

PRESTORMING™ 2020

MOCK TEST VII - EXPLANATION

1. **A town in India is considered important by the respective State Government but it does not yet fulfill all the conditions necessary for the constitution of a Municipality. Which one of the following local bodies will be established in that town?**

- (a) Town Area Committee
- (b) **Notified Area Committee**
- (c) Special Purpose Agency
- (d) Township

EXPLANATION:

A notified area committee is created for the administration of two types of areas—a fast developing town due to industrialisation, and a town which does not yet fulfil all the conditions necessary for the constitution of a municipality, but which otherwise is considered important by the state government. Since it is established by a notification in the government gazette, it is called as notified area committee.

Though it functions within the framework of the State Municipal Act, only those provisions of the act apply to it which are notified in the government gazette by which it is created. It may also be entrusted to exercise powers under any other act. Its powers are almost equivalent to those of a municipality. But unlike the municipality, it is an entirely nominated body, that is, all the members of a notified area committee including the chairman are nominated by the state government. Thus, it is neither an elected body nor a statutory body. **So, option (b) is correct.**

ADDITIONAL INFORMATION:

Town Area Committee

- A town area committee is set up for the administration of a small town. It is a semi-municipal authority and is entrusted with a limited number of civic functions like drainage, roads, street lighting, and conservancy. It is created by a separate act of a state legislature. Its composition, functions and other matters are governed by the act. It may be wholly elected or wholly nominated by the state government or partly elected and partly nominated.

Township

- This type of urban government is established by the large public enterprises to provide civic amenities to its staff and workers who live in the housing colonies built near the plant. The enterprise appoints a town administrator to look after the administration of the township. He is assisted by some engineers and other technical and non-technical staff. Thus, the township form of urban government has

no elected members. In fact, it is an extension of the bureaucratic structure of the enterprises.

Special Purpose Agency

- In addition to these seven area-based urban bodies (or multipurpose agencies), the states have set up certain agencies to undertake designated activities or specific functions that 'legitimately' belong to the domain of municipal corporations or municipalities or other local urban governments. In other words, these are function-based and not area-based. They are known as 'single purpose', 'uni-purpose' or 'special purpose' agencies or 'functional local bodies'. Some such bodies are:
 - Town improvement trusts.
 - Urban development authorities.
 - Water supply and sewerage boards.
 - Housing boards.
 - Pollution control boards.
 - Electricity supply boards.
 - City transport boards.
- These functional local bodies are established as statutory bodies by an act of state legislature or as departments by an executive resolution. They function as autonomous bodies and deal with the functions allotted to them independently of the local urban governments, that is, municipal corporations or municipalities and so forth. Thus, they are not subordinate agencies of the local municipal bodies.

SOURCE:

Indian polity by M Laxmikanth

2. Which of the following does not constitute 'Final Goods' produced in the economy?

- 1. Paint**
- 2. PVC billets**
- 3. Plywood**
- 4. Car Spare parts (Retail)**

Select the correct answer using the code given below.

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

EXPLANATION:

A final good or consumer good is a commodity that is used by the consumer to satisfy current wants or needs, rather than to produce another good. A microwave oven or a bicycle is a final good, whereas the parts purchased to manufacture it are intermediate goods. Here, PVC billets and Plywood are used to produce another good. Paint and Car Spare parts

(Retail) used by the consumer to satisfy current wants or needs, rather than to produce another good. **So, option (d) is correct.**

3. **In India, if a telecom operator wants to establish Telecom towers inside of any Forest Area, then that telecom operator needs to get permission of the Gram Sabha under which one of the following Acts?**

- (a) Forest Conservation Act, 1980
- (b) Environment Protection Act, 1986
- (c) Panchayats (Extension to the Scheduled Areas) Act, 1996
- (d) Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006**

EXPLANATION:

According to forest rights act 2006 Telecom towers can be built inside of any Forest Area by diverting the forest land if it is less than one hectare in each case; and (ii) the clearance of such developmental projects shall be subject to the condition that the same is recommended by the Gram Sabha. **So option (d) is correct**

ADDITIONAL INFORMATION:

the Central Government shall provide for diversion of forest land for the following facilities managed by the Government which involve felling of trees not exceeding seventy-five trees per hectare, namely:- (a) schools; (b) dispensary or hospital; (c) anganwadis; (d) fair price shops; (e) electric and telecommunication lines; (f) tanks and other minor water bodies; (g) drinking water supply and water pipelines; (h) water or rain water harvesting structures; (i) minor irrigation canals; (j) non-conventional source of energy; (k) skill up-gradation or vocational training centers; (l) roads; and (m) community centers: Provided that such diversion of forest land shall be allowed only if, - (i) the forest land to be diverted for the purposes mentioned in this subsection is less than one hectare in each case; and (ii) the clearance of such developmental projects shall be subject to the condition that the same is recommended by the Gram Sabha.

SOURCE:

<https://tribal.nic.in/FRA/data/FRARulesBook.pdf>

4. **In India, the Algal bloom hotspots have been recently identified by the Indian National Centre for Ocean Information Services (INCOIS) in which of the following regions?**

- 1. **North eastern Arabian Sea**
- 2. **Coastal waters off Kerala**
- 3. **Gulf of Mannar**
- 4. **Coastal waters off Gopalpur in Odisha**

Select the correct answer using the code given below.

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

EXPLANATION:

The increasing frequency of algal blooms is a major concern due to its ill effects on the fishery, marine life and water quality. INCOIS has developed a service for "Detection and Monitoring of Bloom in the Indian Seas". The four regions have been identified as bloom hotspots viz.

- North Eastern Arabian Sea
- coastal waters off Kerala
- Gulf of Mannar and
- Coastal waters of Gopalpur

So, option (d) is correct.

ADDITIONAL INFORMATION:

Algal Bloom Information Service (ABIS)

- The increasing frequency of algal blooms is a major concern due to its ill effects on fishery, marine life and water quality. INCOIS has developed a service for "Detection and Monitoring of Bloom in the Indian Seas".
- The target users are fishermen, marine fishery resource managers, researchers, ecologists and environmentalists.
- The service also complements INCOIS' marine fishing advisories i.e. Potential Fishing Zone advisories.
- INCOIS-ABIS will provide near-real time information on spatio-temporal occurrence and spread of phytoplankton blooms over the North Indian Ocean.
- Accordingly, relevant data retrieved from satellites i.e. Sea Surface Temperature , chlorophyll-a, Algal Bloom Index - chlorophyll, rolling chlorophyll anomaly, rolling sea surface temperature anomaly, phytoplankton class/species, phytoplankton size class and a composite image delineating bloom and non-bloom regions will be disseminated daily through ABIS.

SOURCE:

<https://pib.gov.in/newsite/PrintRelease.aspx?relid=199619>

5. Which one of the following site is considered as a precursor to the Indus Valley Civilization?

- (a) Shortughai
- (b) Mehrgarh**
- (c) Keezhadi
- (d) Rakhigarhi

6. Consider the following mountains ranges in India:

- 1. Tatakuti
- 2. Shahikangri
- 3. Batura Muztagh
- 4. Nanga Parbat

Which of the mountains given above are present in the Union Territory of Ladakh?

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

EXPLANATION:

Tatakooti Peak or Tatakuti is a mountain with a peak elevation of 4,725 metres (15,502 ft), in Poonch district of Jammu and Kashmir. So statement 1 is not correct.
ShahiKangri is located within Ladakh, the northernmost union territory in India. So statement 2 is correct.
The Batura Muztagh mountains are a sub-range of the Karakoram mountain range. They are located in Gojal valley in the Hunza district of the Gilgit-Baltistan province which is part of ladakh. So statement 3 is correct.
Nanga Parbat locally known as Diamer is the ninth highest mountain in the world at 8,126 metres (26,660 ft) above sea level. Located in the Diamer District of Gilgit-Baltistan region, which is part of ladakh. So statement 4 is correct.

7. Recently, the Government of India had directed the state governments to draft a policy for promoting the use of P-Sand as the next alternate building material. Which one of the following statement is *not* correct about “P-Sand”?

- (a) Presence of fine grain particles makes it to remain thin in nature
- (b) It is mainly used for concrete, brick, block and masonry works**
- (c) It is preferred both for the internal and external plastering works
- (d) It has zero wastage which in turn gives better compression strength

EXPLANATION:

Plastering sand will have fine grained particles. So statement 1 is correct.
Used for Wall plastering and brickwork purposes. For brick block and masonry work M-sand is used. So statement 2 is not correct.
It is preferred for both internal and external plastering works. So statement 3 is correct.
P sand zero wastage which gives better compression strength so only it is preferred for plastering work. So statement 4 is correct.

ADDITIONAL INFORMATION:

COMPARISON BETWEEN M-SAND, PLASTERING SAND AND RIVER SAND

	M-Sand	P-Sand	River Sand
Economy	No sieve loss; save labour, 100% material utilization	No sieve loss; save labour, 100% material utilization	up to 20% wastage contains silt, dirt and deleterious and un-uniformed material indirect cost lose 20%
Over Sized Materials	0%. Since it is artificially manufactured.	0%. Since it is artificially manufactured.	1 – 6% of minimum oversized materials can be expected.
Quality	Better quality control.	Better quality control.	No control over quality.
Marine Products	0%	0%	1 – 2% like sea shells, tree barks etc.
Eco-Friendly	It causes less damage to the environment as compared to river sand.	It causes less damage to the environment as compared to river sand.	Harmful to the environment. Eco imbalances, reduce groundwater level and rivers water gets dried up.
Adulteration	The probability of adulteration is less.	The probability of adulteration is less.	High probability of adulteration since filtered sand (a type of pre-washed sand which contains high silt contents) are mixed together.

			As a rule, supply shortage always brings adulterer products to the market.
Price	Price ranges from Rs.35 – Rs.45 per cubic feet.	Price ranges from Rs.50 – Rs.55 per cubic feet.	Price ranges from Rs 60 – 80 per cubic feet.
Water Content	Minimum Water content	Minimum Water content	More than 60% of Water Content resulting in excess weight
Applications	Highly recommended for RCC purposes and brick/ block works.	Used for Wall plastering and brickwork purposes.	Recommended for RCC, plastering and brick/ block work.

SOURCE:

<https://www.rbssn.com/p-sand.php>

8. Which one of the following writs can be issued by the Higher Courts when an appointment to a public office was made contrary to the statutory provisions?

- (a) Mandamus
- (b) Prohibition
- (c) Certiorari
- (d) **Quo-Warranto**

EXPLANATION:

In the literal sense, Quo-Warranto means 'by what authority or warrant'. It is issued by the court to enquire into the legality of claim of a person to a public office. Hence, it prevents illegal usurpation of public office by a person.

The writ can be issued only in case of a substantive public office of a permanent character created by a statute or by the Constitution. It cannot be issued in cases of ministerial office or private office.

Unlike the other four writs, this can be sought by any interested person and not necessarily by the aggrieved person. **So, option (d) is correct.**

SOURCE:

Indian polity by M Laxmikanth

9. **“Sharm El-Sheikh Declaration”, sometimes seen in the news recently, is related to the affairs of**

- (a) **Convention on Biological Diversity**
- (b) United Nations Environment Programme
- (c) United Nations Convention to Combat Desertification
- (d) International Union for Conservation of Nature

EXPLANATION:

Recently, Conference of the Parties (COP-14) to the Convention on Biological Diversity (CBD) was held, adopting Sharm El-Sheikh Declaration. **So option (a) is correct.**

ADDITIONAL INFORMATION:

Recently, Conference of the Parties (COP-14) to the Convention on Biological Diversity (CBD) was held, adopting Sharm El-Sheikh Declaration.

Highlight of COP-14

Adoption of Sharm El-Sheikh Declaration on Investing in Biodiversity for People and Planet.

- Governments commit to mainstream biodiversity through, integrating biodiversity values in legislative and policy frameworks, and development and finance plans.

Other Significant Highlight

- New Deal for Nature: It is an agreement on a comprehensive and participatory process to develop post-2020 global biodiversity framework to further achieve the 2050 Vision for Biodiversity.
- Launch of International Alliance of Nature and Culture to advance work on biological and cultural diversity in collaboration with the United Nations Educational, Scientific and Cultural Organization (UNESCO) and indigenous peoples and local communities.
- It called for UN General Assembly to designate 2021 to 2030 as the UN Decade of Ecosystem Restoration.

SOURCE:

<https://www.cbd.int/doc/c/b88b/15fd/ce60b9f3cccb30be25a7c42a/sharmelsheikh-declaration-egypt-en.pdf>

10. Which of the following will have direct effect with the intensity of rainfall over western coast of India?

- 1. High relief of the mountain ranges in the path of monsoon winds.**
- 2. Meteorological conditions along the off-shore of western part of India.**
- 3. Position of equatorial jet stream along the eastern coast of Africa.**

Select the correct answer using the code given below.

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

EXPLANATION:

High relief of the mountain ranges in the path of monsoon winds. This causes the monsoon winds to cool and bring the heavy rains on the leeward side of the mountain. **So, statement 1 is correct.**

Meteorological conditions along the off-shore of Western India. The low pressure and cyclones created in the off-shore of Western India can directly bring rainfall to the western coast. **So, statement 2 is correct.**

Position of equatorial jet stream along the eastern coast of Africa. The formation of Tropical Easterly Jet results in the reversal of upper air circulation patterns [High pressure switches to low pressure] and leads to the quick onset of monsoons. It directly affects the intensity of rainfall over west coast of India. **So, statement 3 is correct.**

11. Which one of the following is the causative factor for “structural inflation” in the economy?

- (a)* **Lack of adequate capital to support growth in demand**
- (b)* Lack of consumption power, thereby limiting growth
- (c)* Supply not able to keep up with demand because of lack of raw materials and technology to expand production
- (d)* Demand exceeds supply but the aspiration nature of the demand defeats the purpose

EXPLANATION:

Structural inflation is the one prevailing in most developing countries. The situation is due to the operation of the structural weakness (supply bottleneck, lack of infrastructure, etc.) existing in a developing economy. Lack of adequate supply responses or production to increase in demand is the cause of structural inflation.

Structural inflation not caused merely by the excess of demand over supply but built into an economy due to the government's monetary policy. Lack of capital to support growth in demand is one of the structural weakness. **So, option (a) is correct.**

12. **Stone was replaced by wood in the railings and the gateways of the Buddhist Stupas during the period of**

- (a) Sungas
- (b) Guptas
- (c) Haryankas
- (d) Satavahanas

13. **Suppose A, B and C stand in the elections for the President of India. From a total of 529 voters, A secured 264 first preferences, B secured 134 first preferences and C secured 131 first preferences. In this circumstance, which one of the following statements is correct?**

- (a) A becomes the President of India
- (b) **C is excluded and his/her second preference votes on the ballot paper are transferred to the first preference votes of A and B**
- (c) C is excluded and his/her votes are transferred to A
- (d) C is excluded and his/her votes are transferred to the candidate of his/her choice

EXPLANATION:

The President's election is held in accordance with the system of proportional representation by means of the single transferable vote and the voting is by secret ballot. This system ensures that the successful candidate is returned by the absolute majority of votes. A candidate, in order to be declared elected to the office of President, must secure a fixed quota of votes. The quota of votes is determined by dividing the total number of valid votes polled by the number of candidates to be elected (here only one candidate is to be elected as President) plus one and adding one to the quotient. The formula can be expressed as:

<p>Electoral quota =</p> $\frac{\text{Total number of valid votes polled}}{1 + 1 = (2)} + 1$
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So, option (a) is not correct.

In the first phase, the first preference votes are counted. In case a candidate secures the required quota in this phase, he is declared elected. Otherwise, the process of transfer of votes is set in motion. The ballots of the candidate securing the least number of first preference votes are cancelled and his second preference votes are transferred to the first preference votes of other candidates. This process continues till a candidate secures the required quota.

Hence, C is excluded and his second preference votes on the ballot paper are transferred to the first preference votes of A and B. **so, option (b) is correct.**

SOURCE:

Indian polity by M Laxmikanth

14. With reference to the Indian National Movement, which one of the following statements is *not* correct?

- (a) During the time of Indian Independence, the President of the Indian National Congress was JB Kripalani
- (b) The Constituent Assembly of India became fully sovereign only after the enactment of Indian Independence Act, 1947
- (c) **Immediately after the Independence in 1947, the Governor General of India was C Rajagopalachari**
- (d) The Constituent Assembly of India performed the functions of the Parliament till the first general elections in India

EXPLANATION:

Acharya Kripalani, was an Indian politician, noted particularly for holding the presidency of the Indian National Congress during the transfer of power in 1947

With the passing of Indian Independence Act, 1947, Constitution of India became fully Sovereign.

The Governor General of India was Lord Mountbatten immediately after the Indian Independence in 1947. **So, Option (c) is not correct.**

The Constituent Assembly of India performed the functions of the Parliament till the first general elections in India.

15. Co-operative federalism and competitive federalism are both complimentary to each other in holistic development of a nation because

- (a) **Cooperation among states will lead to collective gains and larger market scope, while competition among states will lead to better technology and growth in research and development**
- (b) Co-operative federalism will lead to a integrated development of a industrial ecosystem while competitive federalism will lead to improvement of quality and performance
- (c) Cooperative federalism leads to development of regional blocks that specialise in a particular industry while competitive federalism creates a group of competitors trying to outperform each other
- (d) Cooperative federalism develops integration between centre and state governments leading to pooling of resources among the centre and the state governments while competitive Federalism results in competition among the central and state government in implementation of social sector initiatives

EXPLANATION:

In Cooperative federalism the Centre and states share a horizontal relationship, where they “cooperate” in the larger public interest. It is an important tool to enable states’

participation in the formulation and implementation of national policies. Union and the states are constitutionally obliged to cooperate with each other on the matters specified in Schedule VII of the constitution.

In Competitive federalism the relationship between the Central and state governments is vertical and between state governments is horizontal. In a free-market economy, the endowments of states, available resource base and their comparative advantages all foster a spirit of competition. Increasing globalisation, however, increased the existing inequalities and imbalances between states. In Competitive federalism States need to compete among themselves and also with the Centre for benefits. States compete with each other to attract funds and investment, which facilitates efficiency in administration and enhances developmental activities. The investors prefer more developed states for investing their money. Union government devolves funds to the states on the basis of usage of previously allocated funds. Healthy competition strives to improve physical and social infrastructure within the state. **So, option (a) is correct.**

16. Which one of the following is the biggest unorganised sector of the Indian economy?

- (a) Street peddlers
- (b) **Agriculture**
- (c) Money lenders
- (d) Handicrafts

EXPLANATION:

More than 82 percent of the workforce in India is employed in the unorganised sector, as noted by the International Labour Union in its India Labour Market Update of 2016. This report serves as the main source of data for the workforce in the unorganised sector. Further, the Industry wise distribution of employment in the unorganised sector in India can be seen in the table below by Confederation of Indian Industry's (CII) report called "An Analysis of the Informal Labour Market in India" for 2011-2012

Sector	People working for unorganised sector in India(in million)
Mining	1.79
Manufacturing	52.49
Electricity and water supply	1.21
Construction	48.92
Trade, Hotel and Restaurant	50.17
Education	6.31
Health	2.68

so, option (b) is correct.

17. Recently, the researchers from the National Centre for Biological Sciences in Bengaluru had discovered the production and working of microRNA (miRNA). Consider the following statements about “miRNA”:

1. It is a kind of small non-coding double stranded RNA.
2. It is found in the micro as well as in the macro organisms.
3. It plays a significant role in improving the nutritional quality of food crops.
4. miRNA found with the cancer cell will enhance that cell's growth.

Which of the statements given above are correct?

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

EXPLANATION:

microRNA / miRNA. Small RNAs, typically 21 or 22 bp in length, that are produced by cleavage of double-stranded RNA arising from small hairpins within RNA that is mostly single stranded. **So statement 1 is not correct.**

A microRNA (abbreviated miRNA) is a small non-coding RNA molecule (containing about 22 nucleotides) found in plants, animals and some viruses, that functions in RNA silencing and post-transcriptional regulation of gene expression. **So statement 2 is correct.**

When present in large amounts, they result in dark purple grape, as in the Bangalore Blue variety, and absence correlates with lack of bright colour but high incidence of flavonols as in the Dilkhush grape variety.
Micro RNAs are regulators of gene expression, acting like switches.
They decide which protein should be made and how much in a given cell or tissue or an organism. **So statement 3 is correct.**

miRNA found with the cancer cells will not enhance the growth of cancer cells. **So statement 4 is not correct.**

ADDITIONAL INFORMATION:

MicroRNAs:

These are short non-coding Ribonucleic Acids (RNAs) containing 20–24 nucleotides that participate in virtually all biological pathways in animals.

- They play important roles in many cancers, in carcinogenesis, malignant transformation and metastasis.

- Carcinogenesis: It is the formation of cancer (uncontrolled development of cells), whereby normal cells are transformed into cancer cells. It is also called oncogenesis or tumorigenesis.
- Malignant transformation: It is the process by which cells acquire the properties of cancer. This may occur as a primary process in normal tissue, or secondarily as malignant degeneration of a previously existing benign tumour.
- Metastasis: The spread of cancer cells from the place where they first formed to another part of the body. In metastasis, cancer cells break away from the original (primary) tumour, travel through the blood or lymph system and form a new tumour in other organs or tissues of the body.

SOURCE:

<https://evolutionnews.org/2020/06/in-new-research-rna-takes-center-stage/>

18. Which of the following regions are conducive for Air Mass formation?

- 1. Antarctica**
- 2. Arctic ocean**
- 3. Sahara Desert**
- 4. Sub-tropical Atlantic Ocean**

Select the correct answer using the code given below.

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

EXPLANATION:

When the air remains over a homogenous area for a sufficiently longer time, it acquires the characteristics of the area. The homogenous regions can be the vast ocean surface or vast plains. The homogenous surfaces, over which air masses form, are called the source regions. An air mass acquires these attributes through heat and moisture exchanges with the surface.

Further, Low wind speeds let air remain stationary long enough to take on the features of the source region, such as heat or cold. When winds move air masses, they carry their weather conditions (heat or cold, dry or moist) from the source region to a new region. The following regions are conducive for Air Mass formation

- Antarctica
- Arctic ocean
- Sahara Desert

- Sub-tropical Atlantic Ocean

So, option (d) is correct.

ADDITIONAL INFORMATION:

- The air masses are classified according to the source regions. There are five major source regions:
 - Warm tropical and subtropical oceans.
 - The subtropical hot deserts
 - The relatively cold high latitude oceans
 - The very cold snow-covered continents in high latitudes
 - Permanently ice-covered continents in the Arctic and Antarctica

Accordingly, the following air masses are formed.

- Maritime tropical (mT): Maritime Tropical air mass results from the warm waters of the Gulf of Mexico and Gulf Stream. This air mass is characterized by hot, humid conditions.
- Continental tropical (cT): These are the hot, dry air masses which originate over regions like northern Mexico and the southwestern United States.
- Maritime polar (mP): Maritime Polar air masses have their source region over cold ocean currents or high latitude ocean waters. This air mass can produce widespread rain or snow, fog, drizzle, cloudy weather and long lasting light to moderate rain.
- Continental polar (cP): Continental Polar air masses are cold to cool and dry. Continental Polar air masses form over Canada and Siberia. These air masses bring cold air during the winter and cool, relatively clear, rather pleasant weather in the summer.
- Continental arctic (cA): This air mass is considered very cold. Their source of origin is Arctic Ocean, Siberia, Northern Canada, Southern Ocean.

19. Recently, Black Carbon levels spike at the Himalayan glaciers. In this context, consider the following statements about the “Black Carbon”:

- 1. They results from the incomplete combustion of fossil fuels and biomass.**
- 2. They are fine particles which absorb light and about a million times more energy than Carbon dioxide.**
- 3. They remain in the atmosphere for the longer duration than other natural Green House Gases.**

Which of the statements given above is/are correct?

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

EXPLANATION:

Black carbon is a potent climate-warming component of particulate matter formed by the incomplete combustion of fossil fuels, wood and other fuels. **So, statement 1 is correct.**

Black carbon are fine particles which absorb light and about a million times more energy than carbon dioxide. It is said to be the second largest contributor to climate change after CO₂. **So, statement 2 is correct.**

Black carbon is a particle which remains in the atmosphere only for days to weeks before it returns to earth with rain or snow. While CO₂ remains in the atmosphere for the longer duration. **So, statement 3 is not correct.**

ADDITIONAL INFORMATION:

- Black Carbon is formed as a by-product of incomplete combustion of fossil fuels, bio-fuels and biomass.
- It is the strongest absorbent of light amongst all the components of particulate matter.

Main Properties of Black Carbon

- It is directly emitted in the atmosphere as fine particles PM₅.
- It is highly effective in absorbing solar energy and can absorb million times more energy than Carbon Dioxide.
- It is formed of pure carbon in several linked forms.
- It is emitted in two forms-anthropogenic and soot. It is a major component of soot.
- Climatologically, it is highly active and is known as a climate forcing agent. It adds to global atmospheric heating by reducing the albedo which is the property of snow and ice to reflect sunlight.
- BC emissions are largely done from automobile sources like diesel engines and other vehicles. This comprises 52% of total BC emissions. Other sources include burning of biomass, residential processes, industrial heating etc.
- It was first identified in the Arctic haze aerosols and the Arctic snow.
- It comprises about 30% of the total carbon component of soils. It serves a major reservoir of nutrients for tropical soils.

SOURCE:

<https://www.thehindu.com/news/national/black-carbon-levels-spike-at-himalayan-glaciers/article30974301.ece>

20. Consider the following statements about the Small Farmers Agribusiness Consortium (SFAC):

- 1. Its objective is to promote agribusiness by encouraging institutional and private sector investments.**

2. SFAC is progressing towards establishing an ecosystem for Farmer Producer Organisations (FPOs) to make them sustainable and viable in the long run.
3. e-NAM portal is managed by Small Farmers' Agribusiness Consortium.

Which of the above given statements are correct?

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

EXPLANATION:

Small farmers agribusiness consortium objective is to promote agribusiness by encouraging institutional and private sector investments and linkages to ensure the empowerment of all farmers in the country. **So, statement 1 is correct.**

SFAC is progressing towards establishing an eco system for FPOs/FPCs to make them sustainable and viable in the long run. **So, statement 2 is correct.**

SFAC is also implementing the National Agriculture Market Electronic Trading (e-Nam) platform. The purpose is to provide for a single unified market for agricultural products with much higher price discovery for farmers. **So, statement 3 is correct.**

ADDITIONAL INFORMATION:

About Small Farmers Agribusiness Consortium (SFAC)

- Small Farmers Agribusiness Consortium (SFAC) is an Autonomous Society promoted by the Ministry of Agriculture, Cooperation and Farmers' Welfare, Government of India. It was registered under Societies Registration Act XXI of 1860 on 18th January, 1994
- The Society is governed by a Board of Management which is chaired, ex-officio, by Hon'ble Union Minister for Agriculture and Farmers Welfare as the President and the Secretary, Department of Agriculture, Cooperation and Farmers Welfare, Government of India, is the ex-officio Vice-President.
- Society is a pioneer in organising small and marginal farmers as Farmers Interest Groups, Farmers Producers Organisation and Farmers Producers Company for endowing them with bargaining power and economies of scale.
- It provides a platform for increased accessibility and cheaper availability of agricultural inputs to small and marginal farmers and in establishing forward and backward linkages in supply chain management.
- This initiative has triggered mobilization of farmers for aggregation across the country with ultimate aim of sustainable business model and augmented incomes.
- SFAC is an exclusive Society focused on increasing incomes of small and marginal farmers through aggregation and development of agribusiness.
- SFAC has pioneered the formation and growth of Farmer Producer Organizations/Farmer Producer Companies, which is now being implemented across

the length and breadth of the country. SFAC is progressing towards establishing an eco system for FPOs/FPCs to make them sustainable and viable in the long run.

- SFAC offers Schemes like Equity Grant and Credit Guarantee Fund Scheme to FPCs to improve availability of working capital and development of business activities.
- SFAC promotes development of small agribusiness through its VCA Scheme for value added processing and marketing linkages.
- SFAC is also implementing the National Agriculture Market Electronic Trading (e-Nam) platform. The purpose is to provide for a single unified market for agricultural products with much higher price discovery for farmers.

SOURCE:

<http://sfacindia.com/Aboutus.aspx>

21. In which of the following states in India, all the three capitals, such as Legislative, Executive and Judiciary, are located in the single place?

1. **Tamilnadu**
2. **Telangana**
3. **Uttar Pradesh**
4. **Madhya Pradesh**

Select the correct answer using the code given below.

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

EXPLANATION:

Allahabad is the judiciary capital of Uttar Pradesh. Judicial capital of Madhya Pradesh is Jabalpur. But for tamilnadu and telangana all three capitals are situated at Chennai and Hyderabad respectively. **So option (a) is correct.**

22. With reference to the Political organisation in the latter half of 19th century in India, consider the following statements about the “British India Association”:

1. **It is founded by merging Landholder’s Society and East India Association.**
2. **It sent a petition to the British Parliament for the separation of executive from the judicial functions.**
3. **It supported the East India Company during the Sepoy mutiny in 1857.**

Which of the statements given above is/are correct?

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

23. Which of the following countries does *not* border Lake Victoria?

- (a) Kenya
- (b) Uganda
- (c) Democratic republic of Congo**
- (d) Tanzania

EXPLANATION:



24. Consider the following statements about the “Financial Action Task Force” (FATF):

1. It is an intergovernmental organization that designs and promotes policies and standards to combat financial crime.
2. All the permanent member countries of the United Nations Security Council are members to this task force.
3. It reports annually to the United Nations Security Council regarding the efforts of combating terrorist financing.

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

EXPLANATION:

The Financial Action Task Force (FATF) is an intergovernmental organization that designs and promotes policies and standards to combat financial crime. **So, statement 1 is correct.**

The FATF currently comprises 37 member jurisdictions and 2 regional organisations, representing most major financial centres in all parts of the globe including all P5 members. **So, statement 2 is correct.**

The Financial Action Task Force (FATF) is an inter-governmental body established in 1989 on the initiative of the G7. It is a “policy-making body” which works to generate the necessary political will to bring about national legislative and regulatory reforms in various areas. It is not a part of the United Nations. **So, statement 3 is not correct.**

ADDITIONAL INFORMATION:

- The Financial Action Task Force (FATF) is the global money laundering and terrorist financing watchdog.
- The inter-governmental body sets international standards that aim to prevent these illegal activities and the harm they cause to society. As a policy-making body, the FATF works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas.
- With more than 200 countries and jurisdictions committed to implementing them. The FATF has developed the FATF Recommendations, or FATF Standards, which ensure a co-ordinated global response to prevent organised crime, corruption and terrorism.
- They help authorities go after the money of criminals dealing in illegal drugs, human trafficking and other crimes. The FATF also works to stop funding for weapons of mass destruction.
- The FATF reviews money laundering and terrorist financing techniques and continuously strengthens its standards to address new risks, such as the regulation of virtual assets, which have spread as cryptocurrencies gain popularity.
- The FATF monitors countries to ensure they implement the FATF Standards fully and effectively, and holds countries to account that do not comply.
- Black List: Countries known as Non-Cooperative Countries or Territories (NCCTs) are put in the blacklist. These countries support terror funding and money laundering activities. The FATF revises the blacklist regularly, adding or deleting entries.
- Grey List: Countries that are considered safe haven for supporting terror funding and money laundering are put in the FATF grey list. This inclusion serves as a warning to the country that it may enter the blacklist.

SOURCE:

<https://www.fatf-gafi.org/about/>

25. The Infrared Thermometers are used to detect the body temperature in case of fever which is one of the symptoms of COVID-19. Consider the following statements about the “Infrared Thermometer Guns”:

1. Longest wavelength of the spectrum region is preferred for its operation.
2. It works based on the principle of black body radiation.
3. Temperature is measured on the basis of indirect relationship between heat and electricity.
4. It works irrespective to the medium and climatic conditions.

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

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

EXPLANATION:

Longest wave length is not preferred. $.7\ \mu\text{m}$ to $20\ \mu\text{m}$ is preferred long wave length spectrum are preferred for radio waves. **So option 1 is not correct.**

Temperature is measured on the basis of direct relationship between heat and electricity. Heat is converted to electricity to measure the temperature. **So option 3 is not correct.**

The guns work best in areas free of electromagnetic equipment, radio frequencies, and high or low internal temperatures. **So option 4 is not correct.**

ADDITIONAL INFORMATION:

1. How do infrared thermometers work?
An infrared thermometer has a lens that helps you focus on the desired object while infrared rays are used to measure the amount of heat generated by the body or an object. So, these thermometers can even be used to measure the temperature of dangerous objects or edible products during the processing stage that cannot be touched.
2. What is the benefit of using an infrared thermometer?
Being a non-contact object, there is a lesser chance of passing on the infection or germs from one person to another. Unlike a contact thermometer, you do not have to wash these thermometers after every measurement making these devices suitable even for bulk or professional temperature monitoring. If you have a baby at home, you can measure the body temperature easily with an infrared thermometer even when your kid is sleeping.
3. Can an infrared thermometer measure the temperature of an object?
Yes, most of the infrared thermometers can be used for monitoring the temperature

of both bodies and objects. With a one-touch button, you can adjust the settings to get accurate readings whenever you are measuring the temperature.

4. What is the ideal distance for using an infrared thermometer? Usually, 6 inches is considered the ideal distance for using an infrared thermometer and correctly monitoring the temperature. However, the range can vary depending upon the thermometer you are using. So, read the instructions before you start measuring the temperature.

SOURCE:

<https://timesofindia.indiatimes.com/most-searched-products/health-and-fitness/health-care/infrared-thermometer-popular-ones-to-measure-body-temperature-in-a-non-contact-way/articleshow/71180035.cms>

26. India has signed non-legally binding agreement with ‘Convention on Conservation of Migratory Species’. It involves conservation and management for which of the following species?

- 1. Marine turtles**
- 2. Dugongs**
- 3. Great Indian Bustard**
- 4. Raptors**
- 5. Siberian cranes**

Select the correct answer using the code given below.

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

EXPLANATION:

India has signed a non legally binding Memorandum of Understanding (MoU) with CMS on the conservation and management of Siberian Cranes (1998), Marine Turtles (2007), Dugongs (2008) and Raptors (2016). **So option (c) is correct.**

ADDITIONAL INFORMATION:

Convention on the Conservation of Migratory Species of Wild Animals

- In order to protect the migratory species throughout their range countries, a Convention on Conservation of Migratory Species (CMS), has been in force since 1983, under the aegis of the United Nations Environment Programme.
- Also referred to as the Bonn Convention, it provides a global platform for the conservation and sustainable use of migratory animals and their habitats and brings together the States through which migratory animals pass, the Range States,

and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range.

- Under this convention, migratory species threatened with extinction are listed on Appendix I and Parties strive towards strictly protecting these animals, conserving or restoring the places where they live, mitigating obstacles to migration and controlling other factors that might endanger them.
- Migratory species that need conservation and management or would significantly benefit from international co-operation are listed in Appendix II of the Convention.
- India has signed a non legally binding Memorandum of Understanding (MoU) with CMS on the conservation and management of Siberian Cranes (1998), Marine Turtles (2007), Dugongs (2008) and Raptors (2016)

27. Consider the following statements about the “Fiscal Responsibility and Budget Management (FRBM) Act”:

- 1. It requires the Government of India to limit the fiscal deficit to 3% of the GDP by March 31, 2021.**
- 2. It requires limiting the debt of the central government to 40% of the GDP by the year 2024-25.**
- 3. It provides exemptions under special circumstances such as national security in fiscal deficit target.**
- 4. It is applicable both for the Central Government and the State Governments.**

Select the correct answer using the code given below.

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

EXPLANATION:

FRBM (Fiscal Responsibility and Budget Management) Act requires the government to limit the fiscal deficit to 3% of the GDP by March 31, 2021. So, statement 1 is correct.

It also requires the debt of the central government to 40% of the GDP by the year 2024-25. So, statement 2 is correct.

It provides exemptions under special circumstances such as national security, calamity, etc. in fiscal deficit target. So, statement 3 is correct.

It is applicable both for the Central Government and the State Governments. So, statement 4 is correct.
--

ADDITIONAL INFORMATION:

- The Fiscal Responsibility and Budget Management Act (FRBM Act), 2003, establishes financial discipline to reduce fiscal deficit.

- The FRBM Bill was introduced by the then finance minister, YashwantSinha, in 2000. The Bill, approved by the Union Cabinet in 2003, became effective from July 5, 2004.

What are the objectives of the FRBM Act?

- The FRBM Act aims to introduce transparency in India's fiscal management systems. The Act's long-term objective is for India to achieve fiscal stability and to give the Reserve Bank of India (RBI) flexibility to deal with inflation in India. The FRBM Act was enacted to introduce more equitable distribution of India's debt over the years.

Key features of the FRBM Act

- The FRBM Act made it mandatory for the government to place the following along with the Union Budget documents in Parliament annually:
 - Medium Term Fiscal Policy Statement
 - Macroeconomic Framework Statement
 - Fiscal Policy Strategy Statement
- The FRBM Act proposed that revenue deficit, fiscal deficit, tax revenue and the total outstanding liabilities be projected as a percentage of gross domestic product (GDP) in the medium-term fiscal policy statement.
- On grounds of national security, calamity, etc, the set targets of fiscal deficits and revenue could be exceeded.

SOURCE:

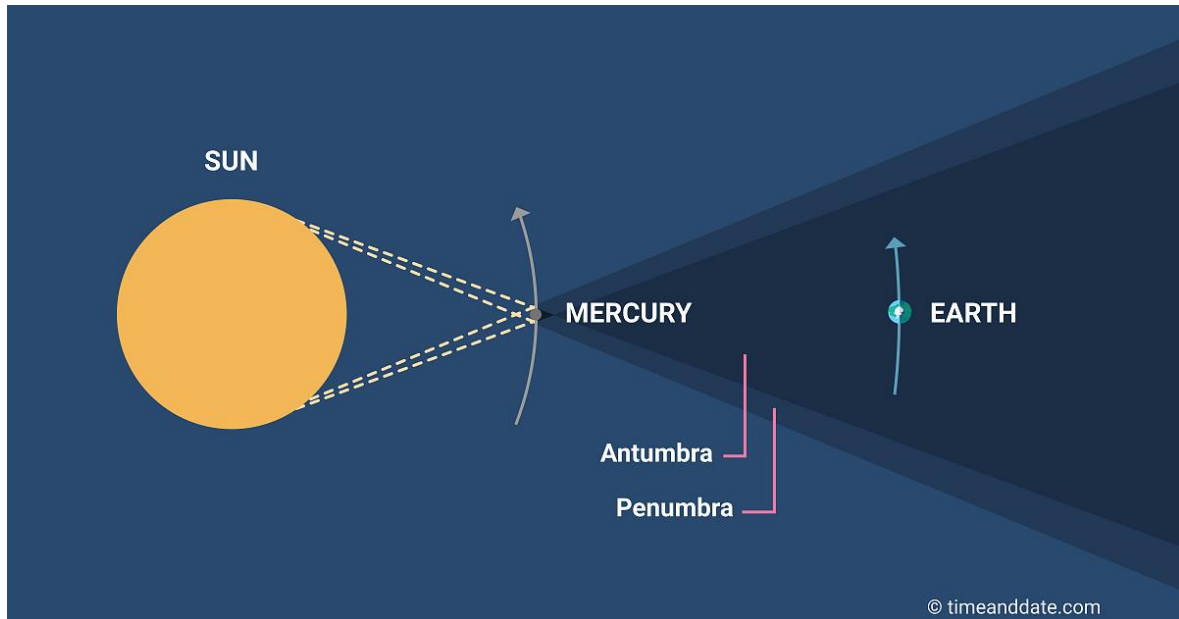
[http://www.arthapedia.in/index.php?title=Fiscal_Responsibility_and_Budget_Management_\(FRBM\)_Act](http://www.arthapedia.in/index.php?title=Fiscal_Responsibility_and_Budget_Management_(FRBM)_Act)

28. Which one of the following statements best describes the term “annular solar eclipse”, recently seen in the news?

- (a) It occurs when the Moon completely covers the Sun as it passes centrally across the solar disk
- (b) It happens when the Moon only partially covers the Sun as it passes centrally across the solar disk
- (c) **It occurs when the Moon appears smaller than the Sun as it passes centrally across the solar disk**
- (d) It occurs when the Moon appears larger than the Sun as it passes centrally across the solar disk

EXPLANATION:

An annular solar eclipse occurs when the Moon appears smaller than the Sun as it passes centrally across the solar disk and a bright ring, or annulus, of sunlight remains visible during the eclipse.



29. In line with Indian Prime Minister's call for "Atmanirbhar Bharat", the Indian Air Force had not only designed but also developed and manufactured an Airborne Rescue Pod for Isolated Transportation (ARPIT) for evacuating critical patients with infectious diseases during pandemic situation. Which of the following air vehicle is currently capable to incorporate ARPIT features with Indian Air Force?

1. Chinook
2. Dhruv
3. MIG-27
4. AN-32

Select the correct answer using the code given below.

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

EXPLANATION:

Currently Chinook and AN-32 is capable of incorporating ARPIT. **So option (b) is correct**

ADDITIONAL INFORMATION:

- Recently, the Indian Air Force (IAF) has designed, developed and inducted an Airborne Rescue Pod for Isolated Transportation i.e. ARPIT.
- This pod will be utilised for evacuation of critical patients with infectious diseases including Covid-19 from high altitude areas, isolated and remote places.
- Supporting the Atmanirbhar Bharat Initiative, only indigenous materials have been used to fabricate this pod.

- Requirement of an air evacuation system with facility to prevent spread of infectious aerosol from a Covid-19 patient during air travel was felt by IAF when the disease was declared as a pandemic.
- The pod has a transparent and durable cast perspex (transparent plastic that is sometimes used instead of glass) for enhanced patient visibility which is larger, higher and wider than the existing models.
- The isolation system caters for a suitable number of air exchanges, integration of medical monitoring instruments, and ventilation to an intubated patient.
- In addition, it generates high constant negative pressure in the isolation chamber for prevention of infection risk to aircrew, ground crew and health care workers involved in air transportation.

SOURCE:

<https://economictimes.indiatimes.com/news/defence/iafs-new-futuristic-pod-can-save-lives/airborne-rescue-pod-for-isolated-transportation/slideshow/76278902.cms>

30. With reference to the Indian Constitutional amendments, arrange the following subjects of amendments in the correct chronological order.

- 1. Reduction of voting age in the Elections**
- 2. Abolition of Privy Purse for Zamindars**
- 3. Changes in the text of Preamble**
- 4. Elementary education as Fundamental Right**

Select the correct answer using the code given below.

- (a) 1 – 2 – 3 – 4
(b) 3 – 2 – 1 – 4
(c) **2 – 3 – 1 – 4**
(d) 3 – 4 – 1 – 2

EXPLANATION:

Reduction of Age for voting rights in the Elections- (Sixty-first Amendment) Act, 1988
Abolition of Privy Purse for Zamindars- 26th Amendment in 1971.
Changes in the text of Preamble- 42 nd Amendment, 1976.
Elementary education as Fundamental Right-The Constitution (Eighty-sixth Amendment) Act, 2002.

31. Recently, the Reserve Bank of India had hinted that it has reduced the Repo rate around 250 basis points in the recent times. Which of the following is/are the possible benefit(s) of reduction in Repo rate in the Indian economy?

- 1. Increased availability of liquidity in the market.**
- 2. Higher interest rate on Small Savings and Fixed Deposits.**
- 3. Reduction in the Home Loan interest rate.**
- 4. Increase in Exports from India.**

Select the correct answer using the code given below.

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

EXPLANATION:

when the RBI needs to pump funds into the system, it lowers the repo rate. Consequently, businesses and industries find it cheaper to borrow money for different investment purposes. It also increases the overall supply of money in the economy. This ultimately boosts the growth rate of the economy. **So, statement 1 is correct.**

When the repo rate is lowered, it increases the money supply in the country. Hence, there will be a lower interest on Small Savings and Fixed Deposits. **So, statement 2 is not correct.**

When the repo rate is lowered, it increases the money supply in the country. Hence, there will be a reduction in the Home Loan interest. **So, statement 3 is correct.**

Reduction in repo rate does not have any direct impact on the increase in exports from India. **So, statement 4 is not correct.**

ADDITIONAL INFORMATION:

- Repo rate refers to the rate at which commercial banks borrow money by selling their securities to the Central bank of our country i.e Reserve Bank of India (RBI) to maintain liquidity, in case of shortage of funds or due to some statutory measures.
- It is one of the main tools of RBI to keep inflation under control.
- When you borrow money from the bank, the transaction attracts interest on the principal amount. This is referred to as the cost of credit. Similarly, banks also borrow money from RBI during a cash crunch on which they are required to pay interest to the Central Bank. This interest rate is called the repo rate.

32. With reference to the Indian National Movement, which of the following events took place in the year of 1920?

- 1. Launching of Tilak Swarajya Fund.**
- 2. Muhammadan Anglo-Oriental College became Aligarh Muslim University.**
- 3. Gandhi-Irwin talks.**
- 4. Visit of Prince of Wales into India.**

Select the correct answer using the code given below.

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

EXPLANATION:

Launching of TilakSwarajya Fund – 1921
Muhammadan Anglo-Oriental College became Aligarh Muslim University- On 9th September 1920 the Mohammedan Anglo-Oriental College became the Aligarh Muslim University. So statement 2 is correct.
Gandhi Irwin talks- 1931
Visit of Prince of Wales into India – 1875-6

33. Consider the following Biosphere Reserves in India:

1. **Cold Desert**
2. **Nanda devi**
3. **Nokrek**
4. **Panna**
5. **Achanakmar Amarkantak**
6. **Kachchh**

Which of the biosphere reserves given above are situated to the north of tropic of cancer?

- (a) 1 and 2 only
- (b) **1, 2, 3, 4 and 6 only**
- (c) 1, 3, 4 and 5 only
- (d) 1, 2, 3, 4, 5 and 6

EXPLANATION:

Ladakh is a cold desert in India. It lies in the Great Himalayas, on the eastern side of Jammu and Kashmir. It has the mighty Karakoram Range in the North and in the south, it is bound by the Zaskar mountains. It is situated to the north of tropic of cancer. So statement 1 is correct.
The Nanda Devi National Park or Nanda Devi Biosphere Reserve, established in 1982 is a national park situated around the peak of Nanda Devi (7816 m) in the state of Uttarakhand in northern India. It is situated to the north of tropic of cancer. So statement 2 is correct.
Nokrek National Park, the core area of Nokrek Biosphere Reserve, is a national park located approximately 2 km from Tura Peak in West Garo Hills district of Meghalaya, India. It is situated to the north of tropic of cancer. So statement 3 is correct.
Panna National Park is a national park located in Panna and Chhatarpur districts of Madhya Pradesh in India. It is situated to the little north of tropic of cancer. So statement 4 is correct.
The Achanakmar-Amarkantak Biosphere Reserve is a biosphere reserve in India that extends across the states of Madhya Pradesh and Chhattisgarh. It is situated to the south

of tropic of cancer. **So statement 5 is not correct.**

Kachchh Biosphere Reserve (KBR) is mainly composed of two major ecosystems called Great Rann of Kachchh (GRK) and Little Rann of Kachchh (LRK) covering area of 12,454 km², the reserve mainly it covers Kachchh Desert Sanctuary (in GRK) and Wild Ass Sanctuary (in LRK). It is situated to the north of tropic of cancer. **So statement 6 is correct.**

34. Consider the following statements about the recently introduced Bharat Stage-VI fuels in the Indian market:

- 1. Stage-VI petrol and diesel are derived by refining the crude oil.**
- 2. Stage-VI petrol is easier to refine than the Stage-VI diesel.**
- 3. Stage-VI diesel is denser than the petrol of the same stage.**
- 4. Calorific value of Stage-VI diesel is slightly lower than the petrol.**

Which of the statements given above is/are not correct?

- (a) 2 only**
(b) 3 and 4 only
(c) 1, 2 and 3 only
(d) None of the above

EXPLANATION:

Both the Stage-VI petrol and diesel are derived by refining the crude oil. **so option 1 is correct**

Stage-VI petrol is difficult to refine than the diesel. Reason is BS6 compliant petrol vehicles are required to be 25 percent cleaner by reducing NO_x (Nitrogen Oxide) numbers from 80mg/km to 60mg/km. **so option 2 is not correct**

Bs vi petrol density 720 to 775 Kg/m³ bs vi diesel density 820 to 860 Kg/m³. **so option 3 is correct**

The calorific value of diesel fuel is roughly 45.5 MJ/kg (megajoules per kilogram), slightly lower than petrol which is 45.8 MJ/kg. **so option 4 is correct**

35. With reference to the Ancient Indian history, consider the following statements about the “Sangam Age”:

- 1. During this period, the southern part of India was mostly reigned by the rulers of Kalabhra dynasty and Pallava dynasty.**
- 2. The Hero stone worship was very significant during this period.**
- 3. During this period, there were many women poets flourished and contributed to the Tamil literature.**

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

EXPLANATION:

The period roughly between the 3rd century B.C. and 3rd century A.D. in South India (the area lying to the south of river Krishna and Tungabhadra) is known as Sangam Period. It has been named after the Sangam academies held during that period that flourished under the royal patronage of the Pandya kings of Madurai and Chola Kings of Tanjavur.

So, Statement 1 is not correct.

The Hero Stone or Nadu Kal worship was significant in the Sangam period and was erected in memory of the bravery shown by the warriors in the battle. **So, Statement 2 is correct.**

There were women poets like Avvaiyar, Nachchellaiyar, and Kakkaipadiniyar who flourished and contributed to Tamil literature. **So, Statement 3 is correct.**

36. With reference to the categorization of industrial sectors based on the Pollution Index in India, consider the following statements

- 1. It has been developed by the Union Ministry of Environment, Forest and Climate Change.**
- 2. No Orange category of industries shall normally be permitted in the ecologically fragile area.**
- 3. Industrial Sectors under the White list does not require Environmental Clearance under Environment Protection Act.**

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

EXPLANATION:

A new categorization of industries based on their pollution load has been released by the Ministry of Environment, Forest and Climate Change (MoEFCC). **So statement 1 is correct.**

Industrial Sectors having Pollution Index score of 41 to 59 – Orange category. **So statement 2 is not correct.**

Industrial Sectors having Pollution Index score incl. & upto 20 - White category. It does not require Environmental Clearance under Environment Protection Act. **So statement 3 is correct.**

ADDITIONAL INFORMATION:

A new categorization of industries based on their pollution load has been released by the Ministry of Environment, Forest and Climate Change (MoEFCC).

The purpose of the categorization is to ensure that the industry is established in a manner which is consistent with the environmental objectives. The new criteria will prompt industrial sectors willing to adopt cleaner technologies, ultimately resulting in generation of fewer pollutants. Another feature of the new categorization system lies in facilitating self-assessment by industries as the subjectivity of earlier assessment has been eliminated. This 'Re-categorization' is a part of the efforts, policies and objective of the government to create a clean & transparent working environment in the country and promote the Ease of Doing Business.

Categories and criteria for categorisation

The Ministry of Environment, Forest and Climate Change (MoEFCC) has developed the criteria of categorization of industrial sectors based on the Pollution Index which is a function of the emissions (air pollutants), effluents (water pollutants), hazardous wastes generated and consumption of resources.

For this purpose the references are taken from the the Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003, Standards so far prescribed for various pollutants under Environment (Protection) Act, 1986 and Doon Valley Notification, 1989 issued by MoEFCC. The Pollution Index PI of any industrial sector is a number from 0 to 100 and the increasing value of PI denotes the increasing degree of pollution load from the industrial sector. The following are the criteria on 'Range of Pollution Index' for the purpose of categorization of industrial sectors.

- Industrial Sectors having Pollution Index score of 60 and above - Red category
- Industrial Sectors having Pollution Index score of 41 to 59 – Orange category
- Industrial Sectors having Pollution Index score of 21 to 40 – Green category
- Industrial Sectors having Pollution Index score incl.& upto 20 - White category

37. Which one of the following statement is *not* correct about the Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Ordinance, 2020?

- (a) The provisions of the Ordinance will override all state APMC laws
- (b) It provides for a farming agreement prior to the production or rearing of any farm produce
- (c) It will enable farmers to engage in direct marketing
- (d) **It does not have the provision of dispute resolution**

EXPLANATION:

The Ordinance provides a framework for the protection and empowerment of farmers with reference to the sale and purchase of farm products. The provisions of the Ordinance will override all state APMC laws. **So, option (a) is correct.**

The Ordinance provides for a farming agreement prior to the production or rearing of any farm produce, aimed at facilitating farmers in selling farm produces to sponsors. **So, option (b) is correct.**

It will also enable farmers to engage in direct marketing, thereby eliminating intermediaries and resulting in full realization of price. **So, option (c) is correct.**

The Ordinance requires a farming agreement to provide for a conciliation board as well as a conciliation process for settlement of disputes. The Board should have a fair and balanced representation of parties to the agreement. **So, option (d) is not correct.**

ADDITIONAL INFORMATION:

The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Ordinance, 2020:

- It provides a framework for the protection and empowerment of farmers with reference to the sale and purchase of farm products. The provisions of the Ordinance will override all state APMC laws.
- Farming agreement: The Ordinance provides for a farming agreement prior to the production or rearing of any farm produce, aimed at facilitating farmers in selling farm produces to sponsors.
- It also specifies the Duration of agreement.
- Pricing of farming produce: The price to be paid for the purchase of a farming produce will be mentioned in the agreement.
- Delivery and payment: The Ordinance specifies that the sponsor will be responsible for all preparations for the timely acceptance of deliveries and will take deliveries within the agreed time.
- Dispute Settlement: The Ordinance requires a farming agreement to provide for a conciliation board as well as a conciliation process for settlement of disputes.

SOURCE:

<https://pib.gov.in/PressReleasePage.aspx?PRID=1629750>

38. Consider the following Offices in India:

- I. Director of the Central Bureau of Investigation**
- II. Chairman of the Central Vigilance Commission**
- III. Chairman of the Central Information Commission**
- IV. Chairman of Lokpal**

Who among the following is/are common in the 'selection committee' to the Offices given above?

- 1. Prime Minister of India**
- 2. Chief Justice of India**
- 3. Leader of Opposition in Lok Sabha**

Select the correct answer using the code given below.

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

EXPLANATION:

The Appointment Committee of Director of the Central Bureau of Investigation consists:

- **Prime Minister** – Chairperson
- **Leader of Opposition of Lok Sabha** or the Leader of the single largest opposition party in the Lok Sabha, if the former is not present due to lack of mandated strength in the Lok Sabha - member
- Chief Justice of India or a Supreme Court Judge recommended by the Chief Justice – member

The Central Vigilance Commissioner and the Vigilance Commissioners shall be appointed by the President on recommendation of a Committee consisting of the **Prime Minister** (Chairperson), the Minister of home affairs (Member) and the **Leader of the Opposition in the House of the People**.

The Chief Information Commissioners shall be appointed by the President on the recommendation of a Committee consisting the **Prime Minister, Leader of Opposition in the Lok Sabha** and a Union Cabinet Minister as nominated by the Prime Minister.

Selection of chairperson and members of Lokpal through a selection committee consisting of the **Prime Minister**, Speaker of Lok Sabha, **leader of opposition in Lok Sabha**, Chief Justice of India or a sitting Supreme Court judge nominated by CJI. **So, option (c) is correct.**

39. Which one of the following statements is not correct about the “Deccan uprising” of 1875?

- (a) The movement also got support from the Poona Sarvajanik Sabha
- (b) The initial part of the movement was mainly social boycott in nature
- (c) The British refused to enact act to curtail the arrest of farmers who were unable to pay their debts**
- (d) The Deccan Riots Commission was set up to prepare a report to the British Parliament

40. “Caterpillar fungus” was seen in the news recently because

- (a) this invasive species is disrupting food chain in India
- (b) it was added to the IUCN red list**
- (c) it is possibly related to spread of corona viruses
- (d) it is crucial for neural pathway control research in insects

EXPLANATION:

The world's most expensive fungus, Caterpillar Fungus (*Ophiocordyceps sinensis*), has entered the IUCN Red List as Vulnerable. This fungus is highly valued in Traditional Chinese Medicine, where it has been used for over 2,000 years to treat many diseases including those related to the kidneys and lungs.

ADDITIONAL INFORMATION:

- Caterpillar fungus (*Ophiocordyceps Sinensis*) is a fungal parasite of larvae (caterpillars) that belongs to the ghost moth.
- It has been used in traditional Tibetan and Chinese medicine as a tonic, as a therapeutic medicine for lung, liver and kidney problems.
- In the recent times, it has widely traded as an aphrodisiac (stimulating sexual desire) and a powerful tonic, often called the 'Himalayan Viagra'.
- It is endemic to the Tibetan Plateau, including the adjoining high Himalaya (3,200-4,500 metres above sea level).
- It is locally known as Kira Jari (in India), Yartsagunbu (in Tibet) and Yarsagumba (in Nepal).
- It has been found in alpine meadows of Nanda Devi Biosphere Reserve, Askot Wildlife Sanctuary, Kanchendzonga Biosphere Reserve and Dehan-Debang Biosphere Reserve.
- The harvesting of fungus starts at the beginning of May and lasts till the end of June.
- It depends on factors such as weather, snow cover on the pasture and elevation of collection sites.
- TRAFFIC, the wildlife trade monitoring network reported that the illegal trading of it is also a significant issue



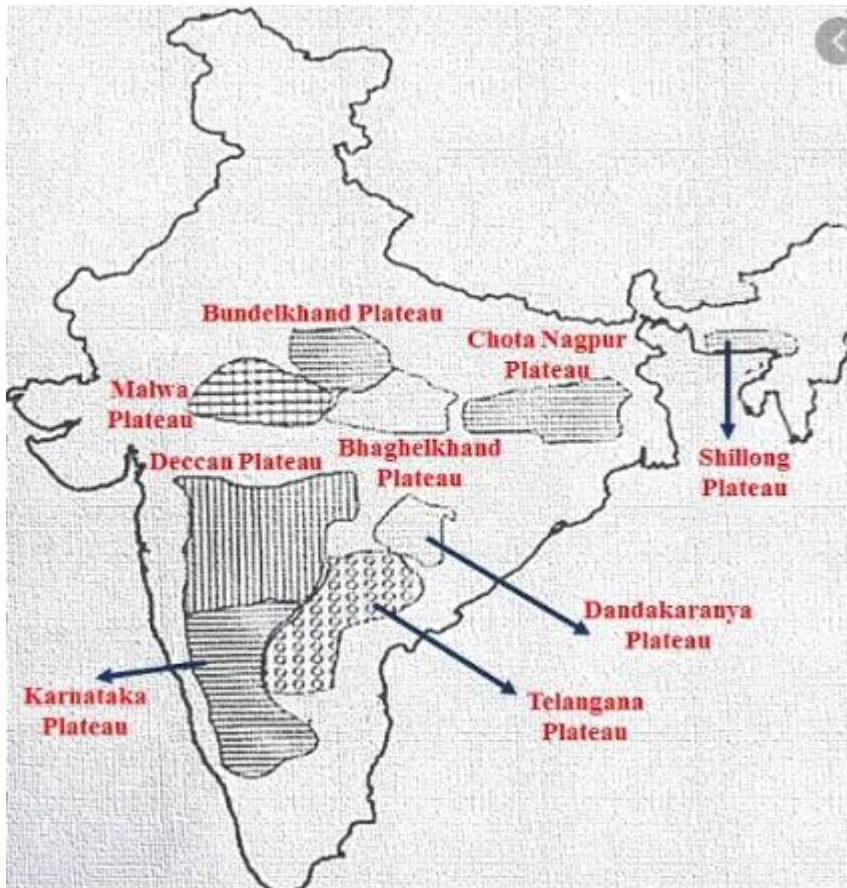
41. Arrange the following plateaus of the Central Indian Region from West to East in terms of their geographical locations.

1. Bundelkhand Plateau
2. Malwa Plateau
3. Mewar Plateau
4. Baghelkhand Plateau

Select the correct answer using the code given below.

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

EXPLANATION:



42. A shopkeeper, selling liquor, collects the price of the product which includes the tax and pays it to the Income Tax department. This way of collecting tax is best explained as

- (a) Tax detected at destination
- (b) Tax collected at destination
- (c) Tax detected at source
- (d) **Tax collected at source**

EXPLANATION:

Tax collected at source (TCS) is the tax payable by a seller which he collects from the buyer at the time of sale. Section 206C of the Income-tax act governs the goods on which the seller has to collect tax from the purchasers. Liquor of alcoholic nature, made for consumption by humans is taxed at a rate of 1% collected by the seller from the buyer. **So, option (d) is correct.**

ADDITIONAL INFORMATION:

Goods covered under TCS provisions and rates applicable to them

- When the below-mentioned goods are utilized for the purpose of manufacturing, processing, or producing things, the taxes are not payable. If the same goods are utilized for trading purposes then tax is payable. The tax payable is collected by the seller at the point of sale.
- The rate of TCS is different for goods specified under different categories :

Type of Goods Rate

- Liquor of alcoholic nature, made for consumption by humans 1%
- Timber wood under a forest leased 2.5%
- Tendu leaves 5%
- Timber wood by any other mode than forest leased 2.5%
- A forest produce other than Tendu leaves and timber 2.5%
- Scrap 1%
- Minerals like lignite, coal and iron ore 1%
- Bullion that exceeds over Rs. 2 lakhs/ Jewellery that exceeds over Rs. 5 lakhs 1%
- Purchase of Motor vehicle exceeding Rs. 10 Lakhs 1%
- Parking lot, Toll Plaza and Mining and Quarrying 2%

43. Recently, there is an ongoing research on Hydrogen Fuel cell for automotive vehicles. Which of the following is/are the benefit(s) of using hydrogen fuel in the automobile industries?

- 1. It produces much smaller quantities of Green House Gases.**
- 2. It emits only heat and water as a by-product.**
- 3. Handling of Hydrogen is safer as it is less explosive than the fossil fuels.**

Select the correct answer using the code given below.

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

EXPLANATION:

Hydrogen fuels produce much smaller quantities of greenhouse gases and none of the air pollutants that cause health problems. **So, statement 1 is correct.**

Fuel cells emit only heat and water as a byproduct and are far more energy-efficient than traditional combustion technologies. **So, statement 2 is correct.**

Handling of hydrogen is a safety concern because it is more explosive than petrol. **So, statement 3 is not correct.**

ADDITIONAL INFORMATION:

- Recently, the Supreme Court of India has directed the government to look into the feasibility of Fuel Cell Electric Vehicle (FCEV) to deal with air pollution.
- Fuel Cell Electric Vehicle (FCEV) engines are similar to the conventional internal combustion engines because they also rely on a constant supply of fuel (hydrogen) and oxygen.
- However, there are no moving parts in the fuel cell, so they are more efficient and reliable.
- Stationary fuel cells are the largest and most powerful fuel cells. These are being designed to provide a cleaner, reliable source of on-site power to hospitals, banks, airports and homes.
- The successful development of the technology would provide energy for transportation and electric power.
- Hydrogen fuel tanks are made from highly durable carbon fibre. Some FCEVs have a triple-layer hydrogen tank made of woven carbon fibre

Advantages

- FCEVs produce much smaller quantities of greenhouse gases and none of the air pollutants that cause health problems.
- Fuel cells emit only heat and water as a byproduct and are far more energy-efficient than traditional combustion technologies.
- FCEVs do not need to be plugged in for charging, like battery-powered EVs.
- There is a wide availability of resources for producing hydrogen.

Disadvantages

- The process of making hydrogen needs energy, often from fossil fuel sources, which raises questions over hydrogen's green credentials.
- Handling of hydrogen is a safety concern because it is more explosive than petrol.
- These vehicles are expensive and fuel dispensing pumps are scarce.

SOURCE:

<https://indianexpress.com/article/explained/hydrogen-cars-electric-vehicle-supreme-court-how-cars-can-run-on-hydrogen-6168796/>

44. Consider the following statements about the “National Broadband Mission” of India:

- 1. This mission is aimed at providing broadband access to all villages in the country by 2022.**
- 2. It also aims to provide the digital devices at the subsidised rate to the rural masses.**
- 3. This Mission will be fully funded by the Union Government alone with the assistance from the World Bank.**

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

EXPLANATION:

The National Broadband Mission is aimed at providing broadband access in all villages in the country by 2022. **So, statement 1 is correct.**

The mission will facilitate universal and equitable access to broadband services across the country, especially in rural and remote areas. It does not aim to provide the digital devices in the subsidised rate to the rural masses. **So, statement 2 is not correct.**

The mission will arrange 10% funds from the Universal Obligation Fund (USOF) and the remaining amount will be invested by industry and other stakeholders. **So, statement 3 is not correct.**

ADDITIONAL INFORMATION:

National Broadband Mission

- The government of India has launched National Broadband Mission (NBM) with an aim to provide an internet connection to all villages by 2022. The affiliated parties will invest Rs 7 lakh crore in the coming years. In rural areas, broadband access will be made available on a universal and equal basis.
- The government will ensure to lay down an additional optical fiber cable route of 3 million kilometers.
- Also, the density of the tower will also be increased from 0.42 to one tower per thousand population by 2024.
- The National Broadband Mission was first mentioned by Prime Minister Narendra Modi in his speech from Red Fort on 15 August this year.
- The fiberization of towers will increase to 70 percent, which is now 30 percent under this mission.
- The mission will arrange 10% funds from the Universal Obligation Fund (USOF) and the remaining amount will be invested by industry and other stakeholders.

SOURCE:

<https://economictimes.indiatimes.com/tech/internet/government-promises-broadband-access-in-all-villages-by-2022-launches-national-broadband-mission/articleshow/72847719.cms?from=mdr>

45. “Coral Triangle” is a marine area which includes waters of

- 1. Philippines**

- 2. Malaysia**
- 3. Indonesia**
- 4. Australia**
- 5. New Zealand**
- 6. Papua New Guinea**

Select the correct answer using the code given below.

- (a) 3, 4 and 6 only
(b) 1, 2 and 5 only
(c) 1, 2, 3 and 6 only
(d) 1, 2, 3, 4, 5 and 6

EXPLANATION:

The Coral Triangle is a roughly triangular area of the tropical marine waters of Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands and Timor-Leste that contain at least 500 species of reef-building corals in each ecoregion. **So option (c) is correct**

ADDITIONAL INFORMATION:

The Coral Triangle is a marine area located in the western Pacific Ocean. It includes the waters of Indonesia, Malaysia, the Philippines, Papua New Guinea, Timor Leste and Solomon Islands. Named for its staggering number of corals (nearly 600 different species of reef-building corals alone), the region nurtures six of the world's seven marine turtle species and more than 2000 species of reef fish. The Coral Triangle also supports large populations of commercially important tuna, fueling a multi-billion dollar global tuna industry. Over 120 million people live in the Coral Triangle and rely on its coral reefs for food, income and protection from storms.

Current levels and methods of harvesting fish and other resources are not sustainable and place this important marine area and its people in jeopardy. A changing climate threatens coastal communities and imperils fragile reefs. The challenge ahead is to develop sustainable solutions for the Coral Triangle's inhabitants and protect one of the most diverse marine habitats on Earth at the same time. Together with conservation partners and the governments of the region, WWF works to safeguard this important region for its people and the world.

SOURCE:

<https://www.worldwildlife.org/places/coral-triangle>

46. The Aim of Public Distribution System (PDS) in India is to

- (a) Effectively utilise and distribute the produce brought through the Minimum Support Price (MSP) Scheme
(b) **Provide food security through timely and affordable distribution of food grains**

- (c) Distribute food grains to Below Poverty Line (BPL) households at reasonable cost
- (d) Profitably sell the produce procured through MSP program

EXPLANATION:

The basic objective of the public distribution system in India is to provide essential consumer goods at cheap and subsidised prices to the consumers so as to insulate them from the impact of rising prices of these commodities and maintain the minimum nutritional status of our population. Here, it best relates to provide food security through timely and affordable distribution of food grains. **So, option (b) is correct.**

ADDITIONAL INFORMATION:

- The public distribution system means the system of management of food economy and distribution of food grains at affordable price. This scheme provides staple food grains, such as wheat rice, sugar & kerosene through a network of public distribution shops in the whole country.
- This scheme is run by ministry of consumer affairs, food and public distribution. Basic motive behind this scheme is to provide food the weaker section of the country at the cheaper/affordable rates.

Objectives and Expansion of PDS

- The basic objective of the public distribution system in India is to provide essential consumer goods at cheap and subsidised prices to the consumers so as to insulate them from the impact of rising prices of these commodities and maintain the minimum nutritional status of our population.
- To run this system, the government resorts to purchases a part of the marketable surplus with traders/millers and producers at procurement prices.
- The grain (mainly wheat and rice) thus procured, is used for distribution to the consumers through a network of ration fair price shops and/or for building up buffer stocks.
- In addition to food grains, PDS has also been used in India for the distribution of edible oils, sugar, coal, kerosene and cloth. The most important items covered under PDS in India have been rice, wheat, sugar and kerosene.
- PDS in India covers the whole population as no means of direct targeting are employed. The criterion is to issue ration cards to all those households that have proper registered residential addresses.

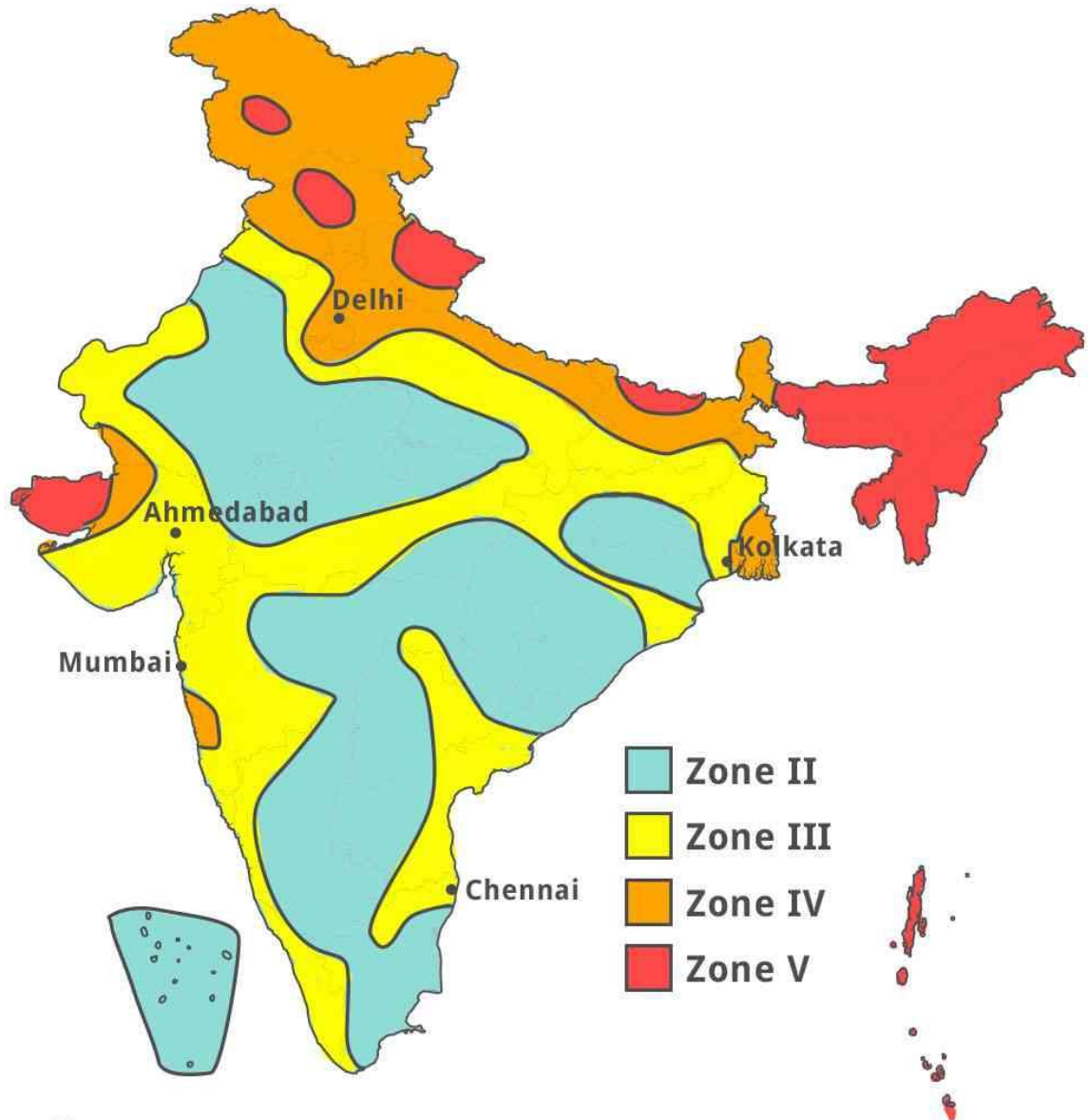
47. Which of the following cities falls under Seismic zone V in India?

- (a) Madurai
- (b) Chandigarh
- (c) Darjeeling
- (d) Imphal**



EXPLANATION:

Seismic zones in India



Scroll.in

Bureau of Indian Standards

48. As per the recent notification, the Election Commission of India allows the facility of “Postal ballot” to which of the following sections of the Indian population?

1. Members of the Armed Forces
2. Government Employees serving outside the Country
3. Government officers on poll duty
4. Voters under preventive detention
5. Senior citizens above the age of 65

Select the correct answer using the code given below.

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

EXPLANATION:

Postal voting in India is done only through the "*Electronically Transmitted Postal Ballot Papers (ETPB)*" system of Election Commission of India, where ballot papers are distributed to the registered eligible voters and they return the votes by post. When the counting of votes commences, these postal votes are counted first before the counting of votes from the electronic voting machines of all other voters. Only certain categories of people are eligible to register as postal voters. People working in the union armed forces and state police as well as their wives, and employees working for the Government of India who are officially posted abroad can register for the postal vote, these are also called *service voters*. Additionally, people in preventive detention, disabled and those above the age of 65 years old can use postal vote. Prisoners cannot vote at all.

SOURCE:

<https://www.thehindu.com/news/national/postal-ballots-for-voters-over-64-gives-ruling-party-an-edge-yeichury/article31948479.ece>

49. Consider the following statements about the "e-Commerce Guidelines for Consumer Protection, 2019" which was recently released by the Union Consumer Affairs Ministry:

- 1. An e-commerce entity may influence or may fix the price of the goods or services being sold in their platform.**
- 2. The guidelines on returns and refunds are designed to favour consumers.**
- 3. The e-commerce entities should not falsely represent themselves as consumers and post reviews about goods and services in their platform.**

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

EXPLANATION:

An e-commerce marketplace will not directly or indirectly influence the sale price of goods or services and shall maintain a level playing field. So, statement 1 is not correct.
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The e-commerce entities will also have to furnish details about sellers, including identity of their business, legal name, principal geographic address, name of website, the

products they sell, and how they can be contacted by customers. According to the draft, e-commerce companies will have to protect personal data and information of the customers.

They should effect all payments towards accepted refund requests of the customers within a period of maximum of 14 days. Hence, the guidelines on returns and refunds are designed to favour consumers. **So, statement 2 is correct.**

As per the draft rules, e-commerce players have been prohibited to falsely represent themselves as consumers and post reviews, misrepresent or exaggerate the quality or the features of goods and services. **So, statement 3 is correct.**

ADDITIONAL INFORMATION:

Draft e-commerce policy

- Draft National Electronic Commerce Policy will steer the approach of the government towards e-retailers, digital service providers and anyone else who conducts e-commerce in India.
- The draft recommendations were prepared by several stakeholders, including by the private sector and government officials from departments such as commerce, industry, IT and electronics.
- Common definition: A common definition of electronic commerce for the purposes of domestic policy-making and international negotiations would be adopted.
- Single legislation: It proposes a single legislation to address all aspects of digital economy and a single regulator for issues related to FDI implementation and consumer protection. It says legal fragmentation seen across various laws governing the ecommerce sector should be corrected.
- Data localization: It mandates localization of data in India, consistent with the Srikrishna Committee's draft data protection bill. The draft also talks about the government having access to data stored in India for national security and public policy objectives.
- Disclosures of Data: E-commerce entities would be required to disclose their data collection practices to consumers and share terms & conditions in a simplified format.
- On FDI: The draft policy proposes 49% FDI under the inventory model for Indian-owned and Indian-controlled firms to sell locally-produced goods on their online platforms.
- Registration of All Ecommerce Portals: All active e-commerce portals in India will have to register with e-Central Consumer Protection Authority (CCPA). CCPA shall act as a nodal agency for intra-government coordination, checking frauds within the industry, formulating regulations and more.
- Regulations on Discounts: On the matter of discounts, the draft policy suggests a 'sunset period' for every discount and offer, beyond which no e-commerce portal can be allowed to provide discounts. Bulk purchase of branded goods such as electronic

products, white goods, branded fashion by related party sellers, which lead to price distortions in a market place would be prohibited

- Centralize registration: It recommends Centralized registration instead of local registration of e commerce companies.
- Taxation of foreign-owned companies: Use principle of 'significant economic presence' as the basis for determining 'Permanent Establishment' for tax assessment. This would mean that the geography of an e-commerce platform would be less important than the scale of economic activity it has in India.
- For MSME: The policy suggests a public-private retail platform only for micro, small and medium enterprises (MSMEs). It allows MSME to follow inventory based models for selling locally produced goods through an online platform.
- More Power to The Founders: It seeks to give more control and more power to the founders of the e-commerce business, rather than the investors. As per some analysts, this has been done because most of the biggest e-commerce portals in India are funded by foreign investors.
- Separate wing in Enforcement Directorate: The draft suggests a separate wing be set up in the Enforcement Directorate to handle grievances related to foreign investment in ecommerce.
- Merger and Acquisitions: More scrutiny of mergers and acquisitions that may 'distort competition'. Competition Commission of India will examine entry barriers and anti-competitive practices. It assumes significance in the light of the recent acquisition of Flipkart by US retail major Wal-Mart.

SOURCE:

<https://economictimes.indiatimes.com/industry/services/retail/e-retailers-cannot-influence-prices-of-goods-on-platform-draft-guidelines/articleshow/72027643.cms?from=mdr>

<https://pib.gov.in/Pressreleaseshare.aspx?PRID=1594910>

50. Consider the following statements about the difference between National Parks and Wildlife Sanctuaries in India:

- 1. In case of National parks, human activity has been greatly restricted, while Human activities are allowed but to a limited extent in the wildlife sanctuaries.**
- 2. In case of National park, the boundary limit is defined and fixed but in the Wildlife sanctuaries, there is no clear-cut demarcation of boundary.**

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**

EXPLANATION:

No human activity is permitted inside the national park except for the ones permitted by the Chief Wildlife Warden of the state under the conditions given in CHAPTER IV, WPA 1972. Some restricted human activities are allowed inside the wild Sanctuary area details of which are given in CHAPTER IV, WPA 1972. **So, statement 1 is correct.**

The boundary of a wildlife sanctuary is not necessarily well defined. A rough area is marked out, and can be changed if required. However, the boundary of a National Park is clearly defined and fixed. **So, statement 2 is correct.**

ADDITIONAL INFORMATION:

- Wildlife Sanctuaries and National Parks are two of the most common forms of conservation and protection of wildlife. In India, there are 104 National Parks and 551 wildlife sanctuaries. While both serve the purpose of protection of wildlife, there are some key differences between the two.

Entry restrictions

- The biggest difference between these two Protected Areas is the restriction in entry. Wildlife Sanctuaries allow certain activities to be conducted within its premises, like foraging, collection of firewood from fringe areas, scientific research and if required, hunting. In National Park, no human activity of any kind can be pursued. Tourism is allowed strictly in the buffer zones and the core zone is completely off-limits except for trained personnel of the National Park.

Boundaries

- The boundary of a wildlife sanctuary is not necessarily well defined. A rough area is marked out, and can be changed if required. The change of the boundary requires a 1/2 majority of the legislative assembly of the state. However, the boundary of a National Park is clearly defined and fixed. This boundary cannot be changed, without a 2/3rd majority vote in the legislative assembly of the state within which the National Park is located.

Property ownership

- People are allowed to own “immovable” property like land within a wildlife sanctuary. Such persons are given permission to move to and from a wildlife sanctuary. Conversely, no private entity/person can own property within a National Park. Before an area is declared a National Park, the state government must allocate land to people elsewhere, if there is someone owning land within what is to become a national park.

Hunting

- The Chief Wildlife Warden can authorize the killing/hunting of an animal/group of animals under special circumstances within a wildlife sanctuary. This is not allowed in a National Park.

Size

- A wildlife sanctuary is generally larger than a national park, and can even contain multiple national parks within its premises.

51. Consider the following pairs:

Social reform institution Reformer

1. Dharma Sabha - Radhakant deb
2. Social Service League - Gopal Krishna
Gokhalae
3. Prarthana Samaj - Gopal Ganesh
Agarkar
4. Atmiya Sabha - Ishwar Chandra
Vidyasagar

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

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

EXPLANATION:

Dharma Sabha was formed in 1829 in Calcutta by Radhakanta Deb. The organization was established mainly to counter the ongoing social reform movements led by protagonists such as Raja Ram Mohun Roy and Henry Derozio. **So, pair 1 is correct.**

Narayan Malhar Joshi, a leading member of the Servants of India Society, founded the Social Service League in 1911. The objective of the movement was “to collect and study social facts and discuss social problems with a view to forming public opinion on questions of social service” and to secure for the masses a better quality of life and work. The League opened a number of day and night schools, libraries, dispensaries and started boys’ clubs and scouts corps. **So, pair 2 is not correct.**

Prarthana Samaj or "Prayer Society" in Sanskrit, was a movement for religious and social reform in Bombay, India, based on earlier reform movements. Prarthana Samaj was founded by the Dadoba Pandurang and his brother Atmaram Pandurang in 1867 when Keshub Chandra Sen visited Maharashtra, with an aim to make people believe in one God and worship only one God. **So, pair 3 is not correct.**

Atmiya Sabha was a philosophical discussion circle in India. The association was started by Ram Mohan Roy in 1815 in Kolkata (then Calcutta). They used to conduct debate and

discussion sessions on philosophical topics, and also used to promote free and collective thinking and social reform. **So, pair 4 is not correct.**

SOURCE:

A brief history of India by spectrum

52. According to the data published by the National Aeronautics and Space Administration (NASA), the aerosol levels in northern part of India are significantly below than the normal level. In this context, consider the following statements about the “aerosols”:

- 1. They can reduce the visibility in the air.**
- 2. They can impact air quality and human health.**
- 3. They serve as nuclei for cloud droplets or ice crystals in the ice clouds.**

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**

EXPLANATION:

Aerosols are minute particles suspended in the atmosphere. When these particles are sufficiently large, we notice their presence as they scatter and absorb sunlight. Their scattering of sunlight can reduce visibility (haze) and redden sunrises and sunsets. **So, statement 1 is correct.**

Manmade aerosols cause millions of deaths each year, the smallest particles are linked to the worst health effects. Indoor pollution also releases aerosols and can seriously harm our health. Hence, they can impact air quality and human health. **So, statement 2 is correct.**

Every cloud droplet needs an aerosol particle, called cloud condensation nucleus (CCN), for activation. Likewise ice crystals either form on a subset of aerosol particles that act as ice nuclei (IN) or form by homogeneous freezing of supercooled solution drops (liquid aerosols that took up water). **So, statement 3 is correct.**

ADDITIONAL INFORMATION:

Aerosols

- Aerosols are defined as a combination of liquid or solid particles suspended in a gaseous or liquid environment.

- In the atmosphere, these particles are mainly situated in the low layers of the atmosphere (< 1.5 km) since aerosol sources are located on the terrestrial surface.
- However, certain aerosols can still be found in the stratosphere, especially volcanic aerosols ejected into the high altitude layers.
- The origin of atmospheric aerosols is either natural or the result of anthropogenic activities.
- Natural sources of aerosols include sea salt generated from breaking waves, mineral dust blown from the surface by wind, and volcanoes.
- Anthropogenic aerosols include sulfate, nitrate, and carbonaceous aerosols, and are mainly from fossil fuel combustion sources.
- The atmospheric aerosols play a key role in the regional/global climate system through scattering and absorption of incoming solar radiation and by modifying the cloud structure.
- The transport of light-absorbing carbonaceous aerosols and dust from the polluted Indo-Gangetic Plain and desert areas over the Himalayas constitutes a major climatic issue due to severe impacts on atmospheric warming and glacier retreat.
- This heating over the Himalayas facilitates the “elevated-heat pump” that strengthens the temperature gradient between land and ocean and modifies the atmospheric circulation and the monsoon rainfall.

53. Consider the following statements about the Foreign Direct Investment (FDI) Policy in India:

- 1. Under the Government route, the foreign investor has to take prior approval of the respective Ministry.**
- 2. Through Automatic route, the investor has just to inform the RBI after the investment is made.**
- 3. An entity from the neighbouring country of India can invest only under the Government route.**

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**

EXPLANATION:

Under the government route, foreign investor has to take prior approval of respective ministry/ department. **So, statement 1 is correct.**

Through automatic approval route, the investor just has to inform the RBI after the investment is made. **So, statement 2 is correct.**

An entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the government route. **So, statement 3 is correct.**

ADDITIONAL INFORMATION:

- The government made its prior approval mandatory for foreign investments from countries that share land border with India to curb "opportunistic takeovers" of domestic firms following the Covid-19 pandemic, a move which will restrict FDI from China.
- Countries which shares land borders with India are China, Bangladesh, Pakistan, Bhutan, Nepal, Myanmar, and Afghanistan.
- An entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the government route.
- It said that the government has amended the FDI (foreign direct investment) policy to curb "opportunistic takeovers/acquisitions" of Indian companies on account of Covid-19 pandemic.
- It also said that government approval will be mandatory for any transfer of ownership of any existing or future FDI in a company in India, which results in change in beneficial ownership, falling under this new restriction.
- In the event of the transfer of ownership of any existing or future FDI in an entity in India, directly or indirectly, resulting in the beneficial ownership falling within the restriction or purview of the (amended policy), such subsequent change in beneficial ownership will also require government approval.
- A company can invest in India, subject to the FDI policy except in those sectors/activities which are prohibited.
- Further, a citizen of Pakistan or an entity incorporated in Pakistan can invest, only under the Government route, in sectors/activities other than defence, space, atomic energy and sectors/activities prohibited for foreign investment.

SOURCE:

<https://timesofindia.indiatimes.com/business/india-business/govt-approval-must-for-all-fdis-from-neighbouring-countries-including-china/articleshow/75220060.cms>

54. According to the 74th Amendment to the Indian Constitution, the Urban Local Government is controlled/regulated by which of the following ministries/offices?

- 1. Ministry of Housing and Urban Affairs**
- 2. Ministry of Home Affairs**
- 3. Ministry of Defence**
- 4. NITI Aayog**

Select the correct answer using the code given below.

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

EXPLANATION:

The system of urban government was constitutionalised through the 74th Constitutional Amendment Act of 1992. At the Central level, the subject of 'urban local government' is dealt with by the following three ministries:

- Ministry of Urban Development, created as a separate ministry in 1985
- Ministry of Defence in the case of cantonment boards
- Ministry of Home Affairs in the case of Union Territories

So, option (b) is correct.

ADDITIONAL INFORMATION:

- The term 'Urban Local Government' in India signifies the governance of an urban area by the people through their elected representatives.
- The jurisdiction of an urban local government is limited to a specific urban area which is demarcated for this purpose by the state government.
- There are eight types of urban local governments in India—municipal corporation, municipality, notified area committee, town area committee, cantonment board, township, port trust and special purpose agency.

SOURCE:

Indian polity by M Lakmikanth

55. With reference to the Medieval History of India, consider the following statements:

- 1. The invasion of Mahmud Ghajini immediately led into the foundation of the Delhi Sultanate.**
- 2. The invasion of Muhammad Ghori resulted in the collapse of Tughlaq dynasty at Delhi.**
- 3. Razia Sultan was the only female sultan during the Delhi Sultanate.**

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

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

EXPLANATION:

The raids did not establish or extend the permanent boundaries of their Islamic kingdoms. **So, Statement 1 is not correct.**

The Invasion of Ghori and Tughlaq dynasties took place in completely different timelines. **So, Statement 2 is not correct.**

Razia Sultan was the only female sultan during the Delhi Sultanate. **So, Statement 3 is correct.**

56. Which one of the following is the main objective of the series of Round Table Conferences organized in 1930-32 in London?

- (a) To discuss the constitutional reforms in India
- (b) To discuss about the demand for dominion status
- (c) To discuss about the effects of great depression on Indian economy
- (d) To discuss the demands of Indians participated in Civil Disobedience Movement

57. Consider the following statements about the “Forest Advisory Committee of India” which was frequently in the news:

1. It is a statutory body established under the Forest Conservation Act, 1980.
2. It is headed by the Prime Minister of India.
3. It considers questions on the diversion of forest land for non-forest uses.

Which of the statements given above is/are correct?

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

EXPLANATION:

Forest Advisory Committee of India is a statutory body which was constituted by the Forest (Conservation) Act 1980. **So, statement 1 is correct.**

It comes under the Ministry of Environment, Forests & Climate Change (MoEF&CC). **So, statement 2 is not correct.**

It considers questions on the diversion of forest land for non-forest uses such as mining, industrial projects, townships and advises the government on the issue of granting forest clearances. However, its role is advisory. **So, statement 3 is correct.**

ADDITIONAL INFORMATION:

- Recently, the Forest Advisory Committee (FAC) has approved the Green Credit Scheme. It will allow the Forest Department to outsource the responsibility of reforestation to non-government agencies, if implemented.
- Green Credit Scheme allows agencies (private companies, village forest communities etc.) to identify land and grow plantations. After three years, the land would be eligible to be considered as compensatory forest land if it meets the criteria set by the Forest Department. An industry needing forest land could then approach the agency and pay it for parcels of such forested land and this would then be

transferred to the Forest Department and be recorded as forest land. In simpler words, it will allow forests to be traded as a commodity.

- This scheme will encourage plantation by individuals outside the traditional forest area and will help in meeting international commitments such as Sustainable Development Goals and Nationally Determined Contributions.
- It will also help in solving various industries' complain that they find it hard to acquire appropriate non-forest land, which has to be contiguous to existing forest.
- The scheme will also supplement the Green India Mission, which is one of India's initiatives to combat climate change

SOURCE:

<https://www.thehindu.com/news/national/forest-committee-approves-scheme-to-trade-in-forests/article30527065.ece>

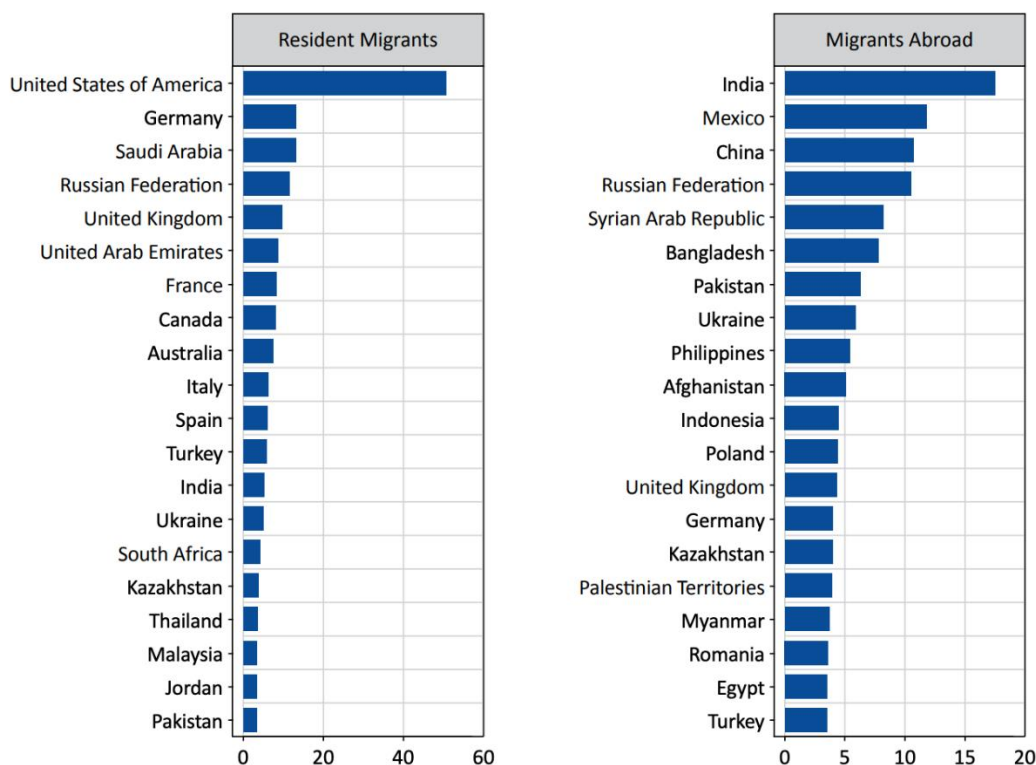
58. Arrange the following countries in the increasing order of origin of the international migrants.

- 1. Syria**
- 2. Russian federation**
- 3. India**

Select the correct answer using the code given below.

- (a) 2-3-1
(b) 1-3-2
(c) 3-2-1
(d) **1-2-3**

EXPLANATION:



Source: UN DESA, 2019a (accessed 18 September 2019).

59. With reference to the Parliament of India, which one of the following Parliamentary Committees scrutinizes and reports to the House whether the powers to make regulations, rules, sub-rules and by-laws conferred by the Constitution or delegated by the Parliament are being properly exercised by the Executive within the scope of such delegation?

- (a) Committee on Government Assurances
- (b) **Committee on Subordinate Legislation**
- (c) Rules Committee
- (d) Business Advisory Committee

EXPLANATION:

Committee on Government Assurances committee examines the assurances, promises and undertakings given by ministers from time to time on the floor of the House and reports on the extent to which they have been carried through. In the Lok Sabha, it consists of 15 members and in the Rajya Sabha, it consists of 10 members. It was constituted in 1953. **So, option (a) is not correct.**

Committee on Subordinate Legislation committee examines and reports to the House whether the powers to make regulations, rules, sub-rules and bye-laws delegated by the

Parliament or conferred by the Constitution to the Executive are being properly exercised by it. In both the Houses, the committee consists of 15 members. It was constituted in 1953.

So, option (b) is correct.

Rules Committee considers the matters of procedure and conduct of business in the House and recommends necessary amendments or additions to the rules of the House. The Lok Sabha committee consists of 15 members including the Speaker as its ex-officio chairman. In the Rajya Sabha, it consists of 16 members including the Chairman as its ex-officio chairman. **So, option (c) is not correct.**

Business Advisory Committee committee regulates the programme and time table of the House. It allocates time for the transaction of legislative and other business brought before the House by the government. The Lok Sabha committee consists of 15 members including the Speaker as its chairman. In the Rajya Sabha, it has 11 members including the Chairman as its ex-officio chairman. **So, option (d) is not correct.**

SOURCE:

Indian polity by M Laxmikanth

60. Which of the following objectives will ensure the Universal Financial Inclusion in India?

- 1. No frill savings accounts**
- 2. Accidental death insurance**
- 3. Pension coverage**
- 4. Access to livelihood and skill development**
- 5. Financial literacy and education**

Select the correct answer using the code given below.

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

EXPLANATION:

RBI identified six strategic objectives of a national strategy for financial inclusion:

- universal access to financial services
- providing basic bouquet of financial services (No frill savings accounts, Accidental death insurance, Pension coverage)
- access to livelihood and skill development
- financial literacy and education
- customer protection and grievance redressal
- effective coordination

So, option (d) is correct.

SOURCE:

<https://www.prsindia.org/policy/report-summaries/national-strategy-financial-inclusion>

61. The term “JOKER”, sometimes seen in the news, is a

- (a) vulnerability that affects the working mechanism of Wi-Fi routers
- (b) spyware that subscribes the victim to various premium service without their consent**
- (c) indigenous social networking app developed under Atmanirbhar project
- (d) end-to-end encryption based instant messaging app developed by C-DAC

EXPLANATION:

A new spyware has been making the rounds in Android apps on Google Play, infecting victims post-download to steal their SMS messages, contact lists and device information. In addition to stealing victims’ information, the malware also stealthily signs them up for premium service subscriptions that could quietly drain their wallets.
So option (b) is correct.

ADDITIONAL INFORMATION:

A new spyware has been making the rounds in Android apps on Google Play, infecting victims post-download to steal their SMS messages, contact lists and device information. In addition to stealing victims’ information, the malware also stealthily signs them up for premium service subscriptions that could quietly drain their wallets.

The malware, dubbed “the Joker” after one of its command-and-control (C2) domain names, has been seen over the past few weeks in 24 malicious apps – with a total of 472,000 installs – on the official Android app marketplace, warn researchers.

SOURCE:

<https://indianexpress.com/article/technology/tech-news-technology/google-play-store-removes-11-apps-infected-with-joker-malware-6499523/>

62. In the context of Indian Polity, the Judicial Principles such as “Doctrine of Severability” and “Doctrine of Eclipse” are applicable when

- (a) Parliament does not function properly
- (b) Directive Principles are not properly implemented**

(c) **Fundamental Rights are being violated**

(d) High courts do not adhere to guidelines issued by the Supreme Court

EXPLANATION:

The doctrine of severability means that when some particular provision of a statute offends or is against a constitutional limitation, but that provision is severable from the rest of the statute, only that offending provision will be declared void by the Court and not the entire statute.

The doctrine of eclipse means that an existing law inconsistent with a Fundamental Right, though becomes inoperative from the date of the commencement of the Constitution, is not dead altogether. It is overshadowed by the Fundamental Right and remain dormant, but is not dead.

63. With reference to the Indian freedom struggle, which among the following events happened earliest?

(a) Jawaharlal Nehru founded Republican party within the Congress

(b) The Independence of India League formed with Srinivasa Iyengar as its President

(c) Foundation of Hindustan Seva Dal by Narayan Subbarao Hardikar

(d) Formation of a committee to draft the Constitution under Motilal Nehru

64. Consider the following statements about the “Birdlife International”:

1. It is an outcome of the World Wide Fund for Nature (WWF) to conserve birds and their habitats.

2. It has identified and developed the Important Bird and Biodiversity Area (IBA) across the World.

3. It also identified and developed Bird flyway network across the World.

Which of the statements given above is/are correct?

(a) 1 only

(b) 1 and 3 only

(c) 1 and 2 only

(d) 2 and 3 only

EXPLANATION:

BirdLife International was founded in 1922 as the International Council for Bird Preservation by American ornithologists T. Gilbert Pearson and Jean Theodore Delacour under the name International Committee for Bird Protection. The group was renamed International Committee for Bird Preservation in 1928, International Council for Bird Preservation in 1960, and "BirdLife International" in 1993. **So, statement 1 is not correct.**

An Important Bird and Biodiversity Area (IBA) is an area identified using an

internationally agreed set of criteria as being globally important for the conservation of bird populations.

IBA was developed and sites are identified by BirdLife International. Currently there are over 12,000 IBAs worldwide. **So, statement 2 is correct.**

It also identified and developed Bird flyway network across the World. **So, statement 3 is correct.**

ADDITIONAL INFORMATION:

- BirdLife International is a global partnership of non-governmental organizations that strives to conserve birds and their habitats.
- BirdLife International's priorities include preventing extinction of bird species, identifying and safeguarding important sites for birds, maintaining and restoring key bird habitats, and empowering conservationists worldwide.
- It has a membership of more than 2.5 million people across 108 country partner organizations, including the Royal Society for the Protection of Birds, the Wild Bird Society of Japan, and the National Audubon Society.
- BirdLife International has identified 13,000 Important Bird and Biodiversity Areas and is the official International Union for Conservation of Nature's Red List authority for birds.
- As of 2015, BirdLife International has established that 1,375 bird species (13% of the total) are threatened with extinction (critically endangered, endangered or vulnerable).
- BirdLife International publishes a quarterly magazine, BirdLife – The Magazine, which contains recent news and authoritative articles about birds and their conservation

SOURCE:

<https://www.birdlife.org/worldwide/partnership/about-birdlife>

65. Consider the following statements about the Sovereign Gold Bond (SGB) scheme:

- 1. These are a kind of securities denominated in grams of gold issued by both Public Sector Banks and authorised Private Sector Banks operating in India.**
- 2. Its objective is to reduce the demand for physical gold and shift a part of the domestic savings of gold into financial savings.**
- 3. Investors are assured of the market value of gold at the time of maturity and periodical interest.**

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

EXPLANATION:

Under the Sovereign Gold Bond Scheme, the Reserve Bank of India will issue the bonds on behalf of the Government of India. The bonds will be sold at post offices and banks and issued in denomination of gram. **So, statement 1 is not correct.**

It's objective is to reduce the demand for physical gold and shift a part of the domestic savings of gold into financial savings. **So, statement 2 is correct.**

The investors will be compensated at a fixed rate of 2.50 percent per annum payable semi-annually on the nominal value. Investors are assured of the market value of gold at the time of maturity and periodical interest. **So, statement 3 is correct.**

ADDITIONAL INFORMATION:

Sovereign Gold Bond (SGB)

- SGB is a substitute for holding physical gold.
- The bonds are issued by the RBI on behalf of the government and are a bond denominated in gold.
- The government issues such bonds in tranches at a fixed price that investors can buy through banks, post offices and also in the secondary markets through the stock exchange platform.

Benefits of buying SGB

- These bonds are backed by a sovereign guarantee and can also be held in Demat form.
- Further, they are priced as per the underlying spot gold prices.
- Hence, investors who want to invest in gold can buy the bonds without worrying about the safekeeping of physical gold along with locker charges, making charges or purity issues.
- Plus, these bonds offer interest at the rate of 2.5% per annum on the principal investment amount.
- While the interests on the bonds are taxable, the capital gains at the time of redemption are exempt from tax.
- These bonds can also be used as collateral for availing loans from banks and NBFCs.

How are the bonds structured?

- SGB has a fixed tenure of eight years, though early redemption is allowed after the fifth year from issuance.
- Since the bonds are listed on the exchange, these can be transferred to other investors as well.
- The bonds are priced in rupees based on the simple average of the closing price of gold of 999 purity which published by the India Bullion and Jewellers Association.

- At the time of redemption, cash equivalent to the number of units multiplied by the then prevailing price would be credited to the bank account of the investor.

66. Since the severity of COVID-19 became to known as a pandemic, plenty of chemicals had started to play a significant role for promoting personal health and hygiene in our daily life. In this context, consider the following pairs:

<i>Chemicals</i>	<i>Applications</i>
1. Sodium Hypochlorite	- Disinfectant
2. Gammexane Powder	- Insecticide
3. Chloroxylenol liquid	- Antiseptic
4. Isopropyl alcohol	- Hand Sanitizer

Which of the pairs given above are *not* correctly matched?

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

EXPLANATION:

As a common bleaching agent, sodium hypochlorite is used for a variety of cleaning and disinfecting purposes. It releases chlorine, which is a disinfectant. **So statement 1 is correct.**

Lindane, also known as gamma-hexachlorocyclohexane (γ -HCH), gammexane, Gammallin and sometimes incorrectly called benzene hexachloride (BHC), is an organochlorine chemical and an isomer of hexachlorocyclohexane that has been used both as an agricultural insecticide and as a pharmaceutical treatment for lice and scabies. **So statement 2 is correct.**

Chloroxylenol, or para-chloro-meta-xylenol (PCMX), is an antiseptic and disinfectant agent used for skin disinfection and surgical instruments. It is found in antibacterial soaps, wound-cleansing applications, and household antiseptics. **So statement 3 is correct.**

Isopropyl alcohol is mixed with water for use as a rubbing-alcohol antiseptic. It is also used in aftershave lotions, hand lotions, and other cosmetics. In industry it is used as an inexpensive solvent for cosmetics, drugs, shellacs, and gums, as well as for denaturing ethanol (ethyl alcohol). **So statement 4 is correct.**

ADDITIONAL INFORMATION:

Sodium hypochlorite

- Sodium hypochlorite is commonly used as a bleaching agent, and also to sanitise swimming pools.

- Large quantities of chlorine can be harmful.
- The concentration of the chemical in the solution varies according to the purpose it is meant for.
- A normal household bleach usually is a 2-10% sodium hypochlorite solution.
- At a much lower 0.25-0.5%, this chemical is used to treat skin wounds like cuts or scrapes. An even weaker solution (0.05%) is sometimes used as a handwash.

67. Priority Sector Lending is specified by the RBI for giving a definite portion of the lending to some critical areas/sectors. This norm of Priority Sector Lending is applicable to which of the following institutions?

- 1. Public Sector Banks**
- 2. Foreign Banks operating in India**
- 3. Regional Rural Banks**
- 4. Private Sector Banks**

Select the correct answer using the code given below.

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

EXPLANATION:

Priority Sector Lending is specified by the RBI for giving a definite portion of the lending to some critical areas/sectors. This norm of Priority Sector Lending is applicable to all scheduled commercial banks in India. This includes

- Public Sector Banks
- Foreign Banks operating in India
- Regional Rural Banks
- Private Sector Banks

The RBI has also adopted a very nuanced approach regarding PSL norms for foreign banks. Foreign Banks (with 20 branches and above) have priority sector targets of 40% and sub-targets for key segments like agriculture and weaker Sections. Foreign banks (with less than 20 branches) are supposed to move to the total priority sector target of 40 percent by 2019-20. **So, option (d) is correct.**

ADDITIONAL INFORMATION:

RBI guidelines for PSL for scheduled commercial banks:

- 40% of the total net bank credit should go to priority sector advances.
- 10% of the priority sector advances or 10% of the total net bank credit, whichever is higher should go to weaker section.

- 18% of the total net bank credit should go to agricultural advances. Within the 18 target for agriculture, a target of 8 per cent of Adjusted Net Bank Credit (ANBC) or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher is prescribed for Small and Marginal Farmers, to be achieved in a phased manner.
- 7.5 of ANBC or Credit Equivalent Amount of Off-Balance Sheet Exposure, whichever is higher should go to Micro enterprises.

Priority Sector includes the following categories:

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

SOURCE:

<https://m.rbi.org.in/Scripts/FAQView.aspx?Id=87>

68. Consider the following pairs:

<i>Country</i>	<i>Bordering Sea</i>
1. New Zealand	- Tasman Sea
2. Iran	- Black Sea
3. Denmark	- Beaufort Sea

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

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



EXPLANATION:







69. The main advantage of the Parliamentary form of Government is that

- (a) the Executive and Legislature work independently
- (b) it provides for the continuity of public policy
- (c) **the Executive remains responsible to the Legislature**
- (d) the Head of the Government cannot be changed without an election

EXPLANATION:

The greatest advantage of the parliamentary system is that it ensures harmonious relationship and cooperation between the legislative and executive organs of the government. The executive is a part of the legislature and both are interdependent at work. As a result, there is less scope for disputes and conflicts between the two organs. **So, option (a) is not correct.**

The parliamentary system is not conducive for the formulation and implementation of long-

term policies. This is due to the uncertainty of the tenure of the government. A change in the ruling party is usually followed by changes in the policies of the government. **So, option (b) is not correct.**

By its very nature, the parliamentary system establishes a responsible government. The ministers are responsible to the Parliament for all their acts of omission and commission. The Parliament exercises control over the ministers through various devices like question hour, discussions, adjournment motion, no confidence motion, etc. **So, option (c) is correct.**

In case the ruling party loses its majority, the Head of the State can invite the opposition party to form the government. This means an alternative government can be formed without fresh elections. Hence, Dr Jennings says, 'the leader of the opposition is the alternative prime minister'. **So, option (d) is not correct.**

SOURCE:

Indian polity by M Laxmikanth

70. With reference to the Medieval Indian history, which one of the following statements is correct about "Pietra dura"?

- (a) It is method of tax collection introduced by Akbar
- (b) **It is a kind of decorative art introduced in the Mughal Architecture**
- (c) It is term indicating the method of branding of horses
- (d) It is a musical instrument invented by Amir Khusru

EXPLANATION:

Pietra Dura Technique

- It is a decorative art.
- Also called **Parchin Kari** in South Asia, is a term for the inlay technique of using cut, and fitted, highly polished colored stones to create images.
- The stonework, after the work is assembled loosely, is glued stone by stone to a substrate after having previously been "sliced and cut in different shape sections; and then assembled together so precisely that the contact between each section was practically invisible".
- Stability was achieved by grooving the undersides of the stones so that they interlocked, rather like a jigsaw puzzle, with everything held tautly in place by an encircling 'frame'.
- It first appeared in Rome in the 16th century.



71. Recently, India's Forex reserves crossed the 500\$ Billion mark for the first time. In this context, consider the following statements.

1. Now India's Forex reserves are the 5th largest in the World in the present level.
2. In India's Forex reserve composition, the Foreign Currency Assets are the biggest component followed by Gold.
3. The increased Forex reserves indicate that India's Current Account might be surplus.

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

EXPLANATION:

India's foreign exchange reserves, which currently stand at more than USD 500 billion, are the fifth largest in the world after China, Japan, Switzerland and Russia, as per the International Monetary Fund. **So, statement 1 is correct.**

India's total foreign exchange (Forex) reserves stand at around US\$ 513.254 billion on 10th July 2020, the highest ever, with foreign exchange assets (FCA) component at around US\$473.263 billion, gold reserves at around US\$34.017billion, SDRs (Special Drawing Rights with the IMF) of around US\$1.448 billion and around US\$4.526 billion reserve position, as per Reserve Bank of India's (RBI) weekly statistical supplement published on 10th July 2020. **So, statement 2 is correct.**

The increased Forex reserves indicate that India's Current Account might be surplus. **So, statement 3 is correct.**

ADDITIONAL INFORMATION:

- India has large foreign-exchange reserves; holdings of cash, bank deposits, bonds, and other financial assets denominated in currencies other than India's national currency, the Indian rupee.
- The reserves are managed by the Reserve Bank of India for the Indian government and the main component is foreign currency assets.
- Foreign-exchange reserves act as the first line of defense for India in case of economic slowdown, but acquisition of reserves has its own costs.
- Foreign exchange reserves facilitate external trade and payment and promote orderly development and maintenance of foreign exchange market in India.
- The FCAs also include investments in US Treasury bonds, bonds of other selected governments and deposits with foreign central and commercial banks
- Reserve Bank of India Act and the Foreign Exchange Management Act, 1999 set the legal provisions for governing the foreign exchange reserves. Reserve Bank of India accumulates foreign currency reserves by purchasing from authorized dealers in open market operations. Foreign exchange reserves of India act as a cushion against rupee volatility once global interest rates start rising.
- The Foreign exchange reserves of India consists of below four categories;
 - Foreign Currency Assets
 - Gold
 - Special Drawing Rights (SDRs)
 - Reserve Tranche Position

SOURCE:

<https://timesofindia.indiatimes.com/business/india-business/worlds-fifth-largest-reserves-buffer-gives-india-some-comfort/articleshow/76765303.cms>

72. Which of the following is/are the objective(s) of “Green India Mission”?

- 1. To increase green cover to the extent of 5 million hectares.**
- 2. To increase forest-based livelihood income for about 3 million households.**
- 3. Ecological restoration of all the urban lakes in India by 2020.**

Select the correct answer using the code given below.

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

EXPLANATION:

Objectives of Green India Mission (GIM)

1. Growth in forest or tree cover to 5 million hectares (mha) and increase the quality of forest cover in another 5 million hectares of forest or non-forest lands. There are separate sub-targets for a variety of forests and its ecosystems namely, grassland, dense forest, wetland etc. so statement 1 is correct.
2. Increase the quality of degrading moderately dense forests – 1.5 million hectares (ha).
3. Ecologically restore open forests which are being degraded – 3 million hectares (ha) so statement 2 is correct.
4. Grasslands revival – 0.4 million hectares
5. Wetlands revival – 0.10 million hectares
6. Ecological restoration of shifting cultivation areas, mangroves, scrub, ravines, cold deserts, & abandoned mining areas – 1.8 million hectares with different sub-targets.
7. Increase in forest cover in urban areas and its outskirts – 0.20 million hectares.
8. Increase in forest and tree cover on marginal agricultural lands/fallows and other non-forest lands which comes under agroforestry – 3 million hectares.
9. Increase forest-based livelihood income for about 3 million households in and around these forest areas.
10. Increase Carbon Dioxide sequestration to a range of 50 to 60 million tonnes by 2020.

So option (c) is correct.

73. Consider the following countries:

- 1. India**
- 2. Sweden**
- 3. China**

Arrange the countries given above in the increasing order of their installed wind energy capacity.

- (a) 1-2-3
- (b) 2-1-3**
- (c) 3-1-2
- (d) 1-3-2

EXPLANATION:

World Region	End 2017	New 2018	End 2018	Change	Country	End 2017	New 2018	End 2018	Change
Asia-Pacific	234,417	26,737	261,152	11.4%	China	188,392	23,000	211,392	12.2%
Europe	178,136	11,677	189,806	6.4%	USA	89,077	7,588	96,665	8.5%
Americas	123,121	11,940	135,071	9.7%	Germany	56,189	3,122	59,311	5.6%
Africa & Middle East	4,758	962	5,720	20.2%	India	32,938	2,191	35,129	6.7%
World Total MW	540,432	51,316	591,549	9.5%	Spain	23,097	397	23,494	1.7%
Source: Global Wind Energy Council (GWEC) and WindEurope					United Kingdom	19,069	1,901	20,970	10.0%
					France	13,757	1,552	15,309	11.3%
					Brazil	12,769	1,939	14,707	15.2%
					Canada	12,240	566	12,816	4.6%
					Italy	9,506	452	9,958	4.8%
					Sweden	6,700	707	7,407	10.6%
					Turkey	6,872	497	7,369	7.2%
					Poland	5,848	16	5,864	0.3%
					Denmark	5,490	268	5,758	4.9%
					Portugal	5,313	67	5,380	1.3%
					Australia	4,813	549	5,362	11.4%
					Mexico	4,006	929	4,935	23.2%
					Netherlands	4,377	94	4,471	2.1%
					Japan	3,399	262	3,661	7.7%
					Ireland	3,371	193	3,564	5.7%
					World Total MW	540,432	51,316	591,549	9.5%
					Source: Global Wind Energy Council (GWEC) and WindEurope				

74. Consider the following statements:

1. He coined the term 'Non-Alignment'.
2. He wrote the first draft of Preamble to the Constitution of India.
3. He launched the India League in 1928 at London.

Which one of the following historical personalities is rightly indicated by the statements given above?

- (a) Jawaharlal Nehru
- (b) **VK Krishna Menon**
- (c) VP Menon
- (d) BR Ambedkar

EXPLANATION:

Who is V.K. Krishna Menon?

- V.K. Krishna Menon was an Indian nationalist, diplomat, and politician, described by some as the second most powerful man in India, after his ally, the 1st Prime Minister of India, Jawaharlal Nehru.
- Noted for his eloquence, brilliance, and forceful, highly abrasive personality, Menon inspired widespread adulation and fervent detraction in both India and the West.
- He was an unapologetic champion of India in the face of Western imperialism, who famously "taught the white man his place".
- Decades after his death, Menon remains an enigmatic and controversial figure.

What are the great contributions of V.K. Krishna Menon?

- As a young man, Menon led the overseas wing of the Indian independence movement, launching the India League in London.

- He aggressively campaigning within the United Kingdom to win public support for Indian independence, and rallying the support of such superpowers as the Soviet Union.
- In the immediate wake of independence, Menon emerged as engineer of and spokesman for India's foreign policy, and, more generally, architect of the non-aligned movement.
- He headed India's diplomatic missions to the United Kingdom and the United Nations, and distinguished himself in diplomatic matters including the Suez crisis.
- In 1957, Menon set the record for the longest speech(8 hours) before the U.N. Security Council while defending India's rights to the disputed territory of Kashmir, in the process earning widespread popularity and the sobriquet "Hero of Kashmir".
- Returning to India, he was repeatedly elected to both houses of the Indian parliament from constituencies as varied as Mumbai, Bengal, and Trivandrum in his native state of Kerala.
- Initially he served as a minister without portfolio, and later as Minister of Defence, overseeing the modernization of the Indian military and development of the Indian military-industrial complex, and spearheading the Indian annexation of Goa.
- He resigned in the wake of the Sino-Indian War, following allegations of India's military unpreparedness, but remained counselor to Nehru, member of parliament and elder statesman until his death

75. Which of the following statements is not correct about the “untouchability” in India?

- (a) Civil Rights Act, 1955 aims to abolish all forms of untouchability
- (b) **The term ‘Untouchability’ is defined under the Article 17 of the Indian Constitution**
- (c) Justifying untouchability on philosophical grounds is considered as an offense
- (d) Right under Article 17 is available against private individuals

EXPLANATION:

The term ‘untouchability’ has not been defined either in the Constitution. Hence, It is not defined under the Art 17 of the Indian Constitution. **So, option (b) is not correct.**

Justifying untouchability on traditional, religious, philosophical or other grounds is considered as an offence under the Civil Rights Act, 1955. **So, option (c) is correct.**

The Supreme Court held that the right under Article 17 is available against private individuals and it is the constitutional obligation of the State to take necessary action to ensure that this right is not violated. **So, option (d) is correct.**

ADDITIONAL INFORMATION:

The Civil Rights Act, 1955 declares the following acts as offences:

- preventing any person from entering any place of public worship or from worshipping therein;
- justifying untouchability on traditional, religious, philosophical or other grounds;
- denying access to any shop, hotel or places of public entertainment;
- insulting a person belonging to scheduled caste on the ground of untouchability;
- refusing to admit persons in hospitals, educational institutions or hostels established for public benefit;
- preaching untouchability directly or indirectly; and
- refusing to sell goods or render services to any person.

SOURCE:

Indian polity by M Laxmikanth

76. Recently in India, it is witnessed that children with COVID-19 are mostly asymptomatic or develop mild symptoms similar to Kawasaki disease. Consider the following statements about the “Kawasaki Disease”:

- 1. It is a fatal cardio muscular disease caused by Viruses.**
- 2. Usually it affects the children under five years of age.**
- 3. Boys are more likely to get this infection than the girls.**
- 4. High fever with swollen red strawberry tongue is a common symptom of this disease.**

Which of the statements given above are correct?

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

EXPLANATION:

Kawasaki disease is an illness that makes the blood vessels in the body swell and become inflamed. The exact cause of Kawasaki disease is unknown. Because it causes a high fever and swelling of the lymph nodes, Kawasaki disease is thought to be related to an infection. It may occur in children who have a genetic predisposition to the disease. The disease is not contagious. **So statement 1 is not correct.**

It is an acute inflammatory disease of the blood vessels and usually occurs in children below the age of five. **So statement 2 is correct.**

Boys are more likely to get infection than the girls. **So statement 3 is correct.**

Symptoms: Fever, rashes, redness of the cornea, red and cracked lips, a red tongue and lymph node enlargement of the neck. **So statement 4 is correct.**

SOURCE:

<https://www.cincinnatichildrens.org/health/k/kawasaki>

77. The terms “oxybenzone”, “octocrylene” and “octinoxate”, sometimes seen in the news recently, are

- (a) the chemicals found in the sunscreen products**
- (b) the chemicals used as fruit-ripening agents
- (c) the pesticides used in agriculture
- (d) the preservatives used in the processed foods

EXPLANATION:

Similar to oxybenzone and octinoxate, octocrylene is another UV filter that is absorbed into the skin to help offer sun protection. **So option (a) is correct**

ADDITIONAL INFORMATION:

A new O has been added to the list of toxic chemicals found in some sunscreens – with a significant body of research detailing the damage it can cause to both humans and aquatic life.

Similar to oxybenzone and octinoxate, octocrylene is another UV filter that is absorbed into the skin to help offer sun protection. The FDA approves octocrylene as non-harmful at concentrations of up to 10%, so why is it so bad?

It began with research showing that oxybenzone and octinoxate are harmful, and sunscreen companies found an alternative in avobenzone. However, avobenzone has to be stabilized by octocrylene because by itself it breaks down too quickly and doesn't provide long-lasting sun protection. Therefore, chances are great that even if your sunscreen does not have the two Os, it now has another harmful one.

78. Which of the following Continents has Penguins in the natural habitat?

- 1. Antarctica**
- 2. Australia**
- 3. Africa**

Select the correct answer using the code given below.

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

EXPLANATION:

All penguins live in the Southern Hemisphere, though it is a common myth that they all live in Antarctica. In fact, penguins can be found on every continent in the Southern Hemisphere which include South America, Africa and Australia.

79. Consider the following statements about the “Banking Regulation Act, 1949”:

- 1. Under this Act, both the Reserve Bank of India and the State Bank of India had been nationalised in India.**
- 2. This Act was not applicable to primary agricultural credit societies, non-agricultural primary credit societies and cooperative land mortgage banks.**

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

EXPLANATION:

Reserve Bank of India was established in 1935, under the Reserve Bank of India Act, 1934. The Government of India took control of the Imperial Bank of India in 1955, with Reserve Bank of India (India's central bank) taking a 60% stake, renaming it the State Bank of India. Hence, both the Reserve Bank of India and the State Bank of India are not Nationalised in India under this act. **So, statement 1 is not correct.**

This Act was not applicable to primary agricultural credit societies, non-agricultural primary credit societies and cooperative land mortgage banks. **So, statement 2 is correct.**

ADDITIONAL INFORMATION:

Banking Regulation Act, 1949

- This act was originally enacted as Banking Companies Act, 1949 on 16 March 1949. From 1st March, 1966, it was renamed as Banking Regulation Act, 1949. The act was initially enacted to regulate the banking companies. In 1965, it was amended and made applicable to cooperative banks also.
- The act extends to entire nation including Jammu and Kashmir. The act gives following powers to Reserve Bank of India (RBI)
 - To supervise the appointment of boards and management of the banks
 - To lay down instructions for audits
 - To control mergers, liquidation and moratorium
 - To provide directives on banking policy
 - Impose penalty
 - To regulate operations of the bank

80. **The resolution on fundamental rights passed in the Karachi session of Indian National Congress in 1931 includes**

1. **Free and compulsory primary education.**
2. **Neutrality of State in the religious matters.**
3. **Abolition of untouchability.**

Select the correct answer using the code given below.

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

81. **Which one of the following statements is not correct about the Comptroller and Auditor-General of India?**

- (a) She/he is the head of the Indian audit and account department and the chief Guardian of Public purse
(b) **Constitution of India clearly describes the duties and powers of the Comptroller and Auditor-General of India**
(c) The administrative expenses of the office of CAG, including all salaries, allowances and pensions are charged upon the Consolidated Fund of India
(d) She/he is ineligible to hold any office, either under the Government of India or of any state, once he/she retires/resigns as a CAG

EXPLANATION:

The Comptroller and Auditor General of India (CAG) is the head of the Indian Audit and Accounts Department. He is the guardian of the public purse and controls the entire financial system of the country at both the levels—the Centre and the state. **So, option (a) is correct.**

The Constitution (Article 149) authorises the Parliament to prescribe the duties and powers of the CAG in relation to the accounts of the Union and of the states and of any other authority or body. Accordingly, the Parliament enacted the CAG's (Duties, Powers and Conditions of Service) act, 1971. **So, option (b) is not correct.**

The administrative expenses of the office of CAG, including all salaries, allowances and pensions are charged upon the Consolidated Fund of India that is not subject to vote. **So, option (c) is correct.**

He is ineligible to hold any office, either under the Government of India or of any state, once he retires/ resigns as a CAG. **So, option (d) is correct.**

SOURCE:

Indian polity by M Laxmikanth

82. The Fiscal consolidation is a process where the government's fiscal health is getting improved. Which of the following measures will improve the fiscal position of the country?

1. Enhancing tax to GDP ratio
2. Achieving the Disinvestment targets
3. Decreasing the public investment on public infrastructure
4. Rationalizing the subsidies

Select the correct answer using the code given below.

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

EXPLANATION:

Tax-to-GDP ratio represents the size of a country's tax kitty relative to its GDP. It is a representation of the size of the government's tax revenue expressed as a percentage of the GDP. Higher the tax to GDP ratio the better financial position the country will be in. The ratio represents that the government is able to finance its expenditure. A higher tax to GDP ratio means that the government is able to cast its fiscal net wide. It reduces a government's dependence on borrowings.

Achieving the Disinvestment targets can lead to more liquid fund with the government. Hence, the government's fiscal health will improve.

Decreasing the public investment on public infrastructure will reduce the pressure of funding from the government. Hence, the government's fiscal health will improve.

Subsidies are one of the highest expenditure spent by the government. Rationalizing the Subsidies will help to reduce government expenditure and it will improve the government's fiscal health. **So, option (d) is correct.**

83. Which of the following rivers flow into the Arctic Ocean?

1. Lena
2. Kolyma
3. Karun
4. Nakdong

Select the correct answer using the code given below.

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

EXPLANATION:



84. **“Green Economy Initiative”, sometimes seen in the news recently, is an initiative of**

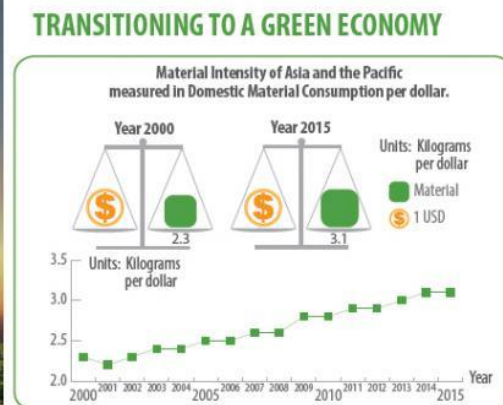
- (a) United Nations Framework Convention on Climate Change
- (b) United Nations Environment Programme**
- (c) United Nations Development Programme
- (d) Intergovernmental Panel on Climate Change

EXPLANATION:

Green Economy Initiative is a program of united nations environment program. **So option (b) is correct.**

ADDITIONAL INFORMATION:

A green economy is defined as low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services.



These green investments need to be enabled and supported through targeted public expenditure, policy reforms and changes in taxation and regulation. UN Environment promotes a development path that understands natural capital as a critical economic asset and a source of public benefits, especially for poor people whose livelihoods depend on natural resources. The notion of green economy does not replace sustainable development, but creates a new focus on the economy, investment, capital and infrastructure, employment and skills and positive social and environmental outcomes across Asia and the Pacific.

SOURCE:

<https://www.unenvironment.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy>

85. Which of the following Mughal architecture(s) is/are built by Akbar?

- 1. Pari Mahal**
- 2. Hiran Minar**
- 3. Buland Darwaza**

Select the correct answer using the code given below.





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

86. Product labelling is a tool that aims to provide accurate information to the public from the manufacturer. With reference to various types of labelling available for the Indian products, which one of the following statements is correct?

- (a) Red coloured triangle with a pesticide packet indicates that it is “highly toxic”**
- (b) Schedule H drug warning prevents the retail sales in all the circumstances**
- (c) A five digit PLU code over a fruit that starts with number “8” is an indicator for genetic modification**
- (d) ISEER ratings over the refrigerators provide information about its cooling capacity**

EXPLANATION:

Toxicity labels viz; red label, yellow label, blue label and green label are mandatory labels employed on pesticide containers in India identifying the level of toxicity (that is, the toxicity class) of the contained pesticide. The schemes follows from the Insecticides Act of 1968 and the Insecticides Rules of 1971.

Categorisation of pesticides				
Depiction				
Colour of lower triangle	Bright red	Bright yellow	Bright blue	Bright green
Toxicity class	Extremely toxic	Highly toxic	Moderately toxic	Slightly toxic
Oral LD ₅₀ value (mg/kg)	<50	51-500	501-5000	>5000
Signal words (Upper half)	POISON (In red)	POISON (In red)	DANGER	CAUTION
Warning words (Outside the diamond)	Keep out of reach of children. If swallowed or symptoms of poisoning occur, call doctor.	Keep out of the reach of children.	Keep out of the reach of children.	---

So statement 1 is not correct

The existing Schedule H contains 536 drugs, which cannot be legally dispensed without the prescription of a registered medical practitioner (RMP). **So statement 2 is not correct.**

A 5 digit code (starting with the number 8) – means your fruit has been genetically modified. It has been grown with pesticides already built in and has been modified. **So statement 3 is correct.**

ISEER rating is the total cooling load (amount of heat removed) to the total amount of energy consumed by the air conditioner. This means, ISEER = Cooling seasonal total load (CSTL) / Cooling seasonal energy consumption (CSEC). The ratio calculated is then used to select the correct star ratings. **So statement 4 is not correct.**

ADDITIONAL INFORMATION:

A 4 digit code – means your fruit was conventionally raised. If you don't see a label with 5 digits it is safe to assume your fruit has been grown with pesticides and chemicals in probably depleted soil.

A 5 digit code (starting with the number 8) – means your fruit has been genetically modified. It has been grown with pesticides already built in and has been modified.

A 5 digit code (starting with the number 9) – means your fruit is certified organic and most likely not made from Frankenstein (or in his lab)

87. **Large-scale mechanised corporate mining operations, involving heavy capital investment and man power and energy consumption, fall under which one of the following sector of the economy?**

- (a) Primary Sector
- (b) **Secondary Sector**
- (c) Tertiary Sector
- (d) Social Sector

EXPLANATION:

The secondary sector of the economy includes industries that produce a finished, usable product or are involved in construction. This sector generally takes the output of the primary sector and manufactures finished goods or where they are suitable for use by other businesses, for export, or sale to domestic consumers. This sector is often divided into light industry and heavy industry. Many of these industries consume large quantities of energy and require factories and machinery to convert raw materials into goods and products. It includes light and heavy industrial manufacturers of finished goods and products from raw materials. Textile production, car manufacturing, handicrafts, and the production of other knick knacks and products all belong in the secondary sector. Hence, Large scale mechanised corporate mining operations, involving heavy capital investment and man power and energy consumption fall under the secondary sector of the economy. **So, option (b) is correct.**

SOURCE:

NCERT 10th Economics

88. **Based on the findings of “Climate of India Report, 2019”, which of the following statement(s) is/are correct?**

- 1. **Arabian Sea witnessed more cyclonic storms than the Bay of Bengal.**
- 2. **Bihar was the worst affected Indian state with respect to rains and floods.**

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

EXPLANATION:

Arabian Sea witnessed more cyclonic storms than the Bay of Bengal. Arabian sea received 400% more rainfall **So statement 1 is correct**

Bihar was the worst affected Indian state with respect to rains and floods. Bihar suffered the most – with 650 deaths – due to various extreme weather conditions in the country last year, a compilation by the India Meteorological Department (IMD) **So statement 2 is correct**

ADDITIONAL INFORMATION:

The State of Climate of India Report was released by the India Meteorological Department (IMD) recently.

What does the report say?

- The Statement on Climate of India in 2019 confirms that the extreme weather events have become par for the course in the country.
- This is what climate scientists have been claiming for more than half a decade.
- It notes that excessive heat, cold and rainfall killed 1,562 people in 2019.
- In 2019, the mean temperature was 0.36 above normal while the country also recorded excess rainfall during both the southwest and northeast monsoons.
- Intense dry spells were interspersed with floods in several parts of the country.
- This is a phenomenon that policymakers will increasingly be called to factor while drawing up projects in areas as diverse as agriculture, urban planning, water resources and disaster management.

How the report should be seen?

- The IMD report should be seen in conjunction with long-term meteorological trends.
- The World Meteorological Organisation, for example, reckons that the decade starting 2011 remains on track to be the warmest on record.
- At the same time, data from the European Centre for Medium Range Forecast shows that the relative humidity in the mid-troposphere in the Subcontinent has increased by about 2% in the past four decades.
- Such warming has increased the capacity of oceans to form intense cyclonic disturbances.

What are the observed vagaries?

- In 2019, as the IMD report notes, the Indian Ocean witnessed eight cyclones.
- By that very fact, cyclones don't kill but buildings can turn hazardous during such extreme weather events.
- The Ministry of Housing and Urban Affairs does have guidelines for climate-friendly construction.
- But planners in coastal cities and towns rarely pay heed to its provisions.
- Kerala, southern Karnataka and Gujarat were heavily deficient till July 2019.
- But in the last week of July, these states recorded surplus rainfall.
- For farmers, such vagaries mean disruptions in the entire cropping cycle.

SOURCE:

[https://www.downtoearth.org.in/news/climate-change/india-climate-2019-arabian-sea-saw-400-more-cyclones-](https://www.downtoearth.org.in/news/climate-change/india-climate-2019-arabian-sea-saw-400-more-cyclones-68690#:~:text=%E2%80%9CThe%202019%20annual%20mean%20land,%E2%80%9Cwarmest%E2%80%9D%20years%20on%20record.)

[68690#:~:text=%E2%80%9CThe%202019%20annual%20mean%20land,%E2%80%9Cwarmest%E2%80%9D%20years%20on%20record.](https://www.downtoearth.org.in/news/climate-change/india-climate-2019-arabian-sea-saw-400-more-cyclones-68690#:~:text=%E2%80%9CThe%202019%20annual%20mean%20land,%E2%80%9Cwarmest%E2%80%9D%20years%20on%20record.)

89. Which of the following Acts give effect to some of the Fundamental Duties mentioned in the Indian Constitution?

1. The Prevention of Insults to National Honour Act, 1971
2. The Wildlife (Protection) Act, 1972
3. The Representation of People Act, 1951

Select the correct answer using the code given below.

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

EXPLANATION:

The Prevention of Insults to National Honour Act (1971) prevents disrespect to the Constitution of India, the National Flag and the National Anthem.

The Wildlife (Protection) Act of 1972 prohibits trade in rare and endangered species.

The Representation of People Act (1951) provides for the disqualification of members of the Parliament or a state legislature for indulging in corrupt practice, that is, soliciting votes on the ground of religion or promoting enmity between different sections of people on grounds of caste, race, language, religion and so on.

All three acts give effect to some of the fundamental duties. **So, option (d) is correct.**

ADDITIONAL INFORMATION:

The Verma Committee on Fundamental Duties of the Citizens (1999) identified the existence of legal provisions for the implementation of some of the Fundamental Duties. They are mentioned below:

- The Prevention of Insults to National Honour Act (1971) prevents disrespect to the Constitution of India, the National Flag and the National Anthem.
- The various criminal laws in force provide for punishments for encouraging enmity between different sections of people on grounds of language, race, place of birth, religion and so on.
- The Protection of Civil Rights Act (1955) provides for punishments for offences related to caste and religion.

- The Indian Penal Code (IPC) declares the imputations and assertions prejudicial to national integration as punishable offences.
- The Unlawful Activities (Prevention) Act of 1967 provides for the declaration of a communal organisation as an unlawful association.
- The Representation of People Act (1951) provides for the disqualification of members of the Parliament or a state legislature for indulging in corrupt practice, that is, soliciting votes on the ground of religion or promoting enmity between different sections of people on grounds of caste, race, language, religion and so on.
- The Wildlife (Protection) Act of 1972 prohibits trade in rare and endangered species.
- The Forest (Conservation) Act of 1980 checks indiscriminate deforestation and diversion of forest land for non-forest purposes.

SOURCE:

Indian polity by M Laxmikanth

90. Consider the following statements about the events happened during “Quit India Movement”:

- 1. Mahatma Gandhi asked the peasants not to pay the mutually agreed rent to the Zamindars.**
- 2. Mahatma Gandhi requested the Indian soldiers to leave the British Indian Army and participate in the 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***

91. National Credit Guarantee Trustee Company Ltd (NCGTC) was set up by the Department of Financial Services, Ministry of Finance, Government of India to, inter alia, act as a common trustee company to manage and operate various credit guarantee trust funds.

Which of the following credit guarantee funds operate under National Credit Guarantee Trustee Company?

- 1. Credit Guarantee Fund for Skill Development**
- 2. Credit Guarantee Fund for Education loans**
- 3. Credit Guarantee Fund for Micro Units**
- 4. Credit Guarantee Fund for Standup India**

Select the correct answer using the code given below.

- (a) 1 only*
- (b) 1, 2 and 3 only*

(c) 1, 2 and 4 only

(d) **1, 2, 3 and 4**

EXPLANATION:

National Credit Guarantee Trustee Company Ltd [NCGTC] was set up by the Department of Financial Services, Ministry of Finance, Government of India to, inter alia, act as a common trustee company to manage and operate various credit guarantee trust funds.

Current Trust Funds under the trusteeship management of NCGTC:

- Credit Guarantee Fund for Skill Development
- Credit Guarantee Fund for Education loans
- Credit Guarantee Fund for Micro Units
- Credit Guarantee Fund for Standup India
- Credit Guarantee Fund for Factoring

So, option (d) is correct.

ADDITIONAL INFORMATION:

Current Trust Funds under the trusteeship management of NCGTC:

- Credit Guarantee Fund for Skill Development (CGFSD)
 - Guarantees for Skill Development Loans by the member banks of IBA up to ₹ 1.5 lakh extended without collateral or third-party guarantee and the fund has a Target of 10-20 lakh loans to be guaranteed in a year.
- Credit Guarantee Fund for Education loans (CGFEL)
 - Guarantees for Education Loans by the member banks of IBA up to ₹ 7.5 lakh extended without collateral or third-party guarantee and the fund has a Target of 10 lakh loans to be guaranteed in a year.
- Credit Guarantee Fund for Factoring (CGFF)
 - Guarantees for domestic factored debts of MSMEs.
- Credit Guarantee Fund for Micro Units (CGFMU)
 - Guarantees for loans up to the specified limit (currently ₹ 10Lakh) sanctioned by Banks / NBFCs / MFIs / other financial intermediaries engaged in providing credit facilities to eligible micro units. Further, Overdraft loan amount of ₹ 5,000/- sanctioned under PMJDY accounts shall also be eligible to be covered under Credit guarantee Fund.
- Credit Guarantee Fund for Standup India (CGFSI)
 - Guarantees for credit facilities of over ₹ 10 lakh & upto ₹ 100 lakh sanctioned by the eligible lending institutions, under the Stand Up India Scheme (SC/ST/Women for setting up Greenfield enterprises).

SOURCE:

<https://www.ncgtc.in/en/about-us/background>

92. Consider the following statements about the “World Sustainable Development Summit”:

1. It is the annual flagship event of United Nations Development Programme.
2. It aims to expand the scope of its reach and involve many stakeholders in the fight against climate change.

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

EXPLANATION:

The World Sustainable Development Summit (WSDS) is the annual flagship event of The Energy and Resources Institute (TERI). **So statement 1 is not correct.**

It aims to expand the scope of its reach and involve many more stakeholders involved in the climate change fight. **So statement 2 is correct.**

ADDITIONAL INFORMATION:

The World Sustainable Development Summit (WSDS) is the annual flagship event of The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has marked 20 years in its journey of making ‘sustainable development’ a globally shared goal.

Given the current global health crisis and its close inter linkage with climate impact, the WSDS 2021 will be held under the umbrella theme of ‘Redefining Our Common Future: Safe and Secure Environment for All’. Discussions at the platform will focus on the current crisis and the roadmap that nations need to adopt enroute a greener recovery.

We have planned for a series of virtual dialogues between now and February, 2021. The first virtual dialogue was held on the eve of the World Environment Day 4th June, 2020. The occasion also marked the launch of a very special initiative underlining the role of youth, ‘Youth Unite for a Safe and Secure Environment for All’.

SOURCE:

<http://wsds.teriin.org/>

93. Which one of the following is *not* an advantage of “strategic disinvestment” of Public Sector Units (PSUs) as envisaged by the Government of India?

- (a) It leads to technology transfer from private players
- (b) It helps the government mop up funds to balance of their budgetary deficit**
- (c) It reduces the burden on the government machinery and helps them to concentrate on their primary responsibility of governance
- (d) It helps to infuse fresh thinking and corporate restructuring in the PSUs

EXPLANATION:

Strategic Disinvestment leads to technology transfer from private players. The statement is correct. **So, option (a) is not correct.**

The government undertakes disinvestment to reduce the fiscal burden on the exchequer, or to raise money for meeting specific needs, such as to bridge the revenue shortfall from other regular sources. While Strategic disinvestment in India has been guided by the basic economic principle that the government should not be in the business to engage itself in manufacturing/producing goods and services in sectors where competitive markets have come of age. The statement is not correct. **So, option (b) is correct.**

Strategic Disinvestment reduces the burden on the govt machinery and helps them concentrate on their primary responsibility of governance, rather than running a business/industry. The statement is correct. **So, option (c) is not correct.**

Strategic Disinvestment helps to infuse fresh thinking and corporate restructuring in the psu's which are mired in bureaucratic bottle neck. The statement is correct. **So, option (d) is not correct.**

ADDITIONAL INFORMATION:

Strategic Disinvestment

- Disinvestment means the dilution of stake of the Government in a public enterprise.
- Strategic disinvestment is transferring the ownership and control of a public sector entity to some other entity (mostly to a private sector entity).
- Unlike the simple disinvestment, strategic sale implies some sort of privatization.
- According to the government, strategic disinvestment would imply the sale of a substantial portion of the Government shareholding of a central public sector enterprises (CPSE) of upto 50%, or such higher percentage as the competent authority may determine, along with transfer of management control.
- Strategic disinvestment in India has been guided by the basic economic principle that the government should not be in the business to engage itself in manufacturing/producing goods and services in sectors where competitive markets have come of age, and economic potential of such entities may be better discovered in the hands of the strategic investors due to various factors, e.g. infusion of capital, technology up-gradation and efficient management practices etc.

SOURCE:

<https://economictimes.indiatimes.com/news/economy/policy/cabinet-approves-new-strategic-disinvestment-process/articleshow/71445908.cms>

94. Which of the following statements is correct about the “Lok Adalats” in India?

- (a) Lok Adalats have the jurisdiction to settle the matters at pre-litigation stage and not those matters pending before any court of law

- (b) Lok Adalats can deal with matters which are civil in nature only
(c) Every Lok Adalat consists of either serving or retired judicial officers only
(d) **None of the statements given above is correct**

EXPLANATION:

The Lok Adalat can deal with not only the cases pending before a court but also with the disputes at pre-litigation stage. **So, option (a) is not correct.**

Lok Adalats can deal with matters which are civil and criminal in nature, which are compoundable under the relevant laws. **So, option (b) is not correct.**

Every Lok Adalat organized for an area shall consist of such number of serving or retired judicial officers and other persons of the area as may be specified by the agency organizing such Lok Adalat. Generally, a Lok Adalat consists of a judicial officer as the chairman and a lawyer (advocate) and a social worker as members. **So, option (c) is not correct.**

None of the statements given above is correct. So, option (d) is correct.

SOURCE:

Indian polity by M Laxmikanth

95. With reference to the fluvial geomorphology, which one of the following statements is not correct about “Meanders”?

- (a) **Meanders are fluvial depositional landform**
(b) Coriolis plays a very important role in formation of Meanders
(c) Meanders forms in the low gradient river
(d) There is a possibility of meandering even at youth stage of a river

EXPLANATION:

Meanders are not fluvial depositional landform. Alluvial Fans and Cones, Natural Levees and Delta are fluvial depositional landforms. **So, option (a) is not correct.**

Even where the river is not forced to bend by a natural obstacle, Coriolis force of the earth can cause a small imbalance in velocity distribution such that velocity on one bank is higher than on the other. This can trigger erosion on one bank and deposition of sediment on the other. Hence, Coriolis plays a very important role in formation of Meanders. **So, option (b) is correct.**

Meanders forms in low gradient river. **So, option (c) is correct.**

There is a possibility of meandering even at youth stage of a river. **So, option (d) is correct.**

ADDITIONAL INFORMATION:

- A meander is defined as a pronounced curve or loop in the course of a river channel.
- The outer bend of the loop in a meander is characterized by intensive erosion and vertical cliffs and is called the cliff-slope side. This side has a concave slope.

- The inner side of the loop is characterized by deposition, a gentle convex slope, and is called the slip-off side.
- The meanders may be wavy, horse-shoe type or oxbow type.

96. **Which one of the following statement best describes the term “Personal Protection Equipment” (PPE), often seen in the news in the recent times?**

- (a) It acts as the first line of defense for protecting the health care workers
- (b) It acts as a pre-contact control safety mechanism to protect the workers
- (c) Polypropylene, non-woven material is largely preferred for making PPE**
- (d) According to Indian Drugs and cosmetics act, prior prescription of doctor is required to get a PPE kit for medical usage

EXPLANATION:

Polypropylene, a non-woven material that can be used only once, is largely used in making PPE. **So option (c) is correct.**

ADDITIONAL INFORMATION:

Single-use plastic (SUP), which is considered an environmental hazard, is now redeeming itself in an uncanny way by protecting doctors and other health workers from the deadly virus.

The threat of a ban loomed large over SUP till a few months ago. However, the demand for the product, which is used in making personal protective equipment (PPE), has nearly doubled since the virus outbreak.

PPE, including goggles, face shields, masks, gloves, coveralls or gowns, head covers and shoe covers, are all made of plastic and reduce the risk of the person using them from contracting an infection.

Why PPE is important?

PPE is important in a number of ways:

- 1- It helps in minimising the spread of the highly contagious coronavirus disease from one person to another.
- 2- It protects the lungs of a healthy person while breathing in contaminated air.
- 3- It also provides protection to the eyes of the healthy person from the infectants in the contaminated air.
- 4- It provides protection to the skin from coming in contact with the infected materials.
- 5- Coveralls are made up of impermeable fabric which acts as a barrier between infectious materials and the body parts along with the skin.

Where is it used?

PPE is used by medical professionals in hospitals, labs, etc. to contain the spread of the highly contagious disease.

How does PPE protect from COVID-19?

COVID-19 or Coronavirus disease is highly contagious and spreads mainly through respiratory droplets, either by direct touch or through contaminated objects.

Medical professionals such as Doctors, Nurses, etc. who are working on the frontline to save the lives of the people infected from the coronavirus disease are at high risk of getting sick with form the deadly virus. Therefore, PPE protects healthcare professionals to stay healthy while treating contaminated people.

SOURCE:

<https://www.livemint.com/news/india/single-use-plastic-turns-out-to-be-an-unlikely-hero-in-corona-battle-11586723058100.html>

97. Consider the following statements:

- 1. Carbon dioxide is absent in Mesosphere.**
- 2. Water vapour is present in Stratopause.**
- 3. Oxygen is present even beyond Mesosphere.**

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

EXPLANATION:

Carbon dioxide and water vapour are found only up to 90 km from the surface of the earth. Mesosphere exists upto 80 km. Hence, Carbon dioxide is present in the mesosphere. **So, statement 1 is not correct.**

Stratopause exists at 50 km. Since water vapour is found only up to 90 km from the surface of the earth, then Water vapour is present in stratopause. **So, statement 2 is correct.**

Oxygen will be almost in negligible quantity at the height of 120 km. Since Mesosphere exists upto 80 km then Oxygen is present even beyond mesosphere. **So, statement 3 is correct.**

98. With reference to the recent discoveries, consider the following statements about the “Red Snow phenomenon”:

- 1. The red colour of the snow is caused by the presence of a group of fungus called Chytridiomycota.**

2. It decelerate the rate of melting of the snow and reduces the impact of the global warming.

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**

EXPLANATION:

The snow is red because of a red-pigmented, microscopic algae called Chlamydomonasnivalischlamydomonas, which thrives in freezing water as the ice melts. **So statement 1 is not correct**

According to modern-day scientists, it is an algae species, Chlamydomonasnivalis chlamydomonas which exists in the snow in the polar and glacial regions and carries a red pigment to keep itself warm. So it accelerate snow melting. **So statement 2 is not correct**

ADDITIONAL INFORMATION:

- The phenomenon of “red snow” or “watermelon” has been observed over the last few weeks around Ukraine’s Vernadsky Research Base, off the coast of Antarctica’s northernmost peninsula.
- The snow is red because of a red-pigmented, microscopic algae called Chlamydomonasnivalischlamydomonas, which thrives in freezing water as the ice melts.
- This phenomenon has been known since ancient times but now it raises concerns about climate change.
- Aristotle is believed to be one of the first to give a written account of red snow, over 2,000 years ago. He attributed the redness of the snow to the colour of worms and grub (larva of an insect), which are found in long-lying snow.
- According to modern-day scientists, it is an algae species, Chlamydomonasnivalis chlamydomonas which exists in the snow in the polar and glacial regions and carries a red pigment to keep itself warm.
- Algae contain chlorophyll (green pigment) as well as a red carotene layer in their cells which mixes with the green colour to cause snow to look like “raspberry jam”.
- This layer is also said to protect the algae from ultraviolet radiation.
- These algae change the snow’s albedo (the amount of light or radiation the snow surface is able to reflect back).
- The intensity of the redness increases with the dense presence of the algae. The darker tinge leads to more absorption of heat by the snow. Subsequently, the ice melts faster.

- The melting is good for the microbes that need the liquid water to survive and thrive but it is bad for already melting glaciers

99. **Constitution of India provided for federal supremacy in the legislative functions. Which of the following was/were the purpose(s) to provide for the federal supremacy?**

- 1. To arrest down fissiparous tendencies emerging from any part of the country.**
- 2. To ensure unity and integrity of India remains intact.**

Select the correct option using the code given below.

- 1 only
- 2 only
- Both 1 and 2**
- Neither 1 nor 2

EXPLANATION:

The rule of federal supremacy is a technique to avoid absurdity, resolve conflict and ensure harmony between the Union and state laws. If this principle of union supremacy is excluded, it is not difficult to imagine its deleterious results. **So, statement 1 is correct.**

There will be every possibility of our two-tier political system being stultified by interference, strife, legal chaos and confusion caused by a host of conflicting laws, much to the bewilderment of the common citizen. Integrated legislative policy and uniformity on basic issues of common Union–state concern will be stymied. The federal principle of unity in diversity will be very much a casualty. This rule of federal supremacy, therefore, is indispensable for the successful functioning of the federal system. **So, statement 2 is correct.**

SOURCE:

Indian polity by M Laxmikanth

100. **Consider the following statements:**

- 1. The area of Gilgit Baltistan is larger than Aksai Chin.**
- 2. River Indus is flowing through the Gilgit Baltistan.**
- 3. Galwan valley is located in the Gilgit Baltistan.**

Which of the statements given above is/are correct?

- 1 and 2 only**
- 1 only
- 3 only
- 2 and 3 only

EXPLANATION:

Gilgit Baltistan -72 971 sq km and Aksai Chin 5,180 sqkm. **So, statement 1 is correct.**

Originating in the western part of Tibet in the vicinity of Mount Kailash and Lake Manasarovar, the river runs a course through Ladakh, Gilgit-Baltistan, and Khyber Pakhtunkhwa, and then flows along the entire length of Punjab to merge into the Arabian Sea near the port city of Karachi in Sindh. Hence, River Indus is flowing through the Gilgit Baltistan. **So, statement 2 is correct.**

Galwan Valley lies along the western sector of the Line of Actual Control, and close to Aksai Chin, an Indian territory under Beijing's control. **So, statement 3 is not correct.**

ADDITIONAL INFORMATION:

