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# **Prelims Marathon**

21st to 27th September, 2020

HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT

# History

- **Q.1)** The "Thomas Daniel, Tilly Kettle and George Willison" is associated to which of the following?
- a) British Parliament members to deal with East India Company Affairs.
- b) Advisors of Secretary of State of British India.
- c) European Artists who visited British India.
- d) European Social Scientists who studied the British colonial system.

#### ANS: C

**Explanation:** One popular imperial tradition was that of picturesque landscape painting.

- This style of painting depicted India as a quaint land, to be explored by travelling British artists; its landscape was rugged and wild, seemingly untamed by human hands
- Thomas Daniell and his nephew William Daniell was the most famous of the artists who painted within this tradition.
- They came to India in 1785 and stayed for seven years, journeying from Calcutta to northern and southern India.
- They produced some of the most evocative picturesque landscapes of Britain's newly conquered territories in India.

Their large oil paintings on canvas were regularly exhibited to select audiences in Britain, and their albums of engravings were eagerly bought up by a British public keen to know about Britain's empire.

**Tilly Kettle and George Willison** are the European artists who visited India (south), to paint Muhhammad Ali Khan portraits, and gifted these paintings to the King of England and the Directors of the East India Company.

- **Q.2)** The words "pataus and kumors" is associated with which of the following?
- a) Painters and Goldsmiths
- b) Nomads and Pastoralists
- c) Painters and Potters
- d) Writers and Dancers

#### ANS: C

Explanation: In Bengal, around the pilgrimage centre of the temple of Kalighat, local village scroll painters (called patuas) and potters (called kumors in eastern India and kumhars in north India) began developing a new style of art.

- Before the nineteenth century, the village patuas and kumors had worked on mythological themes and produced images of gods and goddesses.
- On shifting to Kalighat, they continued to paint these religious images.
- Traditionally, the figures in scroll paintings looked flat, not rounded.
- Now Kalighat painters began to use shading to give them a rounded form, to make the images look three-dimensional. Yet the images were not realistic and lifelike.
- In fact, what is specially to be noted in these early Kalighat paintings is the use of a bold, deliberately non-realistic style, where the figures emerge large and powerful, with a minimum of lines, detail and colours.

**Q.3)** In Medieval and Modern period of India, the "wootz steel" is widely used for making swords?

- a) Central India
- b) North India
- c) Western India
- d) South India

#### ANS: D

Explanation: The Tipu's sword had an incredibly hard and sharp edge that could easily rip through the opponent's armour.

- This quality of the sword came from a special type of high carbon steel called Wootz which was produced all over south India.
- Wootz steel when made into swords produced a very sharp edge with a flowing water pattern.
- This pattern came from very small carbon crystals embedded in the iron.
- Francis Buchanan, who toured through Mysore in 1800, a year after Tipu Sultan's death, has left us an account of the technique by which Wootz steel was produced in many hundreds of smelting furnaces in Mysore.
- Wootz is an anglicized version of the Kannada word ukku, Telugu hukku and Tamil and Malayalam urukku meaning steel.
- Indian Wootz steel fascinated European scientists.
- Michael Faraday, the legendary scientist and discoverer of electricity and electromagnetism, spent four years studying the properties of Indian Wootz (1818-22).
- However, the Wootz steel making process, which was so widely known in south India, was completely lost by the mid-nineteenth century.

Q.4) The "patola, jamdani and chintz" is associated with which of the following?

- a) Decorative motifs on cloths
- b) Tax collectors in different areas
- c) Bonded labour system prevailed in different areas
- d) Money lending systems

#### ANS: A

**Explantion: Patola** was woven in **Surat, Ahmedabad and Patan**. Highly valued in Indonesia, it became part of the local weaving tradition there.

**Jamdani** is fine muslin on which decorative motifs are woven on the loom, typically in grey and white.

- Often a mixture of cotton and gold thread was used, as in the cloth in this picture.
- The most important centres of jamdani and mulmul weaving were Dacca in Bengal and Lucknow in the United Provinces.

Chintz: Printed design on fine cloth (chintz) produced in Masulipatnam, Andhra Pradesh, mid nineteenth century.

- This is a fine example of the type of chintz produced for export to Iran and Europe.
- Amongst the pieces ordered in bulk were printed cotton cloths called chintz, cossaes (or khassa) and bandanna.

Similarly, the word **bandanna** now refers to any brightly coloured and printed scarf for the neck or head.

- Originally, the term derived from the word "bandhna" (Hindi for tying), and referred to a variety of brightly coloured cloth produced through a method of tying and dying.
- Bandanna patterns were mostly produced in Rajasthan and Gujarat.

Q.5) Which of the following bhakti saint (s) is/are contemporaries of Kabir?

- 1. Raidas
- 2. Manikkavasagar
- 3. Namdev

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 only
- d) 3 only

#### ANS: A

**Explanation:** Kabir, who probably lived in the fifteenth-sixteenth centuries, was one of the most influential saints.

- He was brought up in a family of Muslim julahas or weavers settled in or near the city of Benares (Varanasi). We have little reliable information about his life.
- We get to know of his ideas from a vast collection of verses called sakhis and pads said to have been composed by him and sung by wandering bhajan singers.
- Some of these were later collected and preserved in the Guru Granth Sahib, Panch Vani and Bijak.
- Kabir's teachings were based on a complete, indeed vehement, rejection of the major religious traditions.



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**Q.6)** The "varkari sect" is related to which of the following?

- a) Jainism
- b) Buddhism
- c) Shaivism
- d) Vaishnavism

#### ANS: D

**Explanation:** The Vaishnava poet-saints of Maharashtra such as Jnaneshwar, Namadeva, Eknath and Tukaram, Sakhubai and the family of Chokhamela, who belonged to the "untouchable" Mahar caste, were devotees of lord Vitthala (form of lord Vishnu).

- Devotion around lord Vitthala gave rise to the Varkari sect which lay emphasis on an annual pilgrimage to **Pandharpur**.
- The cult of Vitthala emerged as a powerful mode of devotion and was very popular amongst the people.

Q.7) The "Appar, Sambandar and Manikkavasagar" is associated with which of the following?

- a) Buddhism
- b) Vira-shavites
- c) Nayanars
- d) Alvars

# ANS: C

**Explanation:** Nayanars: There were 63 Nayanars, who belonged to different caste backgrounds such as potters, "untouchable" workers, peasants, hunters, soldiers, Brahmanas and chiefs.

- The best known among them were Appar, Sambandar, Sundarar and Manikkavasagar.
- There are two sets of compilations of their songs **Tevaram and Tiruvacakam**.

Alvars: There were 12 Alvars, who came from equally divergent backgrounds, the best known being Periyalvar, his daughter Andal, Tondaradippodi Alvar and Nammalvar.

• Their songs were compiled in the **Divya Prabandham**.

**Q.8)** Which of the following pair (s) is/are **NOT** correctly matched?

Poet:Work1. Silappadikaram:Sattanar2. Manimekalai:Ilango3. Meghaduta:Kalidasa

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 only
- d) 3 only

#### ANS: B

**Explanation: Epics** are grand, long compositions, about heroic men and women, and include stories about gods.

- A famous Tamil epic, the **Silappadikaram**, was composed by a poet named Ilango, around 1800 years ago.
- It is the story of a merchant named Kovalan, who lived in Puhar and fell in love with a courtesan named Madhavi, neglecting his wife Kannagi.

- Another Tamil epic, the **Manimekalai was composed by Sattanar** around 1400 years ago. This describes the story of the daughter of Kovalan and Madhavi.
- Kalidasa Meghaduta in Sanskrit.

# Q.9) Consider the following statements regarding the "Sikh style of Architecture":

- 1. The use of multiple Chhatris or kiosks on the top of the construction.
- 2. The buildings had fluted domes, which were generally covered by brass and copper guilds for decoration and support.

Which of the statements given above is/are **NOT** correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

#### ANS: D

**Explanation:** Sikh style of architecture developed in the region of modern day Punjab. It was heavily influenced by the Mughal style of architecture. Some of the features of the Sikh school are:

- The use of multiple Chhatris or kiosks on the top of the construction.
- Use of shallow cornices. The buildings had fluted domes, which were generally covered by brass and copper guilds for decoration and support.
- The arches were decorated by the use of numerous foliations.
- Example: Shri Harmandir Sahib or Golden temple. It was initiated in 1585 and completed by Arjan Dev in 1604.

# Q.10) Consider the following statements regarding the difference between "Greek and Roman styles of Art":

- 1. The Greek style is realistic in nature and Roman is Idealistic in nature.
- 2. Greeks used Concrete and Romans used marble as raw material for building the art.
- 3. Gandhara School integrates both the styles.

Which of the following above statements is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 3 only
- d) 2 and 3 only

# ANS: C

# Explanation: There exists some difference between Greek and Roman styles and Gandhara School integrates both the styles.

- The idealistic style of Greeks is reflected in the muscular depictions of Gods and other men showing strength and beauty.
- Lots of Greek mythological figures from the Greek Parthenon have been sculpted using marble.
- On the other hand, Romans used art for ornamentation and decoration and is realistic in nature as opposed to Greek idealism.
- The Roman art projects realism and depicts real people and major historical events.
- The Romans used concrete in their sculptures. They were also famous for their mural paintings.

# Economy

- **Q.1)** Recently, the government of India announced annual mega shopping festivals on four themes. Which of the following are the four themes?
- 1. Engineering products
- 2. Gems and Jewellery
- 3. Handicrafts
- 4. Textiles
- 5. Leather

Select the correct answer using the code given below:

- a) 1, 2, 3 and 5 only
- b) 2, 3, 4 and 5 only
- c) 1, 2, 3 and 4 only
- d) 1, 2, 4 and 5 only

#### ANS: B

**Explanation:** India will hold annual mega shopping festivals in four places starting March 2020 on four themes — Gems and Jewellery, handicrafts/yoga/tourism, textiles, and leather.

- Q.2) Consider the following statements regarding the "Effective Tax Rate":
- 1. The effective tax rate for a corporation is the average rate at which its pre-tax profits are taxed.
- 2. Effective tax rate represents the percentage of their taxable income that individuals have to pay in taxes.
- 3. The effective tax rate is a more accurate representation of a person's or corporations overall tax liability than their marginal tax rate, and it is typically lower.

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

# ANS: D

**Explanation:** The effective tax rate is the average tax rate paid by an individual or a corporation.

- The effective tax rate for individuals is the average rate at which their earned income, such as wages, and unearned income, such as stock dividends, is taxed.
- The effective tax rate for a corporation is the average rate at which its pre-tax profits are taxed, while the statutory tax rate is the legal percentage established by law.
- The effective tax rate is a more accurate representation of a person's or corporations overall tax liability than their marginal tax rate, and it is typically lower.
- When considering a marginal versus an effective tax rate, bear in mind that the marginal tax rate refers to the highest tax bracket into which their income falls.
- **Q.3)** Recently, government of India announced the tax cuts for Corporations. What would be the **likely impact on economy** due to tax cuts?
- 1. It will raise the animal spirits of investors.
- 2. It will put more money on the hands of private sector.

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3. It will raise the exports.

Which of the statements given above is/are correct?

- a) 1, 2 and 3
- b) 1 and 2 only
- c) 3 only
- d) 2 and 3 only

#### ANS: A

**Explanation:** Finance Minister Nirmala Sitharaman announced a significant cut in corporate tax rates, thus bringing down the effective tax rate (including various cesses and surcharges) on corporations from 35% to 25%.

- Also under the new corporate tax policy, new companies that set up manufacturing
  facilities in India starting in October and commence production before the end of
  March, 2023 will be taxed at an effective rate of 17%.
- Following the government's decision, both the NIFTY and the SENSEX rose over 5%, which is their biggest one-day rise in a decade.
- Tax cuts, by putting more money in the hands of the private sector, can offer people more incentive to produce and contribute to the economy. Thus the present tax cut can help the wider economy grow.
- The corporate tax rate, it is worth noting, is also a major determinant of how investors allocate capital across various economies.
- So there is constant pressure on governments across the world to offer the lowest tax rates in order to attract investors.
- The present cut in taxes can make India more competitive on the global stage by making Indian corporate tax rates comparable to that of rates in East Asia.
- The tax cut, however, is expected to cause a yearly revenue loss of ₹1.45 lakh crore to the government which is struggling to meet its fiscal deficit target.
- At the same time, if it manages to sufficiently revive the economy, the present tax cut can help boost tax collections and compensate for the loss of revenue.

Q.4) The "SAFE PLUS loans" is often seen in news is related to which of the following?

- a) NABARD
- b) SIDBI
- c) SBI
- d) EXIM

#### ANS: B

**Explanation:** The SIDBI Assistance to Facilitate Emergency response against Corona virus - SAFE PLUS will be offered collateral free and disbursed within 48 hours.

- SIDBI informed that the loans will be offered at an interest rate of five per cent.
- Meanwhile, the bank further informed that the limit of SAFE loans, announced a few days back has been enhanced from 50 lakh rupees to two crore rupees.
- The scheme was launched to provide financial assistance to MSMEs engaged in manufacturing of hand sanitizers, masks, gloves, head gear, bodysuits, shoe-covers, ventilators and goggles used in dealing with COVID-19.

# **Q.5)** Consider the following statements regarding the "Long Term Repo Operations (LTRO)":

- 1. It is a tool that lets banks borrow five year tenure funds from the central bank at the repo rate.
- 2. It provides banks with access to cheaper capital from the RBI.

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

#### ANS: B

Explanation: LTRO is a tool that lets banks borrow one to three-year funds from the central bank at the repo rate, by providing government securities with similar or higher tenure as collateral.

- This helps banks get funds for a longer duration as compared to the short-term (up to 28 days) liquidity provided by the RBI through other tools such as Liquidity Adjustment Facility (LAF) and Marginal Standing Facility (MSF).
- It is called 'Targeted' LTRO as in this case, the central bank wants banks opting for funds under this option to be specifically invested in investment-grade corporate
- LTROs provide banks with access to cheaper capital from the RBI.
- This, in turn, encourages them to lend more and spur economic activity. They can also invest these long-term funds in assets that yield better returns to improve profitability.
- Also, as banks provide government securities as collateral, the demand for such government bonds increases and helps in lowering yield.
- RBI stipulated that small and mid-sized NBFCs and micro-finance institutions (MFIs) should receive at least 50% of these funds.
- Banks can avail ₹ 50,000 crore through the targeted long-term repo operation

Q.6) The term "Helicopter money" is often seen in news is coined by which of the following economist?

- a) Raghu Ram Rajan
- b) Milton Friedman
- c) Paul Krugman
- d) J M Keynes

#### ANS: B

Explanation: Recently, the Telangana Chief Minister suggested that the helicopter money can help states to come out of the economic chaos created by Covid-19 pandemic.

- Helicopter money is an unconventional monetary policy tool, which involves printing large sums of money and distributing it to the public, to stimulate the economy during a recession (decline in general economic activity) or when interest rates fall to zero.
- The term was coined by American economist Milton Friedman; it basically denotes a helicopter dropping money from the sky.

Q.7) Which of the following sectors comes under "priority sector lending (PSL)"?

- 1. Export Credit
- 2. Education
- 3. Housing
- 4. Social Infrastructure

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only

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- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

# ANS: D

**Explanation:** Under Priority Sector Lending (PSL) guidelines, banks have to set aside a specific portion of bank lending to sectors deemed important by the central bank.

The following are the categories listed by RBI under PSL:

- Agriculture
- Micro, Small and Medium Enterprises
- Export Credit
- Education
- Housing
- Social Infrastructure
- Renewable Energy

# Q.8) Consider the following statements regarding "Local Area Banks (LABs)":

- 1. They were created to bridge the gaps in credit availability and enhance the institutional credit framework in the rural and semi-urban areas.
- 2. The minimum start-up capital of a LAB was fixed at Rs.5crore.

Which of the statements given above is/are **NOT** correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

#### ANS: D

**Explanation:** In 1996 it was decided to allow the establishment of local banks in the private sector.

- These banks were expected to bridge the gaps in credit availability and enhance the
  institutional credit framework in the rural and semi-urban areas and provide
  efficient and competitive financial intermediation services in their area of operation.
- The minimum start-up capital of a LAB was fixed at Rs.5 crore.
- The promoters of these banks were required to bring in the entire minimum share capital up-front.
- It was also decided that a family among the promoter group could hold equity not exceeding 40% of the capital.
- The NRI contributions to the equity of the bank were not to exceed 40% of the paidup capital.
- The entire initial capital subscribed by the promoters (including their friends and relatives/associates) would carry a lock in period of three years from the date of licensing of the bank.
- Further, the promoters' equity to the extent of 40% of the initial paid- up capital was to be locked in at least for two years beyond the aforesaid period of three years subject to review before expiry of five years from the date of licensing of the bank.
- The promoters of a LAB could be individuals, corporate entities and societies. The number of NRI promoters was not to exceed 20% of the total number of promoters.

**Q.9)** Consider the following statements regarding the economic conditions in India at the time of independence:

- 1. The structural distortions in industrial sector.
- 2. The unilateral transfer of investible capital to Britain.

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- 3. Agriculture sector growth is positive in nature Which of the statements given above is/are correct?
- a) 1 only
- b) 1 and 2 only
- c) 3 only
- d) None

#### ANS: B

**Explanation:** The economic profile of India was in complete distress at the time of Independence.

- Being a typical case of colonial economy, India was serving a purpose of development not for herself but for a foreign land—the United Kingdom.
- Both agriculture and industry were having structural distortions while the state was
  playing not even a marginal role.
- During the half century before India became independent, the world was having accelerated development and expansion in its agriculture and industry on the shoulders of the active role being played by the states, with the same happening in the UK itself.
- There was not only the unilateral transfer of investible capital to Britain by the colonial state (the 'drain of wealth'), but the unequal exchange was day by day crippling India's commerce, trade and the thriving handloom industry, too.

**Q.10)** Which one among the following items has maximum weight in wholesale price index (WPI)?

- a) Raw materials
- b) Fuel and electricity
- c) Food items
- d) Manufactured products

#### ANS: D

**Explanation:** Wholesale Price Index (WPI) measures the average change in the prices of commodities for bulk sale at the level of early stage of transactions.

The index basket of the WPI covers commodities falling under the three major groups namely Primary Articles, Fuel and Power and Manufactured products. (The index basket of the present 2011-12 series has a total of 697items including 117 items for Primary Articles, 16 items for Fuel & Power and 564 items for Manufactured Products.)

# Polity

- **Q.1)** "The President may, with respect to any State or Union territory, and where it is a state, after consultation with the Governor there of by public notification, specify the tribes or tribal communities or parts of or groups within tribes or tribal communities which shall, for the purposes of this constitution, is deemed to be scheduled tribes in relation to that state or Union Territory, as the case may be" describes which of the following Article of Indian Constitution?
- a) Article 366
- b) Article 355
- c) Article 332
- d) Article 342

#### ANS: D

Explanation: Article 342. Scheduled Tribes—

- (1) The President may with respect to any State or. Union Territory and where it is a State, after consultation with the Governor thereof by public notification, specify the tribes or tribal communities or parts of or groups within tribes or tribal communities which shall for the purpose of this Constitution be deemed to be Scheduled Tribes in relation to that State or Union Territory, as the case may be.
- (2) Parliament may by law include in or exclude from the list of Scheduled Tribes specified in a notification issued under clause (1) any tribe or tribal community or part of or group within any tribe or tribal community, but save as aforesaid a notification issued under 'the said clause shall not be varied by any subsequent notification.
- Q.2) Consider the following statements regarding the "Particularly Vulnerable Tribal Groups (PVTGs)":
- 1. Ministry of Home Affairs characterizes a tribe as Particularly Vulnerable Tribal Groups (PVTGs).
- 2. Highest number of PVTGs are located in Madhya Pradesh.

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

#### ANS: A

Explanation: 75 tribal groups have been categorized by Ministry of Home Affairs as Particularly Vulnerable Tribal Groups (PVTG)'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.

State-wise list of Particularly Vulnerable Tribal Groups (PVTGs)						
Name of States/Union Territory	S.No	Name of the Particularly Vulnerable Tribal Group		Name of States/Union Territory	S.No	Name of the Particularly Vulnerable Tribal Group
Andhra Pradesh (including Telangana)	2	Chenchu Bodo Gadaba		Maharashtra	41	Katkaria /kathodi
	3	Gutob Gadaba			42	Kolam
	4	Dongaria Khond			43	Maria Gond
	5	Kutia Kondha	Manipur	Manipur	44	Maram Naga
	6	Kolam		Manipui		Marain Naga
	7	Konda Reddi		Orissa	45	Chukutia Bhunjia
	8	Kondasavara			46	Birhore
	9	Bondo Porja			47	Bondo
	_					
	10	Khond Porja			48	Didayi
	11	Parengi Porja			49	Dongaria Khond
	12	Tothi				
Bihar (including Jharkhand)	13	Asur			50	Juang
	14	Birhor			51	Kharia
	15	Birjia			52	Kutia Kondha
	16	Hill Kharia			53	Lanjia Saura
	17	Korwa	Rajasthan	54	Lodha	
	18	Mal Paharia			55	Mankirdia
	19	Parhaiya			56	Paudi Bhuiya
	20	Sauria Paharia			57	Saura
	21	Savara		Rajasthan	58	Saharia
Gujarat	22	Kolgha			59	Irular
	23	Kathodi		Tamil Nadu	60	Kattunayakan
	24	Kotwalia			61	Kota
	25	Padhar			62	Korumba
	26	Siddi			63	Paniyan
Karnataka	27	Jenu Kuruba			64	Toda
	28	Koraga		Tripura	65	Raing
Kerala	29	Cholanaikayan	(including Uttrakhand) West Bengal	Uttar Pradesh	66	Buksa
	30	Kadar			67	Raji
	31	Kattunayakan		West Bengal	68	Birhor
	32	Koraga			69	Lodha
	33	Kurumbas			70	Totos
	34	Abujh Maria			71	Great Andamanies
Madhya Pradesh	35	Baiga		72	Income	
(including	37	Bharia		Andaman & Nicobar island	73	Jarawa
Chhattisgarh)	38	Birhor Hill Korba			74	Onge
	39	Kamar			/4	Sentinelese
	40	Sahariya			75	Shom Pen
	70	Sandriya				

PVTGs are more vulnerable among the tribal groups. Due to this factor, more developed and assertive tribal groups take a major chunk of the tribal development funds, because of which PVTGs need more funds directed for their development.

In this context, 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, spread over 17 states and one Union Territory (UT), in the country (2011 census).

Q.3) Which of the following Act/rule defines the "minor forest produce"?

- a) Indian forests act, 1878
- b) Indian forests act, 1927
- c) The Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996
- d) Recognition of Forest Rights Act, 2006

#### ANS: D

**Explanation:** The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 defines a Minor Forest Produce (MFP) as all non-timber forest produce of plant origin and includes bamboo, brushwood, stumps, canes, Tusser, cocoon, honey, waxes, Lac, tendu/kendu leaves, medicinal plants and herbs, roots, tuber and the like.

Q.4) Which of the following pair (s) is/are correctly matched?

**Tribe** : **State** 1. Reang tribe : Tripura

2. Chenchu tribe : Andhra Pradesh
3. Sahariya tribe : Himachal Pradesh
Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3 only
- c) 1 and 2 only
- d) 2 only

#### ANS: C

**Explanation:** The **Saharia**, Sahar, Sehariya, or Sahariya are an ethnic group in the state of Madhya Pradesh, India.

- **Chenchus** are a designated Scheduled Tribe in the Indian states of Andhra Pradesh, Telangana, Karnataka and Odisha.
- **Reang (aka Bru in Mizoram)** are one of the 21 scheduled tribes of the Indian state of Tripura.
- Q.5) Consider the following statements regarding the "price stabilization fund scheme":
- 1. It helps to regulate the price volatility of important agri-horticultural commodities.
- 2. It provides for maintaining a strategic buffer of aforementioned commodities for subsequent calibrated release to moderate price volatility.
- 3. Department of Agriculture, Cooperation & Famers Welfare (DAC&FW) is the nodal agency to implement the scheme.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

# ANS: B

**Explanation:** The Price Stabilization Fund (PSF) was set up in 2014-15 under the Department of Agriculture, Cooperation & Famers Welfare (DAC&FW).

- The PSF scheme was later transferred from DAC&FW to the Department of Consumer Affairs (DOCA) in 2016.
- The fund is to help regulate the price volatility of important agri-horticultural commodities like onion, and potatoes. Pulses were also added subsequently.

- The scheme provides for maintaining a strategic buffer of aforementioned commodities for subsequent calibrated release to moderate price volatility and discourages hoarding and unscrupulous speculation.
- For building such stock, the scheme promotes direct purchase from farmers/farmers'association at farm gate/Mandi.
- The PSF is utilized for granting interest free advance of working capital to Central Agencies, State/UT Governments/Agencies to undertake market intervention operations.

**Q.6)** The "**SAKALA scheme**" - to curb corruption in public service delivery in key departments is launched by which of the following state?

- a) Tamil Nadu
- b) Maharashtra
- c) Gujarat
- d) Karnataka

### ANS: D

**Explanation:** The scheme is being implemented in the State of Karnataka to curb corruption in public service delivery in key departments.

- More than 725 services are being provided under this mission.
- Now, the state government has proposed to launch the version 2 of SAKALA scheme with the existing SAKALA-1 fails to curb corruption.
- SAKALA -2 will address shortcomings in the existing Act by including a provision for imposing penalty of Rs. 250 per day for delay in addressing complaints.

**Q.7)** With reference to Pradhan Mantri Matru Vandana Yojana (PMMVY)/Maternity Benefit Programmee, government provides cash incentives to pregnant and lactating women. Which of the following conditions is/are eligible to get cash incentive (s)?

- 1. For the wage loss so that the woman can take adequate rest before and after delivery.
- 2. To improve her health and nutrition during the period of pregnancy and lactation.
- 3. To breastfeed the child during the first nine months of the birth which is very vital for the development of the child.

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

# ANS: B

**Explanation:** Pan-India Expansion of Indira Gandhi MatritvaSahyog Yojana is called Pradhan Mantri Matru Vandana Yojana (PMMVY)/Maternity Benefit Programmee.

The Scheme provides cash incentives to pregnant and lactating women.

- For the wage loss so that the woman can take adequate rest before and after delivery;
- To improve her health and nutrition during the period of pregnancy and lactation;
- To breastfeed the child during the first six months of the birth, which is very vital for the development of the child.

All Pregnant Women and Lactating Mothers (PW&LM), excluding those in regular employment with the Government or PSUs or those who are in receipt of similar benefits under any law for the time being are eligible.

- Pregnant Women and Lactating Mothers who are eligible will receive a cash benefit of Rs.5,000/- in three instalment.
- The cash incentive is payable in three instalments for the first live birth, as normally, the first pregnancy of a woman exposes her to new kind of challenges and stress factors.
- However, to address the problem of malnutrition and morbidity among children, the anganwadi services, which is universal, is available to all PW&LM including the second pregnancy.
- The cash transfer would be Aadhaar linked through the individual bank/post office account etc. in DBT mode.
- It is a Centrally Sponsored Scheme and the cost sharing between Centre and States is 60:40 for all the States and UTs (with legislature), 90:10 for NER and Himalayan States and 100% GoI share for UTs without legislatures.
- Thus a PW&LM will get Rs. 5,000/- under PMMVY and the remaining cash incentive as per approved norms under Janani Suraksha Yojana (JSY) after institutional delivery so that on an average, a woman gets Rs. 6000/-

# Q.8) Consider the following statements regarding "Rajya Sabha":

- 1. It is a permanent body and not subject to dissolution.
- 2. The Constitution has not fixed the term of office of members of the Rajya Sabha. Which of the statements given above is/are correct?
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

#### ANS: C

**Explanation:** The Rajya Sabha (first constituted in 1952) is a continuing chamber, that is, it is a permanent body and not subject to dissolution.

- However, one-third of its members retire every second year.
- Their seats are filled up by fresh elections and presidential nominations at the beginning of every third year.
- The retiring members are eligible for re-election and renomination any number of times.
- The Constitution has not fixed the term of office of members of the Rajya Sabha and left it to the Parliament.
- Accordingly, the Parliament in the Representation of the People Act (1951) provided that the term of office of a member of the Rajya Sabha shall be six years.

#### **Q.9)** Consider the following statements regarding "adjournment motion":

- 1. It is introduced in the Parliament for a definite matter of urgent public importance.
- 2. It needs the support of 50 members to be admitted.
- 3. Rajya Sabha is also permitted to make use of the adjournment motion Which of the Statements given above is/are **NOT** correct?
- a) 1 only
- b) 1 and 2 only
- c) 3 only
- d) 2 and 3 only

#### ANS: C

**Explanation:** Adjournment Motion is introduced in the Parliament to draw attention of the House to a definite matter of urgent public importance, and needs the support of 50 members to be admitted.

- As it interrupts the normal business of the House, it is regarded as an extraordinary device
- It involves an element of censure against the government and hence Rajya Sabha is not permitted to make use of this device.
- The discussion on an adjournment motion should last for not less than two hours and thirty minutes.

# Q.10) Consider the following statements regarding "Constituent Assembly":

- 1. It was constituted under the scheme formulated by the Cripps Mission.
- 2. The members of the Constituent Assembly were elected directly.

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

#### ANS: D

**Explanation:** The Constituent Assembly was constituted in November 1946 under the scheme formulated by the Cabinet Mission Plan. The features of the scheme were:

- The total strength of the Constituent Assembly was to be 389. Of these, 296 seats were to be allotted to British India and 93 seats to the Princely States. Out of 296 seats allotted to the British India, 292 members were to be drawn from the eleven governors' provinces and four from the four chief commissioners' provinces, one from each.
- Each province and princely state (or groups of states in case of small states) were to be allotted seats in proportion to their respective population. Roughly, one seat was to be allotted for every million population.
- Seats allocated to each British province were to be divided among the three principal communities—Muslims, Sikhs and general (all except Muslims and Sikhs), in proportion to their population.
- The representatives of each community were to be elected by members of that community in the provincial legislative assembly and voting was to be by the method of proportional representation by means of single transferable vote.
- The representatives of princely states were to be nominated by the heads of the princely states.
- It is thus clear that the Constituent Assembly was to be a partly elected and partly nominated body. Moreover, the members were to be indirectly elected by the members of the provincial assemblies, who themselves were elected on a limited franchise.

# Science and technology

- Q.1) The term "GW190412" is often seen in news is related to which of the following?
- a) Detection of a merger of two unequal-mass black holes.
- b) Bacterial strain that consumes complex aromatic compounds.
- c) It is an asteroid which rotating very near to earth orbit.
- d) A massive west Antarctica ice-sheet.

#### ANS: A

Explanation: For the first time since it started functioning, the gravitational wave observatories at LIGO scientific collaboration have detected a merger of two unequalmass black holes

- The event, dubbed GW190412, was detected nearly a year ago, and this is almost five years after the first ever detection of gravitational wave signals by these powerful detectors.
- Subsequent analysis of the signal coming from the violent merger showed that it involved two black holes of unequal masses coalescing, one of which was some 30 times the mass of the Sun and the other which had a mass nearly 8 times the solar mass.
- The actual merger took place at a distance of 2.5 billion light years away.

Q.2) Consider the following statements regarding the "Primordial Black Holes":

- 1. PBHs were formed during the Hot Big Bang phase.
- 2. PBH can be massively large as 3000kms or be extremely tiny like nucleus of an atom. Which of the following statements given above is/are **NOT** correct?
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

# ANS: D

**Explanation:** Primordial Black Holes (PBH) were formed during the Hot Big Bang phase.

- PBH can be massively large as 3000kms or be extremely tiny like nucleus of an atom.
- It is believed that they are formed as a result of collapsing radiations as opposed to the collapse of massive stars, which is the case of any other black holes.
- A recent study on Primordial black holes has confirmed that this marginal rise in potential energy resulted in birth of several PBHs and also emitted very powerful gravitational waves.
- Inter University Centre for Astronomy and Astrophysics (IUCAA), has studied primordial black holes that were born as a result of a tiny bump in the potential energy levels of the universe, at a time when it was expanding rapidly.
- **Q.3)** The "Artemis (human spaceflight programme)" is recently in news is launched by which of the following space agency?
- a) European Space agency
- b) Roscosmos
- c) NASA

d) JAXA

#### ANS: C

**Explanation:** The Artemis program is a US (NASA) government-funded crewed spaceflight program that has the goal of landing "the first woman and the next man" on the Moon, specifically at the lunar South Pole region by 2024.

- **Q.4)** The **X-ray Polarimeter Satellite (XPoSat)** is a planned space observatory to study polarization of cosmic X-rays is going to launch by which of the following agency?
- a) ISRO
- b) NASA
- c) JAXA
- d) Both A and B

#### ANS: A

**Explanation:** The X-ray Polarimeter Satellite is a planned space observatory to study polarisation of cosmic X-rays.

- It is planned to be launched in 2021, and to provide a service time of at least five years.
- The telescope is being developed by the Indian Space Research Organisation (ISRO) and the Raman Research Institute.
- **Q.5)** Which of the following country is **NOT** a member of Quadrilateral Security Dialogue (QSD, also known as the Quad)?
- a) Japan
- b) South Korea
- c) Australia
- d) United States of America

#### ANS: B

**Explanation:** The Quadrilateral Security Dialogue (QSD), better known as the 'Quad', started as a strategic dialogue in 2007.

- The dialogue members included India, the US, Australia and Japan.
- It was established to check the growth of Chinese power in what was still referred to as 'Asia-Pacific', and which has since become 'Indo-Pacific'.
- The Quad had its real genesis in the response to the 2004-2005 Asian Tsunami when India showed prowess in spearheading the relief and rescue effort in South East Asia.
- However, the principal aim of the Quad was strategic, with a quest to manage the consequences for the regional balance of power in the Indo-Pacific due to the scale and scope of China's rise.
- **Q.6)** Which of the following pair (s) is/are **NOT** correctly matched?

Operation : Associated with

1. Operation Samudra Setu : Repatriation of Indian citizens

2. Operation Sanjeevani : Gulf of Oman3. Operation Sankalp : Maldives

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only

d) 1, 2 and 3

#### ANS: C

**Explanation:** Indian Navy has launched **Operation Samudra Setu** - meaning Sea Bridge, as a part of national effort to repatriate Indian citizens from overseas.

- Under **Operation Sanjeevani** an Indian Air Force (IAF) C-130J transport aircraft delivered 6.2 tons of essential medicines and hospital consumables to Maldives.
- Indian Navy launched **Operation Sankalp** in the Persian Gulf and the Gulf of Oman on Thursday to reassure Indian flagged vessels transiting through the area following the recent maritime incidents in the region.

# **Q.7)** Which of the following pair (s) is/are correctly matched?

Missile/Defense system : Origin Country

Spike Missile : Israel
 Tsirkon missile : Russia
 Maareech torpedo defense system : India
 Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

#### ANS: D

**Explanation:** Russian administration announced on Russian Navy would be equipped with hypersonic nuclear strike weapons and underwater nuclear drones.

• Tsirkon hypersonic cruise missile is designed to be carried on surface ships; it is under final phase of testing.

**Spike Missile**: Spike is an Israeli fire-and-forget anti-tank guided missile and anti-personnel missile.

• It was developed and designed by the Israeli company Rafael Advanced Defense Systems.

**Maareech torpedo defense system**: It is an Advanced Torpedo Defence System (ATDS) that is capable of being fired from all frontline ships.

- It has been designed and developed indigenously by DRDO.
- It is capable of detecting, locating and neutralizing incoming torpedoes.

# Q.8) Consider the following statements regarding the "project AHANA":

- 1. It is a flagship national programme, is working for a world where no child is born with HIV/Acquired Immunodeficiency Syndrome (AIDS).
- 2. It is implemented by National AIDS Control Organization (NACO) with the support of World Health Organization.

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

# ANS: A

**Explanation:** AHANA, a flagship national programme, is working for a world where no child is born with HIV/Acquired Immunodeficiency Syndrome (AIDS).

- It focuses on the elimination of mother-to-child transmission of HIV and is implemented by Plan India with support from The Global Fund.
- AHANA is being implemented in close coordination with the National AIDS Control Organisation (NACO) and National Health Mission (NHM) to influence policies and strategies in both the design and implementation phases of the National Health Mission Programme.
- AHANA aims to cover 55% of India"s annual pregnancy load and reach 16.5 million annual pregnancies across 357 districts in 14 states each year with HIV testing.
- AHANA also provides care and support to HIV exposed babies until they are 18 months old, along with facilitating postpartum care for the lactating mother.

# Q.9) Consider the following statements regarding the "National Biopharma Mission":

- 1. It is an Industry-Academia Collaborative Mission of Department of Biotechnology (DBT).
- 2. It is co-funded by the Asian Development Bank and is being implemented at Biotechnology Research Assistance Council (BIRAC).

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

#### ANS: A

**Explanation:** National Biopharma Mission is an Industry-Academia Collaborative Mission of Department of Biotechnology (DBT).

- It aims for accelerating discovery research to early development for Biopharmaceuticals approved by the Cabinet for a total cost US\$ 250 million.
- It is 50% co-funded by the World Bank is being implemented at Biotechnology Research Assistance Council (BIRAC).
- This program is dedicated to deliver affordable products to the nation with an aim to improve the health standards of India's population.

# Q.10) Consider the following statements regarding "INS Arihant":

- 1. It is India's first indigenously built nuclear submarine.
- 2. It is a ship submersible ballistic, nuclear (SSBN) submarine.
- 3. French designers assisted in building the Arihant.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 3 only

#### ANS: B

**Explanation:** INS Arihant is India's first nuclear-powered submarine.

- The ship submersible ballistic, nuclear (SSBN) submarine was launched at the Indian Navy's dockyard in Visakhapatnam, which is the headquarters of India's Eastern Naval Command.
- Indian Prime Minister Manmohan Singh, who has inaugurated the vessel into the Indian Navy, asserted that the indigenously built submarine would be used for self defence.
- The name Arihant derives from two words Ari meaning enemy and Hanth meaning destroy.

- Arihant, India's first indigenously built nuclear submarine, cost \$2.9bn.
- It was jointly developed by the Indian Navy, Bhabha Atomic Research Centre (BARC) and Defence Research and Development Organisation (DRDO) at the naval dockyard in Visakhapatnam.
- Russian designers assisted in building the vessel.



# Geography

- **Q.1)** With reference to the "Brahmaputra River", which of the following statements is/are correct?
- 1. It is known as the Cradle of Tibetan Civilization.
- 2. It rises from 27 kilometers long Zemu glacier.
- 3. It forms a Grand Canyon, flowing 1,000 km first Eastward, then takes a horse shoe bend westward near Namche Barwa.

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 2 and 3 only

#### ANS: C

**Explanation:** Brahmaputra River: Yarlung Tsangpo or Brahmaputra, the only male river that literally translates as 'Son of Brahma', is revered by Hindus, Jains and Buddhists.

- Buddhists believe that long ago the Chang Thang Plateau was a great lake.
- Yarlung Tsangpo, known as the 'Cradle of Tibetan Civilisation' rises in the Chemayungdung Glacier in the Kailash Range in Tibet.
- It descends rapidly from Tibet, forming a grand canyon, flowing 1,000 km first Eastward, then takes a horse shoe bend westward near Namche Barwa in Sadiya in the State of Arunachal Pradesh in the Pemakop region.
- Here the river is christened as Siang.
- Namche Barwa (7,782m.) and Giyala Peri (7,294m.) are two distinct peaks that mark the Eastern end of the Himalaya where Brahmaputra takes this unapproachable bend

The rich rainforests of this basin is home to many species of flora and fauna and is dotted with several settlements. It hosts National Parks like the Kaziranga and Manas.

Q.2) Which of the following pair (s) is/are correctly matched?

Religious/tourist place:River1. Badami:Ghatprabha2. Nanded:Waingangā3. Sabiramala:Pamba

Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3 only
- c) 3 only
- d) 2 only

#### ANS: C

**Explanation:** The Malaprabha River is a tributary of the Krishna River. The temples of Aihole, Pattadakal and Badami are on the banks of the Malaprabha.

Nanded is a city in Maharashtra state, India. Nanded is a major destination for Sikh pilgrims, because the 10th Sikh Guru (Guru Gobind Singh) made Nanded his permanent abode and passed his guruship to the Guru Granth Sahib before his death in 1708.

Nanded is located on the banks of Godavari River in central west India.

The Pamba River is the third longest river in the South Indian state of Kerala after Periyar and Bharathappuzha and the longest river in the erstwhile princely state of Travancore.

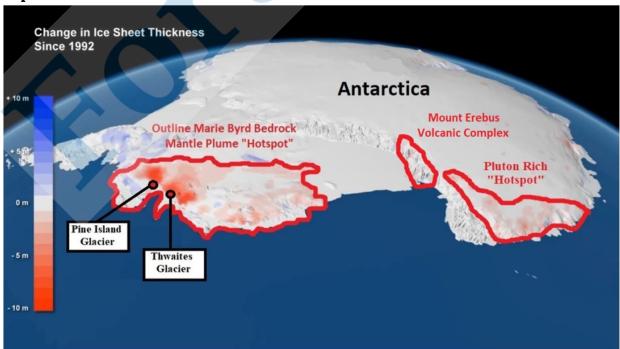
- Sabarimala temple dedicated to Lord Ayyappa is located on the banks of the river
- **Q.3)** The "Mount Etna" volcano is often seen in news is located in which of the following country?
- a) Germany
- b) Spain
- c) Switzerland
- d) Italy

#### ANS: D

**Explanation:** Etna is about 3,326 metres high and is the highest peak in Italy, South of the Alps.

- It is two-and-a-half times bigger than Vesuvius, which destroyed Pompeii.
- Mount Etna is one of the most active volcanoes and is in an almost constant state of activity.
- The fertile volcanic soil supports agriculture, vineyards and orchards spread across the lower slopes and the broad plains of Catania to the South.
- **Q.4)** The "**Pine Island and Thwaites Glaciers**" are often seen in news is located in which of the following?
- a) Green Land
- b) Arctic Ocean
- c) Antarctica
- d) Siberia

ANS: C Explanation:



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- **Q.5)** The "**Sonabhdra gold mines**" is often seen in news is located in which of the following state?
- a) Uttar Pradesh
- b) Karnataka
- c) Andhra Pradesh
- d) West Bengal

#### ANS: A

**Explanation:** Geographical Survey of India (GSI) provided estimates for the amount of gold that can be extracted from a site in Sonbhadra district of Uttar Pradesh.

- The gold resource is located near a village called Mahuli, around 70 km from Sonbhadra district, the land is mainly forest area and inhabited mostly by tribal and members of backward classes.
- The site is part of the Mahakoshal region that includes parts of UP, Madhya Pradesh and Jharkhand.

**Q.6)** "Rushikuliya River" is often seen in news is flows through which of the following state?

- a) West Bengal
- b) Karnataka
- c) Odisha
- d) Assam

#### ANS: C

**Explanation:** The Rushikulya River is one of the major rivers in the state of Odisha and covers entire catchment area in the districts of Kandhamal and Ganjam of Odisha.

- The Rushikulya originates at an elevation of about 1000 metres from Daringbadi hills of the Eastern Ghats range.
- The place from where the river originates, Daringbadi is called the 'Kashmir of Odisha'. The river meets the Bay of Bengal at Puruna Bandha in Ganjam.
- Its tributaries are the Baghua, the Dhanei, Badanadi etc. It has no delta as such at its mouth.
- Gahirmatha marine sanctuary and Rushikulya rookery coast in Ganjam district are main Olive Ridley Nesting sites in Odisha.

Q.7) Which of the following statements is/are **NOT** correct about "Reunion Island"?

- 1. It is a remote Indian Ocean Island located between Madagascar and Mauritius.
- 2. It is an overseas region of France.

Select the correct answer using the code given below:

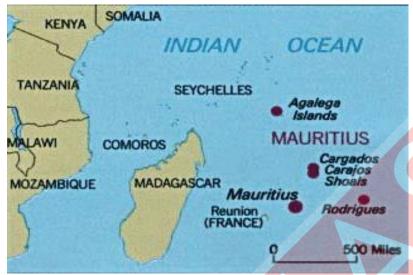
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

# ANS: D

**Explanation:** Reunion Island is a remote Indian Ocean island located between Madagascar and Mauritius. It is an overseas region of France.

- The island's capital is Saint-Denis which is home to one-fifth of the population.
- The Island is home to one of the world's most active volcanoes, the Piton de la Fournaise which is also a World Heritage site.

• India and France have conducted joint patrols from the Reunion Island for the first time.



Q.8) Which of the following state is **NOT** part of Krishna River Water dispute tribunal?

- a) Maharashtra
- b) Goa
- c) Karnataka
- d) Andhra Pradesh

#### ANS: B

**Explanation:** The Krishna is an east-flowing river that originates at Mahabaleshwar in Maharashtra.

- It is flowing through Maharashtra, Karnataka, Telangana and Andhra Pradesh before entering into the Bay of Bengal.
- A dispute over the sharing of Krishna waters has been ongoing for many decades.
- In 1969, the 'Krishna Water Disputes Tribunal' (KWDT) was set up under the Inter-State River Water Dispute Act, 1956.

#### **Q.9)** Consider the following statements regarding "Nallamala forest":

- 1. It is spread across Andhra Pradesh, Telangana and Chattisgarh states.
- 2. Chenchus, a Particularly Vulnerable Tribal Group (PVTG) lives in this forest. 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

#### ANS: B

**Explanation:** Nallamala forest is spread across five districts in Andhra Pradesh and two erstwhile districts in Telangana – Mahbubnagar and Nalgonda.

- The forest may soon face what is being dubbed as an environmental catastrophe by activists.
- The Forest Advisory Committee under the Ministry of Environment and Forests and Climate Change recently recommended an 'in-principle' approval to the Department of Atomic Energy for survey and exploration of uranium over 83 square kilometres in as many as four blocks.

- The exploration in the region has particularly triggered concerns about the Chenchus, a Particularly Vulnerable Tribal Group (PVTG) in Telangana, who already are witnessing a decline in their population.
- According to the 2011 Census, their population is 16,912. Most of them reside deep in the Nallamala forest.

# **Q.10)** Consider the following statements:

- 1. Insolation received by the earth is in long waves forms and heats up its surface.
- 2. Earth radiates its energy in short wave forms.

Which of the statements given above is/are **NOT** correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

#### ANS: C

**Explanation:** The insolation received by the earth is in short wave's forms and heats up its surface.

- The earth after being heated itself becomes a radiating body and it radiates energy to the atmosphere in long wave form.
- This energy heats up the atmosphere from below. This process is known as terrestrial radiation.
- The long wave radiation is absorbed by the atmospheric gases particularly by carbon dioxide and the other green house gases. Thus, the atmosphere is indirectly heated by the earth's radiation.
- The atmosphere in turn radiates and transmits heat to the space.
- Finally the amount of heat received from the sun is returned to space, thereby maintaining constant temperature at the earth's surface and in the atmosphere.



# Environment

- **Q.1)** With reference to the fundamental duty of Indian Constitution "to protect and improve the natural environment involves which of the following?
- 1. Forests
- 2. Lakes
- 3. Wetlands
- 4. Rivers
- 5. Wildlife

Select the correct answer using the code given below:

- a) 1, 2, 3 and 4 only
- b) 2, 3, 4 and 5 only
- c) 1, 2, 4 and 5 only
- d) 1, 2, 3, 4 and 5

#### ANS: C

**Explanation:** In the Constitution of India it is clearly stated that it is the duty of the state to 'protect and improve the environment and to safeguard the forests and wildlife of the country' (Article 48A – added through 42<sup>nd</sup> Constitutional Amendment Act, 1976).

- It imposes a duty on every citizen 'to protect and improve the natural environment including forests, lakes, rivers, and wildlife'.
- Reference to the environment has also been made in the Directive Principles of State Policy as well as the Fundamental Rights.
- The Department of Environment was established in India in 1980 to ensure a healthy environment for the country.
- This later became the Ministry of Environment and Forests in 1985.
- **Q.2)** Arrange the following acts with respect to their year of enactments in chronological order?
- 1. The Easement Act
- 2. The Public Liability Insurance Act
- 3. The Merchant Shipping Act
- 4. The Atomic Energy Act

Select the correct answer using the code given below:

- a) 1, 3, 4, 2
- b) 3, 1, 4, 2
- c) 1, 3, 2, 4
- d) 3, 1, 2, 4

#### ANS: A

**Explanation:** 1882 - The Easement Act allows private rights to use a resource that is, groundwater, by viewing it as an attachment to the land. It also states that all surface water belongs to the state and is a state property.

- 1970 The Merchant Shipping Act aims to deal with waste arising from ships along the coastal areas within a specified radius.
- 1982 The Atomic Energy Act deals with the radioactive waste.
- 1991 The Public Liability Insurance Act and Rules and Amendment, 1992 was drawn up to provide for public liability insurance for the purpose of providing

immediate relief to the persons affected by accident while handling any hazardous substance.

**Q.3)** The words "Chlorpyrifos, quinalphos, profenofos and malathion" are often seen in news is related to which of the following?

- a) Fruit ripening agents
- b) Food preservatives
- c) Organic chemicals used in cosmetics
- d) Organophosphate pesticides

#### ANS: D

**Explanation:** A study of fruits and vegetables grown in the Nilgiris has found that some of the produce might be harbouring high levels of pesticide, beyond what is considered advisable.

- While the Food Safety and Standards Authority of India (FSSAI) prescribes a
  maximum residual level (MRL) for some of the organophosphate pesticides used, it
  does not prescribe it for some other pesticides used in the cultivation of fruit and
  vegetables.
- It is known that organophosphate pesticides such as acephate, malathion, profenofos, chlorpyrifos and quinalphos are used in the cultivation of fruits and vegetables.
- The study measured the levels of these pesticides in 659 samples of fresh fruit and vegetables collected during the agricultural season of 2018-2019.
- Samples of 18 varieties of fruit and vegetable were collected from four cities of the Nilgiris Ooty, Gudalur, Kothagiri and Coonoor.
- Of these, the researchers did not detect pesticides in approximately 57% of the samples.
- Close to 34% had pesticides used below the MRLs and the remainder about 8% showed usage of pesticides above the MRLs.
- Among the varieties of vegetables and fruits studied, potato and carrot had the highest usage of these pesticides.

**Q.4)** The "Nalabana Bird Sanctuary" is often seen in news is located in which of the following state?

- a) West Bengal
- b) Odisha
- c) Andhra Pradesh
- d) Tamil Nadu

#### ANS: B

**Explanation:** The Nalabana bird sanctuary is located on Nalabana Island in the Chilika lagoon area in Odisha.

- The Nalabana Bird Sanctuary is the core area of Chilika.
- The large Nalabana Island (Forest of Reeds) covering about 16 sq km was declared a bird sanctuary in 1987.
- Chilika Lake gets heavy inflow of water from rivers Bhargavi and Daya.
- Chilika Lake is Asia's largest and world's second-largest lagoon after the New Caledonian barrier reef in New Caledonia.

- **Q.5)** The "abohar wildlife sanctuary" is seen in news is located in which of the following state?
- a) Punjab
- b) Rajasthan
- c) Maharashtra
- d) Karnataka

#### ANS: A

Explanation: Threatened by untamed dogs and stray cattle, the blackbuck, Punjab's State animal, is fighting for survival at the Abohar Wildlife Sanctuary in the Fazilka district.

- Abohar is an open wildlife sanctuary, spreading across private land in 13 villages.
- The blackbuck was notified as State animal of Punjab in 1989, and its presence in the State is confined only to the Abohar Wildlife Sanctuary, with its unique habitat of semi-arid plains featuring agricultural fields, intermittent fallow-barren land, scattered sand dunes and mounds, and ridges.
- In the sanctuary, where land in mainly owned by the local Bishnoi community, there were 3,273 blackbucks, according to the 2017 census conducted jointly by the Punjab Biodiversity Board (PBB) and the Forest and Wildlife Department, against 3,500 in 2011.
- **Q.6)** With reference to the "**Environment Protection Act, 1986**", the definition of "*Environment Pollutant*" includes which of the following?
- 1. Gaseous pollutants
- 2. Solid Pollutants
- 3. Liquid Pollutants

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

#### ANS: B

Explanation: According to the "Environment Protection Act, 1986", "Environmental pollutant" means any solid or gaseous substance present in such concentration as may be, or tend to be, injurious to environment;

- Q.7) The term "paraquat poisoning" is in news is related to which of the following?
- a) Insecticide
- b) Pesticide
- c) Herbicide
- d) Fungicide

### ANS: C

**Explanation:** The VIMSAR, a major public healthcare center for western Odisha and parts of Chhattisgarh and Jharkhand, has many deaths cases of farmers, since September 2017.

- The reason behind these deaths is the consumption of Paraquat a herbicide used in agricultural fields.
- Paraquat is a toxic chemical that is widely used as an herbicide (plant killer), primarily for weed and grass control.

# What are Pesticides?

- Insecticides- Chemical substances used to kill insects
- Herbicides- Chemical substances used to kill weeds
- Fungicides- Chemical substances used to kill fungus
- Rodenticides- Chemical substances used to kill Rodents

Q.8) Consider the following statements regarding "Wetlands International":

- 1. It is a global not-for-profit organization.
- 2. Luc Hoffmann Medal was presented by Wetlands International for Wetland Science and Conservation.

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

#### ANS: C

**Explanation:** Wetlands International is the global not-for-profit organization dedicated to the conservation and restoration of wetlands.

- Wetlands are the source of water that supports all forms of life.
- Despite our efforts to promote their importance, loss and damage to wetlands and their biodiversity continues.
- Our vision is a world where wetlands are treasured and nurtured for their beauty, the life they support and the resources they provide.
- The Wetlands International Luc Hoffmann Medal for Wetland Science and Conservation is awarded every triennium to honor Dr Luc Hoffmann, one of the inspirational and far-sighted founders of Wetlands International.

Q.9) "Buxa Tiger Reserve" is located in which of the following state?

- a) Odisha
- b) West Bengal
- c) Bihar
- d) Assam

# ANS: B

**Explanation:** Adorning the northeastern corner of West Bengal, bordering Bhutan and Assam, Buxa Tiger Reserve was set up at on 16th February 1983 and was then, the 15th tiger reserve of the country.

- The forest constituting the Buxa Tiger Reserve is the largest in the Dooars the alluvial floodplains of Northeast India.
- Spanning over a whopping 759 sq. km., this tiger reserve is irrigated by several rivers and their tributaries. It boasts of a diverse and breathtaking landscape.

- This reserve is home to 67 species of mammals, 36 species of reptiles and 230 species of unidentified avifauna and encompasses more than eight types of forests.
- The great diversity of mammals in this reserve makes it the second highest among all tiger reserves in India.

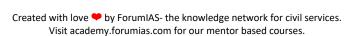
# Q.10) Consider the following statements regarding "National Adaptation Fund for Climate Change (NAFCC)":

- 1. It is a central sector scheme to support concrete adaptation activities which mitigate the adverse effects of climate change.
- 2. NABARD is the National Implementing Entity (NIE). 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

### ANS: C

**Explanation:** "The National Adaptation Fund for Climate Change (NAFCC) is a Central Sector Scheme which was set up in the year 2015-16.

- The overall aim of NAFCC is to support concrete adaptation activities which mitigate the adverse effects of climate change.
- The activities under this scheme are implemented in a project mode. The projects related to adaptation in sectors such as agriculture, animal husbandry, water, forestry, tourism etc. are eligible for funding under NAFCC.
- National Bank for Agriculture and Rural Development (NABARD) is the National Implementing Entity (NIE).
- The States/UTs are required to prepare the project proposal in consultation with NIE i.e. NABARD.
- The project proposals are required to be approved by the State Steering Committee on Climate Change to be eligible for consideration under NAFCC.
- It is the discretion of the State Government to engage any organization to assist in project preparation, as per their requirement".



# Map Based Questions

Q.1) Which of the following countries share maritime border with India in "Andaman Sea"?

- 1. Myanmar
- 2. Indonesia
- 3. Thailand
- 4. Malaysia

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

#### ANS: A

**Explanation:** India's Andaman and Nicobar Islands share a maritime border with Thailand and Indonesia in the Andaman Sea.

- Further, on 23-12-1986, there has been an agreement between the Myanmar and India on the Delimitation of the Maritime Boundary in the Andaman Sea, in the Coco Channel and in the Bay of Bengal.
- This established Burma-India Maritime Border in North Andaman Sea.

Thus the countries that share maritime border with India in Andaman Sea are:

- Indonesia
- Thailand
- Myanmar

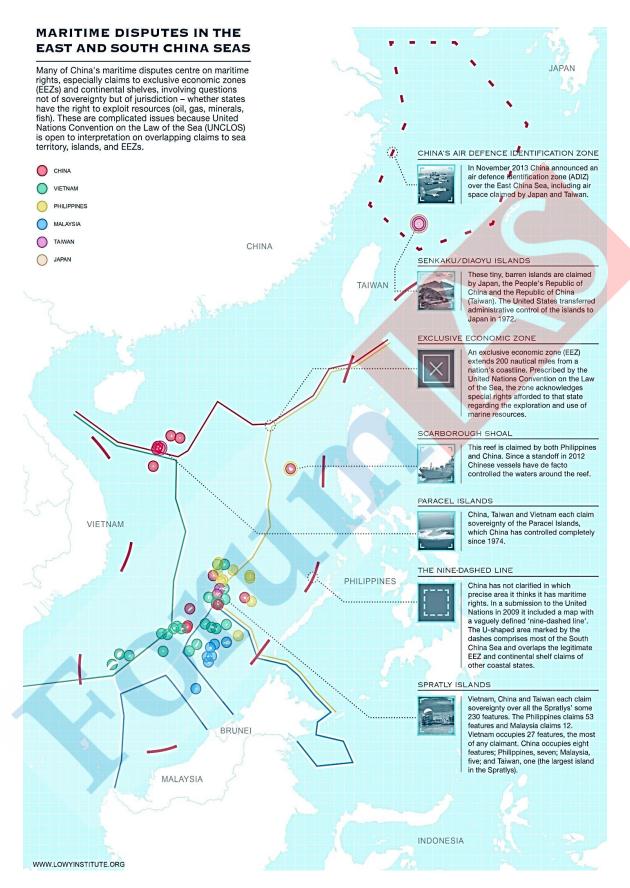
Q.2) Which of the following country is NOT sharing border with South China Sea?

- a) Japan
- b) Thailand
- c) Indonesia
- d) Cambodia

#### ANS: A

**Explanation:** Geographically, the South China Sea plays a significant role in the geopolitics of the Indo-Pacific.

- The South China Sea is bordered by Brunei, Cambodia, China, Indonesia, Malaysia, the Philippines Singapore, Taiwan, Thailand and Vietnam.
- Their recent economic growth has contributed to a large portion of the world's commercial merchant shipping passing through these waters.
- Japan and South Korea rely heavily on the South China Sea for their supply of fuels
  and raw materials and as an export route, although the availability of diversionary
  sea lanes bypassing the South China Sea provides non-littoral states with some
  flexibility in this regard.
- The South China Sea also contains rich, though unregulated and over-exploited fishing grounds and is reported to hold significant reserves of undiscovered oil and gas, which is an aggravating factor in maritime and territorial disputes.
- The major island and reef formations in the South China Sea are the Spratly Islands, Paracel Islands, Pratas, the Natuna Islands and Scarborough Shoal.



- **Q.3)** With reference to the "**Periplus of Erythraean Sea**" in present day which of the following sea represent Erythraean Sea?
- a) Arabian Sea
- b) Red Sea

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- c) Caspian Sea
- d) Black Sea

#### ANS: B

**Explanation:** Periplus of the Erythraean Sea, composed by an anonymous Greek sailor (c. first century CE).

"Periplus" is a Greek word meaning sailing around and "Erythraean" was the Greek name for the Red Sea.

# Q.4) Which of the following countries shares border with "Persian Gulf"?

- 1. Yemen
- 2. Oman
- 3. Iran
- 4. Kuwait
- 5. Bahrain

Select the correct answer using the code given below:

- a) 1, 2, 3 and 4 only
- b) 1, 3, 4 and 5 only
- c) 2, 3, 4 and 5 only
- d) 2, 3 and 5 only

#### ANS: C

**Explanation:** The Persian Gulf is an arm of the Arabian Sea between the mountainous coast of southwestern Iran and the rather flat coast of Arabian Peninsula.

- The gulf is approximately 1000 km long and 200 to 300 km wide, with an area of about 250,000 km<sup>2</sup>.
- The inland sea is connected to the Gulf of Oman in the east by the Strait of Hormuz.
- Eight countries border the Persian Gulf, Iraq, Kuwait, Saudi Arabia, Bahrain, Qatar, United Arab Emirates, Oman (Musandam exclave) and Iran.

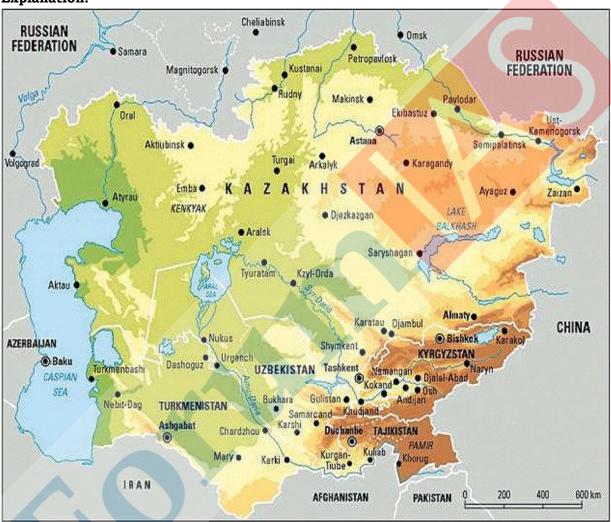


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**Q.5)** The "**Aral Sea**" is often seen in news due to its shrinking size is located in which of the following countries?

- a) Kazakhstan and Turkmenistan
- b) Turkmenistan and Uzbekistan
- c) Tajikistan and Uzbekistan
- d) Kazakhstan and Uzbekistan

ANS: D Explanation:



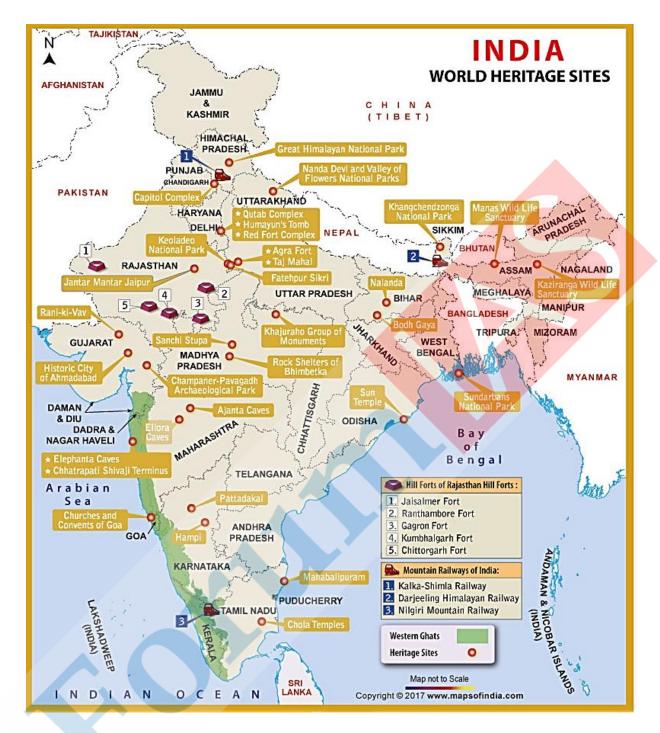
- **Q.6)** Arrange the following ancient sites in north to south direction:
- 1. Bhimbetka rock shelters
- 2. Sanchi stupa
- 3. Ellora caves
- 4. Ajanta caves

Select the correct answer using the code given below:

- a) 1, 2, 3, 4
- b) 2, 1, 3, 4
- c) 2, 1, 4, 3
- d) 1, 2, 4, 3

# ANS: C

### **Explanation:**



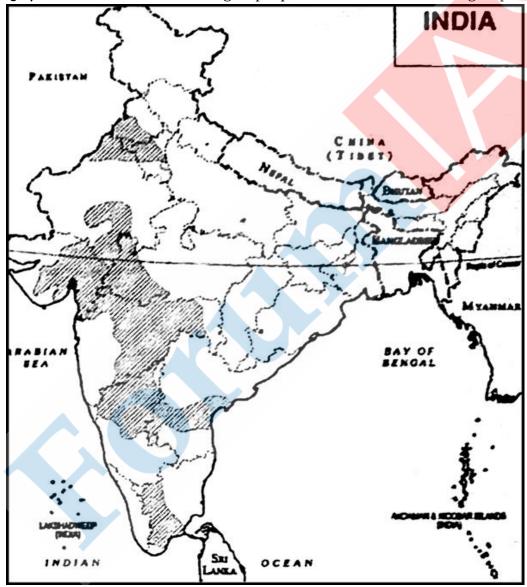
- Q.7) The famous "udayagiri and khandagiri caves" are located in which of the following state?
- a) Madhya Pradesh
- b) Odisha
- c) Uttar Pradesh
- d) Chhattisgarh

#### ANS: B

**Explanation:** Udayagiri and Khandagiri Caves are partly natural and partly artificial caves of archaeological, historical and religious importance near the city of Bhubaneswar in Khordha district of Orissa.

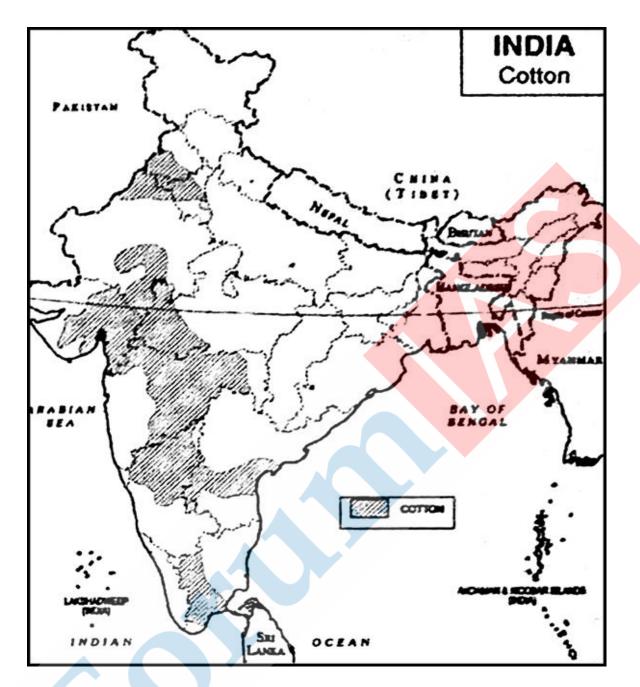
- The caves are situated on two hills Udayagiri and Khandagiri, mentioned as Kumari Parvat in Hathigumpha Inscription and face each other across the road.
- They have a number of finely and ornately carved caves. It is believed that most of these caves were carved out of huge residential blocks for the Jain monks, during the reign of King Kharavela.
- Udayagiri meaning Sunrise Hill, has 18 caves while Khandagiri has 15 caves.
- The caves of Udayagiri and Khandagiri, called Lena in the inscriptions, were dug out mostly during the reign of Kharavela for the abode of Jaina ascetics.
- The most important of this group is Ranigumpha in Udayagiri which is a double storeyed monastery.

Q.8) The shaded areas of following map represent which of the following crop?



- a) Ground nut
- b) Sugar cane
- c) Cotton
- d) Rice

ANS: C Explanation:



**Q.9)** Which of the following protected areas are both "biosphere reserves, tiger reserves and national parks"?

- 1. Manas
- 2. Sunderbans
- 3. Simlipal
- 4. Achanakmar Amarkantak
- 5. Nanda Devi

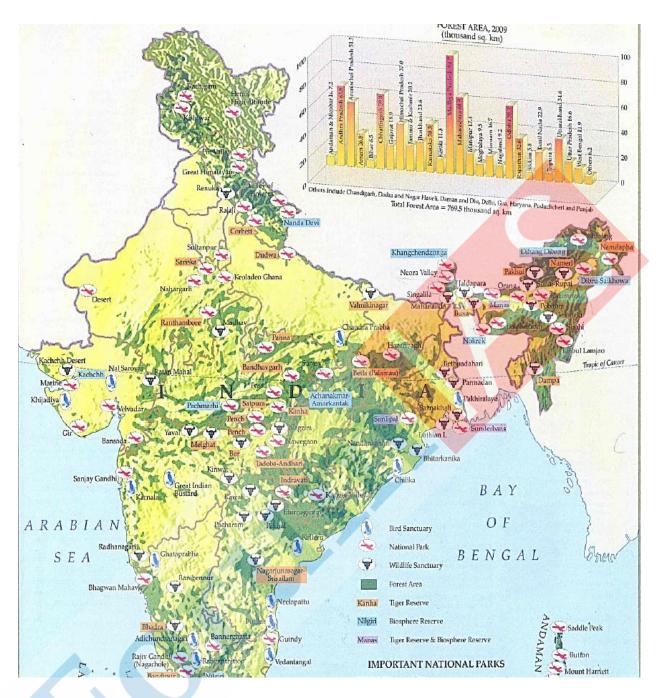
Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 1 and 2 only
- c) 1, 3 and 4 only
- d) 2, 3 and 5 only

# ANS: A Explanation:

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# Q.10) Consider the following statements regarding "Khasi Hills":

- 1. These are located in Manipur.
- 2. This area receives maximum rainfall from the southwest monsoon.
- 3. These hills are part of Great Himalayas.

Which of the statements given above is/are **NOT** correct?

- a) 1 and 2 only
- b) 2 only
- c) 1 and 3 only
- d) 2 and 3 only

#### ANS: C

**Explanation:** Shillong Plateau, highland region in eastern Meghalaya state, northeastern India.

- It is a rolling tableland and the highest portion of the hill mass that comprises most of Meghalaya.
- The plateau's western, northern, and southern escarpments are called the Garo, Khasi, and Jaintia hills, respectively.
- The Shillong Plateau is an outlier of the plateau of peninsular India and is composed primarily of ancient rocks.
- It contains reserves of coal and iron ore, and limestone is quarried.
- The highest point is Shillong Peak, at 6,433 feet (1,961 metres) located 3 miles (5 km) south of the city of Shillong.
- Khasi Hills is perhaps best known for Sohra (Cherrapunjee), geographically famous for being the wettest place on earth and also Shillong, one of the most beautiful hill stations in India.
- In fact the entire Khasi Hills region that forms the central part of Meghalaya is richly endowed with natural beauty.
- Everywhere you go, you will never cease to be mystified by the spectacular charm the state offers.
- So, Khasi hills are the part of plateau not the Himalayas. And they receive the rainfall from the southwest monsoon.

