə/ di-NEE-sə-və) are an extinct species or subspecies of archaic human that ranged across Asia during the Lower and Middle Paleolithic. Denisovans are known from few remains, and, consequently, most of what is known about them comes from DNA evidence.
- For the first time, scientists have found fossils from an extinct ancient human lineage known as the Denisovans outside of Siberia.
- Denisovans were an extinct group of hominins that were close relatives of Neanderthals. They are known primarily from a handful of fossil fragments found at Denisova Cave in Siberia, and from genetic clues that linger in the DNA of people across Asia.

Denisovans

- East Asians seem to have the most Neanderthal DNA in their genomes, followed by those of European ancestry. Africans, long thought to have no Neanderthal DNA, were recently found to have genes from the hominins comprising around 0.3 percent of their genome.
- Neanderthals were very early (archaic) humans who lived in Europe and Western Asia from about 400,000 years ago until they became extinct about 40,000 years ago. Denisovans are another population of early humans who lived in Asia and were distantly related to Neanderthals.

A93/2015

- With reference to the recent developments in science, which one of the following statements is NOT correct?
 - A) Functional chromosomes can be created by joining segments of DNA taken from cells of different species
 - B) Pieces of artificial functional DNA can be created in laboratories.
 - C) A piece of DNA taken out from an animal cell be made to replicate outside a living cell in a laboratory.
 - D) Cells taken out from plants and animals can be made to undergo cell division in laboratory petri dishes.

Genetics

- US researchers have developed a living organism that incorporates both natural and artificial DNA and is capable of creating entirely new, synthetic proteins.
- A wide variety of double-stranded DNA templates are replicated extensively in an in vitro DNA replication system containing the purified proteins specified by seven T4 bacteriophage DNA replication genes (32, 41, 43, 44, 62, 45, and 61).
- Through micropropagation plant can be developed in laboratory and *Chlamydomonas* cells can be replicated in culture through light variations.

- Consider the following statements:

A digital signature is

1. An electronic record that identifies the certifying authority issuing it
2. Used to serve as a proof of identity of an individual to access information or server on Internet
3. An electronic method of signing an electronic document and ensuring that the original content is unchanged

Which of the statements given above is/are correct?

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

Digital Signature

- **Digital Signature** is a process that guarantees that the contents of a message have not been altered in transit. When you, the server, digitally sign a document, you add a one-way hash (encryption) of the message content using your public and private key pair.
- **Digital signatures** are a standard element of most cryptographic protocol suites, and are commonly used for software distribution, financial transactions, contract management software, and in other cases where it is important to detect forgery or tampering.
- **Digital signatures** reduce the risk of duplication or alteration of the document itself. Security features embedded in **digital signatures** ensure that documents have not been altered without authorization.

A95/2019

- In the context of wearable technology, which of the following tasks is/are accomplished by wearable devices?

1. Location identification of a person

2. Sleep monitoring of a person

3. Assisting the hearing-impaired person

- Select the correct answer using the code given below

A) 1 only

B) 2 and 3 only

C) 3 only

D) 1,2 and 3

Wearable devices

- **Wearable technology**, also known as "wearables", is a category of electronic devices that can be worn as accessories, embedded in clothing, implanted in the user's body, or even tattooed on the skin.
- The rapid adoption of such devices has placed **wearable technology** at the forefront of the Internet of things (IoT).
- Ex. Smart jewellery, such as rings, wristbands, watches and pins.
- Body-mounted sensors that monitor and transmit biological data for healthcare purposes.
- Fitness trackers, often in the form of wristbands or straps, that monitor things like physical activity and vital signs.

Wearable Devices

- Wearable technology can help address safety issues in the workplace such as fatigue and stress monitoring
- Fitness trackers can monitor stress levels by tracking heartrate and also regulate sleep pattern, viewing real life data will give employees the opportunity to tackle the issues head on.

A96/2019

- RNA interference (RNAi) technology has gained popularity in the last few years. Why?
 1. It is used in developing gene silencing therapies
 2. It can be used in developing therapies for the treatment of cancer.
 3. It can be used to develop hormone replacement therapies.
 4. It can be used to produce crop plants that are resistant to viral pathogens.

select the correct answer using the code given below.

A) 1,2 and 4

B) 2 and 3

C) 1 and 3

D) 1 and 4 only

RNA Interference

- RNA interference (RNAi), regulatory system occurring within eukaryotic cells (cells with a clearly defined nucleus) that controls the activity of genes. RNAi functions specifically to silence, or deactivate, genes. RNAi is being explored as a form of treatment for a variety of diseases, including macular degeneration, hepatitis, AIDS, Huntington disease, and cancer. RNAi is used as a natural defense mechanism against molecular parasites such as jumping genes and viral genetic elements.

A97/2019

- Recently scientists observed the merger of giant ‘blackholes’ billions of light-years away from the Earth. What is the significance of this observation?
 - A) ‘Higgs boson particles’ were detected
 - B) ‘Gravitational waves’ were detected
 - C) Possibility of inter-galactic space travel through ‘wormhole’ was confirmed
 - D) It enabled the scientists to understand ‘singularity’.

Merger of Blackholes

- When the two supermassive black holes in each of these systems finally come together in millions of years, their encounters will produce immense amount of energy as strong gravitational waves.
- The Black hole will merge once they are close enough.
- A **black hole** is a tremendous amount of matter crammed into a very small – in fact, zero – amount of space. The result is a powerful gravitational pull, from which not even light can escape – and, therefore, we have no information or insight as to **what life is like inside**.
- The quintessential feature of a **black hole** is its "point of no return," or what is more technically called its event horizon

A98/2019

- Which of the following are the reasons for the occurrence of multi-drug resistance in microbial pathogens in India?
 1. Genetic predisposition of some people
 2. Taking incorrect doses of antibiotic to cure disease
 3. Using antibiotics in livestock farming
 4. Multiple chronic diseases in some people

Select the correct answer using the code given below.

A) 1 and 2

B) 2 and 3 only

C) 1,3 and 4

D) 2,3 and 4

Multi Drug Resistance

- Antimicrobial resistance occurs naturally over time, usually through genetic changes.
- However, the misuse and overuse of antimicrobials is accelerating this process. In many places, antibiotics are overused and misused in people and animals, and often given without professional oversight.
- Examples of misuse include when they are taken by people with viral infections like colds and flu, and when they are given as growth promoters in animals or used to prevent diseases in healthy animals.

A99/2019

- What is Cas9 protein that is often mentioned in news?
 - A) A molecular scissors used in targeted gene editing
 - B) A biosensor used in the accurate detection of pathogens in patients
 - C) A gene that makes plants pest-resistant
 - D) A herbicidal substance synthesized in genetically modified crops.

Cas9 protein

- CRISPR Cas9 is an acronym for “Clustered Regularly Interspaced Short Palindromic Repeats.” CRISPR genome engineering technology enables scientists to easily and precisely edit the DNA of any genome.

A100/2019

- Which one of the following statements is NOT correct?
 - A) Hepatitis B virus is transmitted much like HIV
 - B) Hepatitis B unlike Hepatitis C does not have a vaccine.
 - C) Globally the number of people infected with Hepatitis B and C viruses are several times more than those infected with HIV
 - D) Some of those infected with Hepatitis B and C viruses do not show the symptoms for many years.

Hepatitis B

- The hepatitis B vaccine is a safe and effective vaccine that is recommended for all infants at birth and for children up to 18 years.
- The hepatitis B vaccine is also known as the first “anti-cancer” vaccine because it prevents hepatitis B, the leading cause of liver cancer worldwide.

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

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

CUT OFF FOR 2019

Exam	General	EWS	OBC	SC	ST	PwBD-1	PwBD-2	PwBD-3	PwBD-5
CS(Prelim)**	98.00	90.00	95.34	82.00	77.34	53.34	44.66	40.66	61.34
CS(Main)†	751	696	718	706	699	663	698	374	561
CS(Final)	961	909	925	898	893	861	890	653	708

Thank You