



All India Civil Services Coaching Centre

(Under the aegis of Government of Tamil Nadu)

Answer Key Exp

Test 12 - Geography and Polity

Maximum Questions: 100

Maximum Marks: 200

1. Ans: B

Exp:

- Option (b) is correct

Dissected Plateau

- A dissected plateau forms as a result of upward movement in the Earth's crust.
- The uplift is caused by the slow collision of tectonic plates.
- The Colorado Plateau, in the western United States, has been rising about .03 centimeter (.01 inch) a year for more than 10 million years.
- These are formed through the erosion of sediment by flowing water.
- The eastern part of the Plateau of Tibet is believed to have dissected terrain due to the headwaters of many Asian rivers which eroded much of the rock, and left behind deep canyons.
- Such plateaus are defined by ridged piercings in the ground with sharp, narrow sides, and although lacking flat areas, the uplands consisting of mountains and ridges are almost uniformly level.
- The dissected plateaus are distinguishable from orogenic mountain belts by the lack of folding, metamorphism, extensive faulting, or magmatic activity that accompanies orogeny.

2. Ans: C

Exp:

- All statements are correct

Geothermal Features

Fumaroles

- They are geothermal features that depend on the interactions of released volcanic gases and the local groundwater system.
- These occur in areas where a magma conduit passes through the water table. The magma can be liquid or recently solidified, but still hot.
- The heat from the magma causes water to become steam. As the steam rises it carries volcanic gases such as hydrogen sulfide (H₂S) to the surface.
- This mixture of steam and gas is erupted from vents and fissures in the ground. Due to this chemical activity, fumaroles can be very dangerous.
- Associated chemical reactions can color the surrounding rocks.
- Areas with fumarole features are sometimes called "dying volcanoes" because they occur near the end stages of volcanic activity as the magma deep underground solidifies and cools.

Mudpots

- They are surface features that occur when limited amount of geothermal water is mixed with mud and clay.
- Acid and bacteria in the water can dissolve surrounding rock forming viscous pools of bubbling mud.

3. Ans: D

Exp:

- Pair 1 is incorrectly matched: Juan de Fuca Plate – Cascadia Trench

- Pair 2 is incorrectly matched: Nazca Plate – Atacama Trench

Trenches formed along Minor Plates

Cascadia Trench

- The subduction of the Juan de Fuca Plate beneath the North American Plate forms the Cascadia Trench, which is the western edge of the Cascadia subduction zone.
- Oceanic crust forms by eruptions along the Juan de Fuca Ridge.
- As the Juan de Fuca Plate drifts eastward, it cools, becomes denser, and eventually dives under the less dense North American Plate at the Cascadia Trench.
- Water released from the subducting slab causes the overlying mantle to partially melt, forming magma that sustains the Cascade Range of volcanoes (black triangles).

Atacama Trench

- The Peru–Chile Trench, also known as the Atacama Trench, is an oceanic trench in the eastern Pacific Ocean off the coast of Peru and Chile.
- It delineates the boundary between the subducting Nazca Plate and the overriding South American Plate.
- The Peru–Chile Trench reaches a maximum depth of 8,065 m (26,460 ft) below sea level in “Richards Deep” and is approximately 5,900 km (3,666 mi) long. The Peru–Chile Trench, the forearc, and the western edge of the central Andean plateau (Altiplano), delineate the dramatic “Bolivian Orocline” that defines the Andean slope of southern Peru, northern Chile and Bolivia.

Middle America Trench

- The Middle America Trench sometimes referred to as the Central America Trench or Mid-American Trench, is a major subduction zone.

- It is an oceanic trench in the eastern Pacific Ocean off the coast of Central America.
- It can be divided into a northern section called the Acapulco Trench and a southern section called the Guatemala Trench.
- The trench is the boundary between the Rivera Plate (a microplate), the Cocos Plate and the Nazca Plate on one side; and the North American Plate and Caribbean Plate on the other.

4. Ans: D

Exp:

- Both statements are correct
- **Frost Wedging**
- Frost wedging (or ice wedging) happens when water seeps into cracks, and then expands upon freezing. The expansion enlarges the cracks.
- The effectiveness of frost wedging depends on how often freezing and thawing occurs.
- Frost wedging won't be as important in warm areas where freezing is infrequent, in very cold areas where thawing is infrequent, or in very dry areas, where there is little water to seep into cracks.
- Frost wedging is most effective in Canada's climate, where for at least part of the year temperatures oscillate between warm and freezing.
- A common feature in areas of effective frost wedging is a talus slope — a fan-shaped deposit of fragments removed by frost wedging from the steep rocky slopes above.

5. Ans: D

Exp:

- All statements are correct
- **Solifluction**
- It is a slow downward movement of soil which results from the complete waterlogging of sediment.
- It occurs slowly and is measured in millimeters or centimeters per year.

- It more or less uniformly affects the whole thickness of the soil rather than collecting in certain areas.
- Solifluction happens during the summer thaw when the water in the soil is trapped there by frozen permafrost beneath it.
- This waterlogged sludge moves downslope by gravity, helped along by freeze-and-thaw cycles that push the top of the soil outward from the slope (the mechanism of frost heave).
- The major sign of Solifluction in the landscape is hillsides that have lobe-shaped slumps in them, similar to small, thin earthflows.
- Other signs include patterned ground, the name for various signs of order in the stones and soils of alpine landscapes.

Slumping

- It is a downward movement of a block of earth material where clay-rich materials are exposed along a steep slope.
- Slump is common where clay-rich materials are exposed along a steep slope.
- Such over steepend slopes naturally occur on the outside of meanders along the Red River.
- Slump is typically identified as the downward movement of a block of earth material along some curved surface of failure.

Soil Creep

- It is a slow and downward flow of soils which is common in damp soils where water act as a lubricant so that individual soil particles move over each other.
- It is also found where continuous trampling by animals grazing on the slopes sets up vibrations which loosen the soil and cause it to move.

6. Ans: C

Exp:

- Both statements are correct
- Hot Desert and Mid-latitude Desert Climates**
- The aridity of the hot deserts is mainly due to the effects of the Trade winds, hence they are called Trade Wind Desert.

- The temperate deserts are rainless because of their interior location in the temperate latitudes.
- The hot deserts lie astride the Horse Latitudes or the Sub-Tropical High Pressure Belts where the air is descending, a condition least favourable for precipitation of any kind to take place.
- The deserts are some of the hottest spots on earth and have high temperatures throughout the year.
- There is no cold season in the hot deserts.
- The climatic conditions of the mid-latitude deserts are in many ways similar to those of the hot deserts.
- Aridity is the keynote.
- These inland basins lie hundreds of miles from the sea, and are sheltered by the high mountains all around them.
- As a result they are cut off from the rain-bearing winds.
- World's tropical deserts located on the Western margins of continents
- Presence of cold ocean currents along the western coast of continents tends to stabilise the air over the coast. This prevents cloud formation and rainfall.
- Hence, it leads to arid conditions or the formation of marine deserts on the adjacent coastal lands.
- Offshore areas of trade wind and falling under the rain shadow area: When the moisture laden trade wind flows from east to west shed their moisture on the eastern part and by the time they reach the western margin, they become dry.
- These dry winds make the soil more and this led to the formation of the desert.
- Anti-cyclonic conditions: The areas between 20 ° -30 ° latitude on western margins of continents are the regions of descending air.
- Because of this, the air gets compressed and warm as it descends and thus the moisture keeps decreasing.
- Formation of Rain-shadow Zone: A region in the lee of mountains that receives less rainfall than the region windward of the mountains is called rain-shadow zone.

7. Ans: C

Exp:

- Both statements are correct
- **Factors affecting Ocean Salinity**
- **Rate of Evaporation:** The waters fringing the High Pressure Belts of the Trade Wind Deserts, between 20 degrees and 30 degrees N and S have high salinity because of high rate of evaporation caused by high temperature and low humidity.
- **The amount of freshwater added by Precipitation:** Salinity is lower than the average 35 parts per thousand in equatorial waters because of the heavy daily rainfall and high relative humidity.
- **The degree of water mixing by currents:** In wholly or partially enclosed seas, the waters do not mix freely with the ocean water and they are not penetrated by ocean currents.

8. Ans: A

Exp:

- Statement 3 is incorrect: Jiri is a north bank tributary while Sonai is a south bank tributary of Barak.
- **Rivers of Northeast India**
- The Barak River originates from the Manipur hills, from Liyai Village in Senapati district in Manipur at an elevation of 2,331 m and flows through Assam and further down to Bangladesh, where it is known by the name of the Surma and the Kushiara and later called the Meghna before receiving the combined flow of the Ganga and the Brahmaputra.
- The principal tributaries of Barak joining from north bank are the Jiri, the Chiri, the Modhura, the Jatinga, the Harang, the Kalain and the Gumra whereas the Dhaleswari, the Singla, the Longai, the Sonai and the Katakhal joins from south bank.
- The Barak sub-basin lies in the States of Meghalaya, Manipur, Mizoram, Assam, Tripura and Nagaland.
- The basin of Minor Rivers draining into Myanmar and Bangladesh extends over states of Mizoram, Nagaland, Manipur

and Tripura having a total area of approx. 36,202 Sq.km.

- The Imphal River or Manipur River is the main river of the basin and it rises near Kangpokpi in Senapati district of Manipur and receives the Iril River from the south and the Thoubal River from the east.
- It also receives the Khuga River from the south-west and is known as Manipur River below its confluence.
- The Rivers of North East supports rich biodiversity as the region is located in two biodiversity hotspot, the Indo-Burma Biodiversity Hotspot and the Eastern Himalayas Hotspot.
- Indigenous communities also maintained unique cultural and spiritual relationship with these Rivers, other than survival dependence.

9. Ans: C

Exp:

- Statement 2 is incorrect: The depressions created by the Easterly jet stream have a significant role in the distribution of monsoon rainfall over the Indian subcontinent.
- Statement 3 is incorrect: The western cyclonic disturbance originates in the Mediterranean Sea.
- **Mechanism of Weather in the Winter Season**
- Surface Pressure and Winds - In winter months, the weather conditions over India are generally influenced by the distribution of pressure in Central and Western Asia.
- A high pressure centre in the region lying to the north of the Himalayas develops during winter.
- The surface winds blowing out of the high pressure centre over Central Asia reach India in the form of a dry continental air mass.
- These continental winds come in contact with trade winds over northwestern India.

- The position of this contact zone is not, however, stable.
- Occasionally, it may shift its position as far east as the middle Ganga valley with the result that the whole of the northwestern and northern India up to the middle Ganga valley comes under the influence of dry northwestern winds.

Jet Stream and Upper Air Circulation

- All of Western and Central Asia remains under the influence of westerly winds along the altitude of 9-13 km from west to east.
- These winds blow across the Asian continent at latitudes north of the Himalayas roughly parallel to the Tibetan highlands. These are known as jet streams.
- Tibetan highlands act as a barrier in the path of these jet streams. As a result, jet streams get bifurcated. One of its branches blows to the north of the Tibetan highlands, while the southern branch blows in an eastward direction, south of the Himalayas.
- It is believed that this southern branch of the jet stream exercises an important influence on the winter weather in India.

Western Cyclonic Disturbance and Tropical Cyclones

- The western cyclonic disturbances which enter the Indian subcontinent from the west and the northwest during the winter months, originate over the Mediterranean Sea and are brought into India by the westerly jet stream.
- Tropical cyclones originate over the Bay of Bengal and the Indian ocean.
- These tropical cyclones have very high wind velocity and heavy rainfall and hit the Tamil Nadu, Andhra Pradesh and Odisha coast.

Mechanism of Weather in the Summer Season

- Surface Pressure and Winds - As the summer sets in and the sun shifts northwards, the wind circulation over the subcontinent undergoes a complete

reversal at both, the lower as well as the upper levels.

- By the middle of July, the low pressure belt nearer the surface [termed as Inter Tropical Convergence Zone (ITCZ)] shifts northwards, roughly parallel to the Himalayas.
- By this time, the westerly jet stream withdraws from the Indian region.
- Jet Streams and Upper Air Circulation - An easterly jet stream flows over the southern part of the Peninsula in June.
- Easterly Jet Stream and Tropical Cyclones - The easterly jet stream steers the tropical depressions into India.
- These depressions play a significant role in the distribution of monsoon rainfall over the Indian subcontinent.
- The tracks of these depressions are the areas of highest rainfall in India.
- The frequency at which these depressions visit India, their direction and intensity, all go a long way in determining the rainfall pattern during the southwest monsoon period.

10. Ans: B

Exp:

- Statement 1 is incorrect: The phenomenon Western disturbances are usually associated with cloudy sky, higher night temperatures and unusual rain.

Impact of Western Disturbances in India

- Western Disturbances are the cause of the most winter and pre-monsoon season rainfall across North-West India. This phenomenon is usually associated with cloudy sky, higher night temperatures and unusual rain.
- It is estimated that India gets close to 5-10% of its total annual rainfall from western disturbances.
- In winter, western winds bring moderate to heavy rain in low lying areas and heavy snow to mountainous areas of the Indian subcontinent.
- India is a rain dependent country and while the south west monsoon covers most of India, parts of North India don't

get much rain from it. These regions depend upon snow and rain from western disturbance during the winter season from November to March.

- Precipitation during the winter season has great importance in agriculture particularly for Rabi crops including wheat, which is one of the most important Indian crops.
- They start declining after winter. During the summer months of April and May, they move across North India and at times help in the activation of monsoon in certain parts of northwest India.
- During the monsoon season, western disturbances may occasionally cause dense clouding and heavy precipitation.
- Weak western disturbances are associated with crop failure and water problems across north India.
- Strong western disturbances can help residents, farmers and governments avoid many of the problems associated with water scarcity.

11. Ans: C

Exp:

- Statement 3 is correct: The axis of Earth is inclined at an angle of 66 degrees from the plane of its elliptical orbit of revolution.
- The result of this tilt of earth's axis is responsible for varying lengths of day and night at different locations on the Earth and for giving rise to different seasons.
- If this axis was inclined perpendicular to its orbit, then all places on earth would experience the same lengths of day and night. Hence, the duration of day and night at all places on the earth would be the same.

12. Ans: C

Exp:

- Statement 1 is correct: The movement of the sun is restricted between the Tropic of cancer in the Northern Hemisphere and the Tropic of Capricorn in the Southern Hemisphere.

- Statement 2 is correct: During winters in the Northern Hemisphere, the sun is overhead at the Tropic of Capricorn. Hence, direct rays fall on the Southern hemisphere while oblique rays travel to the Northern Hemisphere.
- These rays travel a longer distance and hence lose much of their heat in their path in the atmosphere. Thus, during winters temperature is lower and the sun rays fall over a larger surface of the earth in the Northern Hemisphere.
- Statement 3 is incorrect: Twilight is the duration between the onset of sunset and complete darkness.
- Dawn refers to the duration between the onset of sunrise and full daylight.
- The sun is below the horizon during the dawn or twilight and Earth receives diffused or refracted light.
- Since, oblique rays fall on the temperate latitudes, the duration of dawn or twilight is longer whereas near the tropics, this duration is almost negligible.
- Statement 4 is incorrect: June solstice or the summer solstice (21st June) occurs when the sun is directly overhead at the Tropic of cancer in the Northern Hemisphere.
- The Northern hemisphere experiences summer and the days are longer while the nights are shorter.

13. Ans: B

Exp:

- Statement 1 is incorrect: Rotation of Earth around its own axis is responsible for the occurrence of day and night.
- Earth takes 24 hours to rotate around its own axis.
- The part of the earth that faces the sun experiences the day while the other part faces the night.
- Statement 2 is correct: Effect of seasonality is less pronounced at the areas within the tropics.
- Days and nights are almost equal all the year round near the equator as the

variation in the sun's position is almost negligible during the day time.

- Seasons are more distinctly marked in the higher latitudes.
- Statement 3 is incorrect: Axial tilt of the earth is responsible for the variation in the length of day and night.
- Axial tilt along with the revolution of the earth causes the occurrence of seasons with variations in the length of day and night.
- Statement 4 is incorrect: December solstice or the winter solstice (December 22) occurs when the sun is overhead at the Tropic of capricorn in the southern hemisphere.
- The Northern Hemisphere experiences winters and is characterised by lower temperature and negative heat gain.
- The net gain in the heat occurs in the Northern Hemisphere during the summer season

14. Ans: A

Exp:

- Statement 1 is correct: A placer deposit or placer is an accumulation of valuable minerals formed by gravity separation from a specific source rock during sedimentary processes.
- Placers can be found in rivers -alluvial placers and on the coast, particularly in beaches -beach placers.
- Statement 2 is correct: Placer Minerals must be both dense and resistant to weathering processes.
- To accumulate in placers, mineral particles must have a high specific gravity.
- They should also be durable. Example- gold, platinum, etc.
- Statement 3 is incorrect: Placer Deposits are one of the evidences in the support of the Continental Drift Theory.
- The placer deposits of gold in the Ghana coast do not have source rock in the region.
- The gold deposits of Ghana have been derived from the Brazil plateau when the two continents lay side by side.

15. Ans: B

Exp:

- Statement 1 is correct: The Mid-Atlantic Ridge runs through Iceland where the ridge is also known as the Neovolcanic Zone.
- Statement 2 is correct: Japan is situated near a destructive plate margin , where the Pacific Plate is being pushed under the Philippine Plate. Japan and earthquakes go hand in hand due to the country's position along the "Pacific Ring of Fire," where it lies across three tectonic plates, including the Pacific Plate under the Pacific Ocean and the Philippine Sea Plate.
- Statement 3 is incorrect: The East African Rift Valley is a developing divergent plate boundary in East Africa. Here the eastern portion of Africa, the Somalian plate, is pulling away from the rest of the continent, that comprises the Nubian plate.

16. Ans: D

Exp:

- Option 1 is correct: When a rock is subjected to increased temperatures and pressures, certain minerals will undergo chemical reactions and turn into new minerals, while others might just change their shape. This will be dependent upon the Mineral composition of the Parent Rock.
- Option 2 is correct: The pressure has the ability to squeeze the spaces out of the minerals within the rock. This makes the rocks denser.
- The heat and pressure together cause the rock to flow instead of break or fracture.
- Option 3 is correct: Water speeds up the process of metamorphism. It also allows for the transportation of ions from one place to another.
- Option 4 is correct: The temperature that the rock is subjected to is a key variable in controlling the type of metamorphism that takes place.
- Rocks of different compositions begin to melt at different temperatures

17. Ans: B

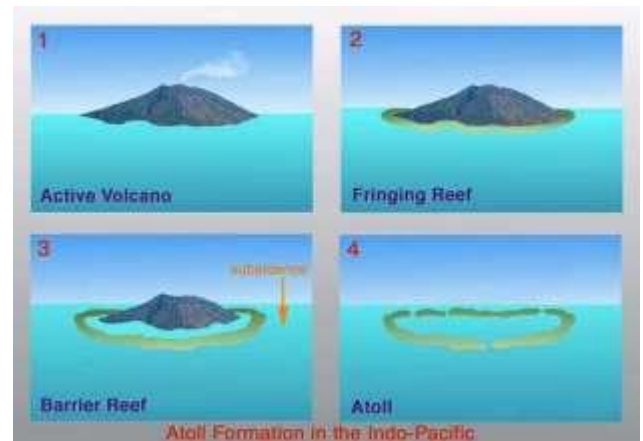
Exp:

- Option 1 is correct: Attrition is the process of erosion that occurs during rock collision and transportation.
- It is the wear and tear of transported materials themselves when they collide with each other.
- The transportation of sediment chips and smoothens the surfaces of bedrock; this can be through water (fluvial) or wind (aeolian).
- Attrition is also partially responsible for turning boulders into smaller rocks and eventually to sand.
- Option 2 is incorrect: In glaciology and meteorology, ablation—the opposite of accumulation—refers to all processes that remove snow, ice, or water from a glacier or snowfield.
- Ablation refers to the melting of snow or ice that runs off the glacier, evaporation, sublimation, calving, or erosive removal of snow by wind. It therefore is a process that carves Glacial landforms.
- Option 3 is incorrect: Deflation, in geology, erosion by wind of loose material from flat areas of dry, uncemented sediments such as those occurring in deserts, dry lake beds, floodplains, and glacial outwash plains. It is not related to the Fluvial cycle of erosion.
- Option 4 is correct: Abrasion is a process of erosion which occurs when material being transported wears away at a surface over time. It is the process of friction caused by scuffing, scratching, wearing down, marring, and rubbing away of materials.
- Rocks and sediment grinding against each other wear away surfaces. It happens as wind and water rush over rocks.
- The rocks become smoother as rough and jagged edges break off.

18. Ans: B

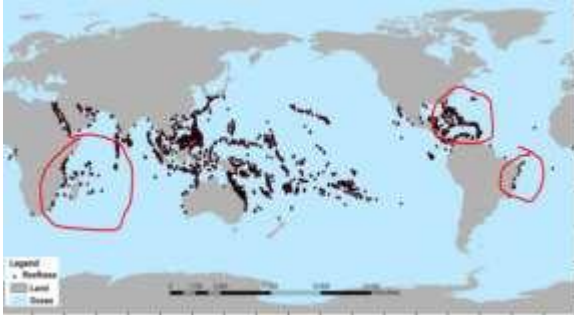
Exp:

- Statement 1 is incorrect:



- Fringing reefs grow near the coastline around islands and continents. They are separated from the shore by narrow, shallow lagoons.
- Fringing reefs are the most common type of reef that we see.
- Barrier reefs also parallel the coastline but are separated by deeper, wider lagoons.
- At their shallowest point, they can reach the water's surface forming a "barrier" to navigation.
- The Great Barrier Reef in Australia is the largest and most famous barrier reef in the world.
- Statement 2 is correct: Atolls are rings of coral that create protected lagoons and are usually located in the middle of the sea.
- Atolls usually form when islands surrounded by fringing reefs sink into the sea or the sea level rises around them (these islands are often the tops of underwater volcanoes).
- The fringing reefs continue to grow and eventually form circles with lagoons inside.
- Statement 3 is correct: Reef-building corals cannot tolerate water temperatures below 18° Celsius.
- Many grow optimally in water temperatures between 23°–29°Celsius. This Virtually limits the areal distribution of corals to the tropical and subtropical zones.
- They are averse to cold currents because of the upwelling of cold water from the depths that cools the warm water surface.

- The Western margins of the continents generally receive cold water currents from higher latitudes.
- Coral reefs are thus usually absent in the Western margins of continent
- As can be seen in the map, most coral reefs are found on the eastern margins.



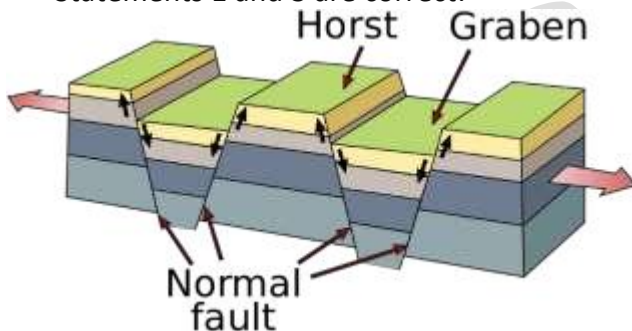
19.

Ans:

C

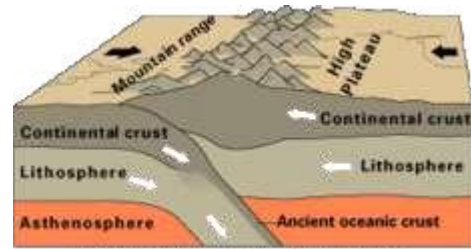
Exp:

- Statements 1 and 3 are correct:



- Fault blocks are very large blocks of rock, sometimes hundreds of kilometres in extent, created by tectonic and localized stresses in Earth's crust.
- Large areas of bedrock are broken up into blocks by faults.
- Blocks are characterized by relatively uniform lithology.
- The largest of these fault blocks are called crustal blocks Landforms (mountains, hills, ridges, lakes, valleys, etc.) are sometimes formed when the faults have a large vertical displacement.
- Adjacent raised blocks (horsts) and down-dropped blocks (grabens) can form high escarpments.
- Often the movement of these blocks is accompanied by tilting, due to compaction or stretching of the crust at that point.

- Statement 2 is Incorrect:



Continental-continental convergence

Fold mountains are created where two or more of Earth's tectonic plates are pushed together. At these colliding, compressing boundaries, rocks and debris are warped and folded into rocky outcrops, hills, mountains, and entire mountain ranges.

- Hence Compression forces (and not tension forces) are responsible for folding.

20. Ans: C

Exp:

- Mesas - A mesa is an isolated, flat-topped elevation, ridge or hill, which is bounded from all sides by steep escarpments and stands distinctly above a surrounding plain.
- Mesas characteristically consist of flat-lying soft sedimentary rocks capped by a more resistant layer or layers of harder rock, e.g. shales overlain by sandstones.



- The resistant layer acts as a caprock that forms the flat summit of a mesa. The caprock can consist of either sedimentary rocks such as sandstone and limestone; dissected lava flows; or a deeply eroded duricrust.
- Unlike plateau, whose usage does not imply horizontal layers of bedrock, the

term mesa applies exclusively to the landforms built of flat-lying strata.

- Instead, flat-topped plateaus are specifically known as tablelands.

21. Ans: C

Exp:

- Statement 1 is incorrect: Nearly 71% of earth's surface is covered by seas, among which Pacific Ocean comprises 35.4%, Atlantic Ocean comprises 18.4%, Indian Ocean 14.5% and Arctic Ocean 3%.
- Statement 2 is correct: The average depth of the oceans is 2.65 miles or 4.3km.
- Pacific ocean has the highest average depth, followed by Indian ocean, Atlantic ocean and arctic ocean.
- Statement 3 is correct: The salinity is the total of all the salt that are dissolved in the water.
- The majority of the salt is the same as table salt (Sodium Chloride-77.8%), but there are other salts as well (magnesium chloride-10.9%, magnesium sulphate-4.7%, calcium sulphate-3.6%, potassium sulphate-2.5%).
- The major dissolved ions in seawater are those that exist at concentrations of at least 1mg/kg.
- These are from more to less abundant by mass : chloride-sodium-magnesium-sulphate-calcium-potassium.
- Statement 4 is correct: Continental crust is broadly granitic in composition and, with a density of about 2.7 gms per cubic centimeter, is somewhat lighter than the oceanic crust, which is basaltic in composition and has a density of about 2.9-3.0gms per cubic cm.
- It is less dense than the oceanic crust (basalt richer in iron and magnesium than granite), though it is considerably thicker than the oceanic crust.

22. Ans: D

Exp:

- Statement 1 is correct: Ocean currents circulate water worldwide, they have a significant impact on the movement of

heat, energy and moisture between the oceans and atmosphere and as a result they are an important factor governing the world's weather.

- The Labrador, Kurile and Falkland cold currents are responsible for heavy snowfall in the affected areas during winters.
- Statement 2 is correct: The North Atlantic Drift and Kuroshio warm currents bring in rainfall along the western coasts of Europe and eastern coasts of Japan respectively.
- On the other hand cold currents discourage rainfall. The Kalahari desert along the western coast of South Africa and Atacama desert along South American coast owe their existence to cold Benguela and Peru currents respectively.
- Statement 3 is correct: Ocean currents play an important role in the distribution, breeding and growth of the world's sea life as it transports nutrients, planktons from one area to another which favour the growth of marine organisms.
- By moving heat from the equator towards the poles, ocean currents play an important role in controlling the climate which is an important factor in breeding.
- Many ocean species follow ocean currents to and from their feeding and breeding grounds, for ex- Sharks, Whales and Sea turtles.
- Statement 4 is correct: Ocean currents hinder navigation, the convergences of cold and warm ocean currents causes dense fogs which poses obstacles in navigation. For example, due to the convergence of warm Kuroshio and cold Oyashio currents near Japan and near Newfoundland due to the convergence of warm Gulf stream and cold Labrador current.
- Ocean current also impacts the speed of ships as the knowledge of ocean currents is essential for modifying the speed depending upon the path of ocean currents in order to optimize time and fuel consumption.

- Statement 5 is correct: Ocean currents are also gaining significance as a possible form of alternative energy.
- Alternative energy sources include solar, wind, waves, tides and geothermal energy.
- There are even proposals to utilize ocean currents such as the Gulf Stream to utilize the temperature differential between warm surface waters and colder waters deeper in the ocean to produce energy.
- Because the water is dense, it carries an enormous amount of energy that could possibly be captured and converted into usable form through the use of water turbines.

23. Ans: D

Exp:

- Statement 1 is correct: The planetary winds are permanent winds (Trade winds, Westerlies and Polar easterlies) that blow from one pressure belt to the other.
- Between the equator and the tropics blow the Trade Winds which move equatorial waters polewards and westwards and warm the eastern coast of the continents. For example, the south east Trade winds drive the south equatorial current which warms the eastern coast of Brazil as the warm Brazilian current.
- In temperate latitudes blow the Westerlies, and result in the north easterly flow of water in the northern hemisphere, so that the warm Gulf stream is driven to the western coast of Europe as the North Atlantic drift.
- The strongest evidence of prevailing winds on current flows is seen in the North Indian ocean. Here the direction of currents changes completely with the direction of the monsoon winds which come from the north east in winter and south west in summer.
- Statement 2 is correct: The differential heating of the sun at the equator and the poles causes a difference in the temperature of ocean water.
- As warm water is lighter and rises, and cold water is dense and sinks, warm

equatorial waters move slowly along the surface polewards, while the heavier cold water of the polar regions creep slowly along the bottom of the sea equatorwards.

- Statement 3 is correct: Salinity of water varies from place to place. Waters of high salinity are denser than waters of low salinity. Hence waters of low salinity flow on the surface of waters of high salinity while waters of high salinity flow at the bottom towards waters of low salinity. For example in the Mediterranean region, there is great difference in salinity between the waters of the open Atlantic and those of the partially enclosed Mediterranean sea.
- The less saline water of the Atlantic flows on the surface into the Mediterranean, and this is compensated for by an outflow of denser bottom water from the Mediterranean.
- Statement 4 is correct: The earth's rotation deflects freely moving objects, including ocean currents, to the right (Coriolis Force).
- In the Northern hemisphere this is a clockwise direction (example: the circulation of the Gulf Stream Drift and the Canaries Current).
- In the southern hemisphere it is an anti-clockwise direction (example: the Brazilian current and the west Wind drift).
- Statement 5 is correct: Presence of landmass obstructs and diverts a current. For instance the tip of southern Chile diverts parts of the West Wind Drift northwards as the Peruvian current.

24. Ans: D

Exp:

Importance of Continental Shelves

- Marine food comes almost entirely from continental shelves as they provide the richest fishing grounds.
- They are potential sites for fossil fuel reserves like petroleum and gas hydrates.
- Polymetallic nodules (manganese nodules; concentric layers of iron and manganese

hydroxides), which are found over some of the continental shelves, are good sources of various mineral ores like manganese, iron copper, gold etc.

- Their limited depth and gentle slope keep out cold undercurrents and thereby increase the height of tides. This sometimes hinders shipping and other marine activities since ships can only enter and leave port on the tide typically ends at a very steep slope, called the shelf break.
- The continental shelves are covered with variable thicknesses of sediments brought down by rivers, glaciers etc.
- Massive sedimentary deposits received over a long time by the continental shelves, become the source of fossil fuels [Petroleum].
- The shelf is formed mainly due to submergence of a part of a continent relative rise in sea level

25. Ans: C

Exp:

- Ocean currents can also be classified based on temperature : as cold currents and warm currents.
- Statement 1 is correct: cold currents bring cold water into warm water areas. These currents are usually found on the west coast of the continents in the low and middle latitudes (true in both hemispheres) and on the east coast in the higher latitudes in the Northern Hemisphere
- Statement 2 is correct: Warm currents bring warm water into cold water areas and are usually observed on the east coast of continents in the low and middle latitudes (true in both hemispheres). In the northern hemisphere they are found on the west coasts of continents in high latitudes.
- Source:
<https://ncert.nic.in/ncerts/l/kegy214.pdf>

26. Ans: D

Exp:

- Point 1 is correct: Before reaching the earth's surface about 14% of the incoming solar radiation is absorbed mainly by ozone followed by water vapour, carbon dioxide , etc.
- Presence of clouds, dust particles in the atmosphere affect the distribution of insolation on the earth's surface.
- Point 2 is correct: Due to revolution of the earth, the earth is farthest from the Sun on 4th July (aphelion) and nearest to the earth on 3rd January (perihelion), therefore the annual insolation received by the earth on 3rd January is slightly more than the amount on 4th July.
- However, this variation in the solar output does not have a noted effect on daily weather changes on the surface of the earth.
- Point 3 is correct: The capacity of a surface to reflect the sun's energy is called albedo.
- High albedo has a high percentage of reflection (snow and ice are good reflectors).
- Temperature will be higher at a given location if its surface has a low albedo rather than a high albedo.
- Similarly when the diameter of the dust particles or the vapour droplets is larger than the wavelengths of the incoming solar radiation, some portion of the incoming solar radiation is reflected back to space, this is called diffused reflection.
- Point 4 and 5 are correct: Tropical and subtropical areas having vertical rays of the sun and longer length of the day receive maximum insolation.
- On the other hand , middle and high latitude areas get less insolation, due to oblique angle of the sun's rays and shorter duration of the day.
- Oblique rays lose more energy, through the mechanism of scattering, reflection, absorption, as they traverse larger distance than vertical rays.

27. Ans: d

Exp:

- Statement 1 is correct: The position of the jet stream denotes the location of the strongest temperature contrasts between the different latitudes on the Earth surface.
- The jet stream results from the horizontal differences in temperature that occurs through a substantial distance in the troposphere.
- The resulting temperature differences produce a horizontal pressure gradient that drives geostrophic and gradient winds. They are marked by strong temperature gradients in the troposphere rather than surface temperature contrasts.
- Statement 2 is correct: Jet Streams plays an important role in determining local weather phenomena due to their ability to separate colder air and warmer air.
- The vertical movements of the warmer jet streams are more pronounced and as a result brings varied types of weather conditions to the area.
- Jet streams generally push air masses along with them, thus influencing the local weather conditions. For example, when the jet stream extends southwards in the winter (equatorward), it takes the cold polar air masses with it.
- Statement 3 is correct: It plays an important role in the onset, development and withdrawal of Indian monsoons.
- Onset of south-west monsoons in south Asia is because of the withdrawal of the southern branch of the subtropical jet stream to north of Himalayas, due to the heating of land and atmosphere in summer.
- Similarly the eastern jet stream enhances the rainfall in south-east Asia and Arabian Sea as summer heating causes development of easterly jet streams around 25 degree North latitude.
- Statement 4 is correct: Jet streams carry pollutants and other wastes over great distances with a rapid speed. It transports

a wide range of pollutants ranging from radioactive and volcanic dust to industrial and other common pollutants. Pilots also fly eastward to take advantage of the jet stream and reduce travel time and fuel usage.

28. Ans: C

Exp:

- Statement C is correct: The factors that are responsible for the distribution of planetary winds are:
 - o The rotation of the Earth.
 - o Latitudinal variations in atmospheric heating.
 - o Land and ocean configurations of the surface of the Earth.
 - o Emergence of pressure belts.
 - o The oscillation of pressure belts in accordance with the position of the sun.
- The factors like the gravitational pull of the moon and the sunspot cycle are not known to affect the distribution of planetary winds.

29. Ans: C

Exp:

- Statement 1 is incorrect: Frequency and destructivity of cyclones are greater in the Bay of Bengal as against the Arabian Sea.
- Statement 2 is correct: Since most of the rivers are east flowing in the peninsular part.
- There is a continuous mixing of the freshwater of the rivers with that of the ocean water in the Bay of Bengal region and hence mixing with the cold bottom water is prevented to some extent.
- This keeps the surface water warmer for the cyclone formation.
- Statement 3 is correct: Accumulated Cyclone Energy (ACE) is the measure of the destructiveness of a cyclone.
- Two or more cyclones occurring together have greater ACE and are more destructive.
- Events of simultaneous cyclones were witnessed in the Arabian Sea recently.

30. Ans: D

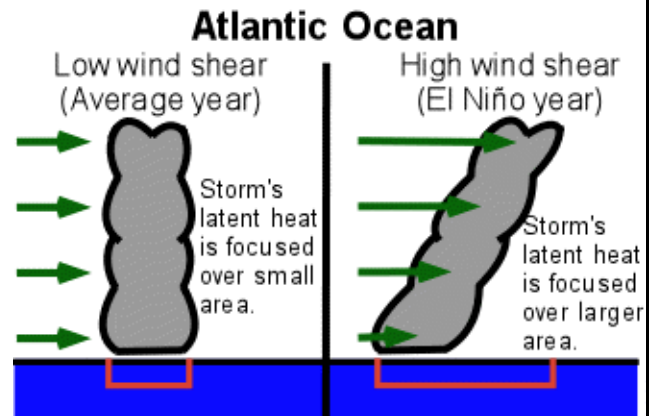
Exp:

- Statement 1 is incorrect - Conduction takes place when two bodies of unequal temperature are in contact with one another, there is a flow of energy from the warmer to cooler body.
- Statement 2 is incorrect - The air in contact with the earth rises vertically on heating in the form of currents and further transmits the heat of the atmosphere.
- This process of vertical heating of the atmosphere is known as convection.
- The convective transfer of energy is confined only to the troposphere
- Statement 3 is incorrect - The transfer of heat through horizontal movement of air is called advection.
- Horizontal movement of the air is relatively more important than the vertical movement.
- In middle latitudes, most of diurnal (day and night) variation in daily weather are caused by advection alone.
- In tropical regions particularly in northern India during summer season local winds called 'loo' is the outcome of advection process.

31. Ans: D

Exp:

- Statement 1 is correct: El-Nino results in floods in Peru while Pacific coast of Australia and Indonesia have abnormally dry conditions that forces the collapse of Agriculture with instances of Forest fire.
- Statement 2 is correct: During an El-Nino year, fewer hurricanes form over the Atlantic Ocean, the Caribbean Sea and the Gulf of Mexico due to increased wind shear.
- The increased wind shear helps to prevent tropical disturbances from developing into hurricanes.



- Statement 3 is correct: During El-Nino year sea surface temperature of western Indian Ocean increases and this leads to bleaching of corals.
- Such large scale bleaching was seen in 1998 and recently as well.
- Reference:
<https://www.firstpost.com/tech/science/akshadweeps-corals-are-dying-and-theyll-take-the-islandsinhabitants-with-them-5402301.html>
[http://ww2010.atmos.uiuc.edu/\(Gh\)/guides/mtr/hurr/enso.xml#:~:text=The%20primary%20Exp:%20for%20the,over%20the%20Caribbean%20and%20Atlantic.](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/enso.xml#:~:text=The%20primary%20Exp:%20for%20the,over%20the%20Caribbean%20and%20Atlantic.)

32. Ans: A

Exp:

- Statement 1 is correct: The Savanna are the tropical grasslands characterized by a distinct wet and dry season.
- They are most developed in Sudan and hence also called the Sudan climate.
- They are found in West African Sudan, Eastern Africa, and the southern parts of Africa above the tropic of Capricorn.
- There are two distinct regions of Savanna both North and South of the equator in South America.
- Llanos are found near Orinoco basin whereas Campos are found in the Brazilian highlands.
- Statement 2 is incorrect: The dominant winds in the Savanna regions are the Trade winds which bring rainfall to the coastal districts of these areas.

33. Ans: D

Exp:

- Statement 1 is incorrect: The Mediterranean regions are characterized by the warm, dry summers and cool, moist winters.
- The rainfall in the Mediterranean regions occurs in winter months.
- Despite the rainfall, the growth is slow during the winters. The climate of the Mediterranean regions supports the growth of a wide variety of crops.
- Statement 2 is incorrect: Balearic Islands belonging to Spain are located above Algeria in the Mediterranean Sea. They are located in the Western part of the Mediterranean Sea and not at the Center

34. Ans: A

Exp:

- Statement 1 is correct: The Warm Temperate Eastern Margins are also called the China type of climate. It is found on the Eastern margins of the continents in the temperate regions.
- The summers are moist and warm, and the winters are cool and dry with maritime influence.
- There is evenly distributed rainfall throughout the year.
- Statement 2 is incorrect: The Gulf climate is found along the temperate eastern margins in South-east USA along the borders of the Gulf of Mexico and hence is also called as the Gulf Climate.
- Statement 3 is incorrect: The grasslands of Steppes are characterized by the absence of trees with shorter grasses whereas the grasslands of Savanna are characterized by tall grasses with short trees.

35. Ans: B

Exp:

- Statement 1 is incorrect: Narrowness of the continents in the Southern Hemisphere are responsible for reducing the severity of the winters due to the maritime influence.

- Regions with Siberian climates are present in the Cool Temperate Continental areas and are absent in the Southern Hemisphere.
- Coniferous trees can withstand such cold temperatures and are hence found in the Siberian regions.
- However, in the Southern Hemisphere such trees are not totally absent but can be seen in the uplands of South Chile, New Zealand, Tasmania, southeast Australia.
- Statement 2 is incorrect: Pine, Fir, Spruce are the common coniferous forests found in the Siberian areas.
- Tundra regions comprise the lowest form of vegetation in the form of lichens, mosses, etc.
- Statement 3 is correct: Laurentian climates are the cool temperate eastern margins of the continents in the Northern Hemisphere.
- They are found only in certain areas of North America and Asia (near China, Korea, Siberia, north Japan).
- They are absent totally in the southern hemisphere.

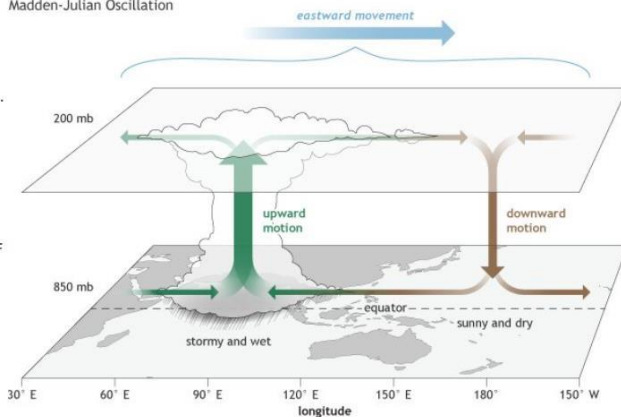
36. Ans: C

Exp:

- Statement C is correct: The above description is of British type of climate. It is also referred to as the Cool Temperate Western Margins and is experienced in Britain and the low lying areas of north west Europe.
- The mean annual temperature ranges between 5 to 15 degree C and seldom rises beyond 18 degrees.
- It is characterized by high rainfall throughout the year owing to the cyclonic activity with the peak rainfall occurring during winter or autumn months.
- These areas are under the influence of westerlies and have warm summers.
- The dominant trees are the deciduous trees which shed their leaves in the winter to avoid frost and snow.
- They are the industrialized and advanced areas of the world.

37. Ans: A**Exp:**

Madden-Julian Oscillation



- Statement 1 is correct and 2 is incorrect: An MJO is an oceanic-atmospheric phenomenon which affects weather activities across the globe. It brings major fluctuation in tropical weather on weekly to monthly timescales.
- The MJO can be defined as an eastward moving 'pulse' of clouds, rainfall, winds and pressure near the equator that typically recurs every 30 to 60 days. It's a traversing phenomenon and is most prominent over the Indian and Pacific Oceans.
- Statement 3 is incorrect: The Indian Ocean Dipole (IOD), El Nino and MJO are all oceanic and atmospheric phenomena, which affect weather on a large scale.
- The El-Nino is known to cause droughts in India. However if the periods of El Nino overlap with the convective phase of the Madden Julian oscillations, the effect of El Nino can be reduced to some extent especially in the Arabian Sea cost regions where it rains heavily when the MJO passes over the Indian Ocean. But the el Nino's impact is felt across India while the madden-julian oscillation's impact is limited to only some parts of India for a period of 30 to 60 days. Therefore, a complete nullification is not possible.

38. Ans: A**Exp:**

- Statement 1 is correct: Norwesters are isolated rainfall and thunderstorm events

which occur in India and Bangladesh, often with violent hurricane-speed winds.

- Typically, such storms originate in a low-pressure area during the peak summer season.
- The Low pressure intensifies when the sun beats down on the region. Therefore, they generally occur just before sunset or just a few hours after it, when thick dark black clouds start appearing over the South Western sky and then bring gale-speed wind with torrential rain, often with hail, but spanning only a short period of time.
- Statement 2 is incorrect: Kal Baisakhi (Norwesters in the Gangetic Plains) originates over Bihar and Jharkhand area, in the chota nagpur plateau and moves eastwards and strikes West Bengal and Odisha.
- These are extremely severe in nature and take Chhattisgarh under its purview as well.
- However, they are also common in Kerala, Tamil Nadu and coastal Karnataka. The Mango Showers or the CHERRY BLOSSOM SHOWERS of Kerala in the month of April and May are examples of norwesters .
- Statement 3 is incorrect: The rainfall in these storms is beneficial for pre-kharif crops grown in india.
- The tea cultivated in Assam and the jute and rice and tea cultivated in West Bengal and Bangladesh benefit from these showers.
- As a matter of fact, the reason they are named Mango showers or cherry blossom showers in the South Indian States is because they help and their ripening.

39. Ans: D**Exp:**

- Statement 1 is Incorrect : India receives rainfall during two seasons. About 75 per cent of the country's annual rainfall is received from the Southwest monsoon between June and September.
- North- East Monsoon occurs during October to December, and is confined to the Southern peninsula. It is also called the

winter monsoon and it is important for Tamil Nadu, Puducherry, coastal Andhra Pradesh etc.

- Statement 2 is Incorrect : North- East Monsoon Winds characterized pleasant seasons with low temperature and low humidity and clear skies.
- They do not give extreme rain to any part of India except Tamil Nadu Coast.
- On the Other hand, Retreating South West monsoon winds are characterized by Oppressive heat and humidity known as "October Heat".
- North East Monsoon winds blow from the North east Direction from the Land to the sea.
- Retreating South West Monsoon winds blow from the South West direction but are not strong enough to blow right into the northern plains.
- They withdraw in stages which results in decreasing rains

40. Ans: A

Exp:

- The Gold Coast derived its name since it was rich in gold, petroleum, sweet crude oil and natural gas, which was situated in West Africa in the Gulf of Guinea.
- Ivory Coast, also known as Côte d'Ivoire, officially the Republic of Côte d'Ivoire, is a country located on the south coast of West Africa.
- The name "Ivory Coast" reflected the major trade that occurred on that particular stretch of the coast: the export of ivory.
- Grain Coast, present in the west coast of Gulf of Guinea and extends till Liberia and derives its name from the spice trade.
- The Slave Coast is a historical name for that part of coastal West Africa along the Bight of Benin. It derives its name from the Atlantic slave trade where the africans are taken into slave trade from the early 16th century to the late 19th century.

41. Ans: B

Exp:



- The black soils are generally argillaceous (clayey), deep and impermeable. They swell and become sticky when wet (rainy season) and shrink when dried. So, during the dry season, these soils develop wide cracks (10-15 cm). This facilitates oxygenation of the soil to sufficient depths. Thus, there occurs a kind of self ploughing.
- Because of this character of slow absorption and loss of moisture, the black soil retains the moisture for a very long time, which helps the crops, especially the rain-fed ones, to sustain even during the dry season.
- The soil thus has extraordinary fertility.

42. Ans: B

Exp:

- Option 1 is correct: Alluvial soils are formed mainly due to silt deposited by Indo-GangeticBrahmaputra rivers.
- In coastal regions some alluvial deposits are formed due to wave action.
- Rocks of the Himalayas form the parent material. Thus the parent material of these soils is of transported origin.
- They are the largest soil group covering about 15 lakh sq km or about 46 per cent of the total area.
- They support more than 40% of India's population by providing the most productive agricultural lands.
- Option 2 is incorrect: These are soils with large amounts of organic matter and considerable amount of soluble salts.
- The most humid (not arid) regions have this type of soil. They are black, heavy and highly acidic.

- Large amounts of carbon, fixed from the atmosphere into plant tissues through photosynthesis, are locked away in peat soils, representing a valuable global carbon store.
- Option 3 is correct: After irrigation, the water added to the soil is used by the crop or evaporates directly from the moist soil.
- The salt, however, is left behind in the soil. If not removed, it accumulates in the soil; this process is called salinization.
- Soil salinization is the key issue in irrigated arid and semi-arid areas (as they facilitate Capillary Action) that have substantial impact on plant productivity.
- Option 4 is correct: These soils occupy about 2.85 lakh sq km or 8.67% of the total land area of India. They are mainly heterogeneous soils found on the hill slopes covered by forests.
- The formation of these soils is mainly governed by the characteristic deposition of organic matter derived from forests and their character changes with parent rocks, ground configuration and climate.
- The forest soils are very rich in humus. They are deficient in potash, phosphorus and lime. They require a good deal of fertilizers for high yields.
- They are suitable for plantations of tea, coffee, spices and tropical fruits in peninsular forest region

43. Ans: D

Exp:

- All options are correct
- Precision agriculture (PA), satellite farming is a farming management concept based on observing, measuring and responding to inter and intra-field variability in crops.
- The goal of precision agriculture research is to optimize returns on inputs while preserving resources.
- Precision agriculture has been enabled by advent of unmanned aerial vehicles, GPS and GNSS, Robotics, Internet of Things and Artificial Intelligence.
- The various advancements which have already taken place are:

1. Self-steering tractors have existed for some time now with equipment working like a plane on autopilot. The tractor does most of the work, with the farmer stepping in for emergencies. Technology is advancing towards driverless machinery programmed by GPS to spread fertilizer or plough land.
2. The Internet of things is the network of physical objects outfitted with electronics that enable data collection and aggregation. IoT comes into play with the development of sensors and farm-management software. For example, farmers can spectroscopically measure nitrogen, phosphorus, and potassium in liquid manure, which is notoriously inconsistent.
- Monitoring technology can be used to make beekeeping more efficient. Monitoring of a honeybee colony's health via wireless temperature, humidity and CO₂ sensors helps to improve the productivity of bees, and to read early warnings in the data that might threaten the very survival of an entire hive
3. Machine learning is commonly used in conjunction with drones, robots, and internet of things devices. It allows for the input of data from each of these sources. The computer then processes this information and sends the appropriate actions back to these devices. This allows for robots to deliver the perfect amount of fertilizer or for IoT devices to provide the perfect quantity of water directly to the soil.
4. Telemetry is the in situ collection of measurements or other data at remote points and their automatic transmission to receiving equipment. Products now allow growers to remotely monitor and control nearly every facet of their irrigation operation. The systems save water, time, fuel, and wear and tear on vehicles.
5. Smartphones come with many useful applications already installed, including the camera, microphone, GPS, and

accelerometer. There are also applications made dedicated to various agriculture applications such as field mapping, tracking animals, obtaining weather and crop information.

44. Ans: D

Exp:

- Options 1,2,3,5 and 6 are correct
- Mission for Integrated Development of Horticulture (MIDH) is a Centrally Sponsored Scheme for the holistic growth of the horticulture sector. While the Government of India (GOI) contributes 85% of total outlay for developmental programmes in all the states except the states in North East and Himalayas, 15% share is contributed by State Governments.
- In the case of North Eastern States and Himalayan States, GOI contribution is 100%.
- MIDH will work closely with the National Mission on Sustainable Agriculture (NMSA) towards development of Micro-Irrigation for all horticulture crops and protected cultivation on farmers' fields.
- It aims to Promote holistic growth of horticulture sector, including bamboo and coconut through area based regionally differentiated strategies, which includes research, technology promotion, extension, post harvest management, processing and marketing, in consonance with comparative advantage of each State/region and its diverse agro-climatic features.
- The various crops/plants/trees covered under the program are:
 - Fruits and vegetables
 - Root & tuber crops
 - Mushrooms
 - Spices
 - Flowers
 - Aromatic plants
 - Coconut
 - Cashew
 - Cocoa

- Bamboo

45. Ans: A

Exp:

- Statement 1 is incorrect: Initially peat is converted into lignite or 'brown coal' – these are coal types with low organic maturity.
- In comparison to other coals, lignite is quite soft and its colour can range from dark black to various shades of brown.
- Lignite Contains 40 to 55 percent carbon (higher than Peat but lower than bituminous coal) and has a very high moisture content.
- Indian lignite deposits occur in the Tertiary sediments in the southern and western parts of peninsular shield particularly in Tamil Nadu, Puducherry, Kerala, Gujarat & Rajasthan and also in Jammu & Kashmir.
- Tertiary Coal (formed 60 – 15 million years ago) is inferior in quality than Gondwana Coal which in turn is inferior in quality than Carboniferous coal.
- Statement 2 is incorrect: Anthracite coal is the best quality, hard coal with 80 to 95 percent carbon.
- Various chemical and physical changes cause Lignite coals to become harder and blacker, forming the 'bituminous' or 'hard coals'.
- Under the right conditions and progressive contrivance of organic maturity, finally results in the formation of anthracite.
 - o Anthracite coal is the best quality, hard coal with 80 to 95 percent carbon. It has very little moisture and volatile matter and burns with a short blue flame (indication of complete combustion)
 - o In India, it is found only in Jammu and Kashmir and that too in small quantities. It is are generally absent in the Gondwana rocks
- Statement 3 is correct: Peat contains less than 40 to 55 per cent carbon and has more impurities. It contains sufficient

volatile

45,



matter and lots of moisture gives out a lot of smoke when burnt and hence is a dangerous pollutant.

- Peat deposits occur in Nilgiri hills and Kashmir valley (in the alluvium of the Jhelum).
- Statement 4 is incorrect: Gondwana coal contributes an overwhelmingly large proportion of both the reserves and production of coal, accounting for 98% of the total reserves and 99% of the production of coal in India. It is the storehouse of India's metallurgical as well as superior quality coal.
- Out of the 113 major coalfields found all over India, 80 are located in the rock systems of the lower Gondwana age.
 - o It includes coking as well as non coking and bituminous as well as nonbituminous coal.
- The volatile compounds and ash are present in too large a proportion to allow the carbon percentage to rise above 55 to 60%.
- The Gondwana coal is almost free from moisture but it contains Sulphur and phosphorus in small variable quantities.

46. Ans: A

Exp:

- Options 1,2 and 5 are correct: Footloose industry is a general term for an industry that can be placed and located at any location without effect from factors of

production such as resources, land, labour, and capital.

- These industries often have spatially fixed costs, which means that the costs of the products do not change despite where the product is assembled.
- These industries can be located at a wide variety of places, as these are not weight-losing nor raw-material-specific.
- They largely depend on component parts which can be obtained anywhere.
- They produce in small quantities and also employ a small labour force.
- These are generally not polluting industries.
- The essential factor in their location is accessibility by road network.
- Examples include
 - Diamonds cutting
 - Computer chips (Silicon Valley)
 - Mobile Manufacturing (foxconn, Taiwan)
 - Automobile Manufacturing (parts imported from Germany and Assembled in india)
- Options 3 and 4 are incorrect: The production of one tonne of aluminium requires approximately 6 tonnes of Bauxite and variable quantities of caustic soda lime, fluoride, anthracite, etc.
- About 30 to 40% of the production cost of Aluminium is accounted for by electricity alone. This indicates that the availability of bauxite and electricity are the two most significant factors which influence the localisation of the industry.
- Similarly the localisation of the Fertilizer industry is closely related to the petrochemicals industry.
- About 70% of the plants producing nitrogenous fertilizer use naphtha as basic raw material. That is why most of the fertilizer plants are located near the oil refineries.
- Some fertilizer plants draw that feedstock from Steel slag as well as coke and lignite resources.

47. Ans: a

Exp:

- Statement 1, 2 & 3 are correct
- Surface water percolates downward through the rocks below the Earth's surface to hightemperature regions surrounding a magma reservoir
 - o This water is heated, becomes less dense, and rises back to the surface along fissures and cracks in the form of Geysers, fumaroles (also called solfataras), and hot springs
- Hot Springs : Springs produced by geothermally heated groundwater. They are very colourful due to presence of cyanobacteria of different colours. They are found all across the world. They have Medicinal value and can be used to harness geothermal energy
 - o Example : Tattapaani (Haryana)
- Geysers : Spring characterised by intermittent discharge of water ejected turbulently. Steam is also a part of ejection. They show distinct colour due to presence of silica deposits. They are found in very few regions.
 - o Iceland is famous for its geysers
 - o Ex : Old faithful (USA)
- Fumaroles : They emit mixtures of steam and other gases. These are fed by conduits that pass through the water table before reaching the surface of the ground
 - o Example : Black Growler steam vents

48. Ans: c

Exp:

- Statement 1 is correct : Gorges have equal width at both top and bottom while Canyons have a wider top than its bottom. Both are Erosional landforms by running water.
- Statement 2 is Correct : Waterfall formation involves erosion of soft rock more quickly undercutting the hard rock which eventually crashes into the plunge pool, swirl around and cause more erosion. This process repeat itself and waterfall moves upstream.

- As the waterfall retreats, a steep sides gorge is formed
- Statement 3 is correct : Incised meanders occur when a river's base level has fallen giving the river a large amount of vertical erosion power. They are of two types
 - o Entrenched Meanders : form when river downcuts particularly quickly, due to which there is little opportunity for lateral erosion and hence symmetrical shape
 - o Ingrown Meanders : Form when river downcuts at less rapid pace giving the river the opportunity to erode laterally as well as vertically
- Statement 4 is correct : Alluvial forms is formed when a river flows out of a mountain valley. The river becomes wider and more slower and sediment is deposited in a fan shape. Hence all collection at one place without any Stratification while in Delta, over a long way, coarser material settle out first and finer silt and clay are carried further
- Statement 5 is Incorrect : Point bars or meander bars are sediments deposited in linear fashion by flowing rivers.
- Statement 6 is Correct : In the middle or mature course, River has more energy and a high volume of water. river channel widens and deepens. Large channel means there is less friction , so water flows faster

49. Ans: c

Exp:

- Statement 1 is correct: The move was approved by the cabinet in october 2020 and is likely to benefit around 3.7 lakh workers dependent on the jute sector.
- The government is required to consider and provide for the compulsory use of jute packaging material.
- Statement 2 is incorrect: It thrives in tropical LOWLANDS areas with 60-90 percent humidity. It is a rainfed crop with little need of fertilizer and pesticide.
- Statement 3 is correct: The cultivation of jute in India is confined to the eastern region of the country.

- Yearly flooding and good rainfall provides good natural conditions for growth of the plant. The first jute mill was established in Rishra (WB) in the year 1855.

50. Ans: D

Exp:

- Statement 1 is Incorrect : India has no significant reserves of Uranium. All needs are met through imports.
- India imports uranium from Russia, Kazakhstan, France.
- India has made several bilateral arrangements to meet her demand of Uranium for peaceful energy production as India is not a member of the Nuclear Proliferation treaty.
- Some quality reserves were recently discovered in parts of Andhra Pradesh and Telangana between Seshachalam forest and Sresailam.
- Statement 2 is Incorrect : Thorium is derived from monazite sand. Thorium deposits are found in Kerala, Jharkhand, Bihar, Tamil Nadu, and Rajasthan. But the largest concentration of monazite sand is on the Kerala coast.
- Over 15,200 tonnes of uranium and Thorium is estimated to be contained in monazite.
- Thorium cannot in itself power a reactor; unlike natural uranium, it does not contain enough fissile material to initiate a nuclear chain reaction. Thus the Thorium based nuclear reactor forms the third stage of India's Three stage nuclear power programme.
- Statement 3 is Incorrect. Beryllium oxide is used as a 'moderator' in nuclear reactors of power plants.
- India has sufficient reserves of beryllium to meet its requirement of atomic power generation. Its reserves are in the states of Rajasthan, Jharkhand, Chhattisgarh , Andhra Pradesh and Tamil Nadu.

51. Ans: A

Exp:

- Statement 3 is incorrect: He should have completed 35 years of age.

Vice President Election

To be eligible for election as Vice-President, a person should fulfill the following qualifications:

- He should be a citizen of India.
- He should have completed 35 years of age.
- He should be qualified for election as a member of the Rajya Sabha.
- President or Vice-President of the Union, the governor of any state and a minister for the Union or any state is not deemed to hold any office of profit and hence qualified for being a candidate for Vice-President.
- The election of a person as Vice-President cannot be challenged on grounds that the Electoral College was incomplete (i.e., existence of any vacancy among the members of Electoral College).

52. Ans: B

Exp:

- Option (b) is correct

DPSP Implementation

- The 73rd Amendment Act (1992) has been enacted to provide constitutional status and protection to these Panchayati Raj Institutions.
- It aims to achieve Gandhiji's dream of every village being a republic and self-sufficient.
- The adherence to policy of non-alignment and Panchsheel will promote international peace and security.
- The Maternity Benefit (Amendment) Act 2017 has been made to protect the interests of women workers.
- National Commission for Backward Classes will promote and protect the social, educational and economic interests of the weaker sections of the society.
- Untouchability (Offences) Act, 1955 was passed to give effect of the Article 17 (Fundamental Right)

53. Ans: C

Exp:

- Statement 1 is incorrect: The linguistic minorities are determined on a state-wise basis.
- Statement 2 is incorrect: The Seventh Constitutional Amendment Act of 1956 inserted a new Article 350-B in Part XVII of the Constitution.

Linguistic Minorities

- A linguistic minority is a group of people whose mother tongue is different from that of the majority in the state or part of a state. Thus, the linguistic minorities are determined on a state-wise basis.
- Originally, the Constitution of India did not make any provision with respect to the Special Officer for Linguistic Minorities.
- Later, the States Reorganization Commission (1953-55) made a recommendation in this regard.
- Accordingly, the Seventh Constitutional Amendment Act of 1956 inserted a new Article 350-B in Part XVII of the Constitution.
- It must be noted here that the Constitution does not specify the qualifications, tenure, salaries and allowances, service conditions and procedure for removal of the Special Officer for Linguistic Minorities.

54. Ans: D

Exp:

- Statement 2 is incorrect: Presidential form of government gives narrow representation.

Presidential Government

- Presidential form of government gives narrow representation.
- Parliamentary form of government gives wider representation and that is one of the reasons for its adoption by our constitutional makers.
- Once the president is elected he can rule with/without any party support until the next election. So it is the stable government.

- The doctrine of separation of powers is the basis of the presidential system. Ex: In U.S.A. President cannot dissolve the House of Representatives the lower house of the Congress.
- Presidential form of government also characterized by Single executive, Nonresponsibility, Political homogeneity may not exist, Single membership, Domination of president.

55. Ans: C

Exp:

- Option (c) is correct

Attorney General for India

- The Constitution (Article 76) has provided for the office of the Attorney General for India.
- He is the highest law officer in the country.
- Comptroller and Auditor General of India is not the highest law officer in the country.
- The Attorney General (AG) is appointed by the president.
- He must be a person who is qualified to be appointed a judge of the Supreme Court.
- The term of office of the AG is not fixed by the Constitution. Further, the Constitution does not contain the procedure and grounds for his removal.
- Judge of High court removal procedure is given in constitution.
- He holds office during the pleasure of the president.

56. Ans: D

Exp:

- All statements are correct

The duties and functions of the CAG

- He audits the accounts related to all expenditure from the Consolidated Fund of India, consolidated fund of each state and consolidated fund of each union territory having a Legislative Assembly.
- He audits all expenditure from the Contingency Fund of India and the Public Account of India as well as the contingency

fund of each state and the public account of each state.

- He audits all trading, manufacturing, profit and loss accounts, balance sheets and other subsidiary accounts kept by any department of the Central Government and state governments.
- He audits the receipts and expenditure of the Centre and each state to satisfy himself that the rules and procedures in that behalf are designed to secure an effective check on the assessment, collection and proper allocation of revenue.

He audits the receipts and expenditure of the following:

- All bodies and authorities substantially financed from the Central or state revenues.
- Government companies.
- Other corporations and bodies, when so required by related laws.
 - o He audits all transactions of the Central and state governments related to debt, sinking funds, deposits, advances, suspense accounts and remittance business.
- He also audits receipts, stock accounts and others, with approval of the President, or when required by the President.
- He audits the accounts of any other authority when requested by the President or Governor. For example, the audit of local bodies.
- He advises the President with regard to prescription of the form in which the accounts of the Centre and the states shall be kept (Article 150).
- He submits his audit reports relating to the accounts of the Centre to President, who shall, in turn, place them before both the Houses of Parliament (Article 151).
- He submits his audit reports relating to the accounts of a state to governor, who shall, in turn, place them before the state legislature (Article 151).
- He ascertains and certifies the net proceeds of any tax or duty (Article 279).

- His certificate is final. The 'net proceeds' means the proceeds of a tax or a duty minus the cost of collection.
- He acts as a guide, friend and philosopher of the Public Accounts Committee of the Parliament.
- He compiles and maintains the accounts of state governments.
- In 1976, he was relieved of his responsibilities with regard to the compilation and maintenance of accounts of the Central Government due to the separation of accounts from audit, that is, departmentalization of accounts.
- He audits the accounts of Panchayati Raj Institutions and Urban Local Bodies but with the permission of the State government.

57. Ans: A

Exp:

- Statement 3 is incorrect: Chairman of Rajya Sabha does not preside over a joint sitting as he is not a member of either House of Parliament.

Joint sitting of Parliament

As per Article 108 of Constitution, a Joint session of Parliament can be summoned in the following situations:

- If after a Bill has been passed by one House and transmitted to the other House: Bill is rejected by the other House; or Houses have finally disagreed as to the amendments to be made in the Bill;
- More than six months elapse from the date of the reception of the Bill by the other House without the Bill being passed by it.
- However, in calculating period of six months, those days are not considered when house is prorogued or adjourned for more than 4 consecutive days.
- In the above three situations, the president can summon both the Houses to meet in a joint sitting for the purpose of deliberating and voting on the bill.

Who preside the Joint sitting?

- The Speaker of Lok Sabha presides over a joint sitting of the two Houses and the Deputy Speaker, in his absence.
- If the Deputy Speaker is also absent from a joint sitting, the Deputy Chairman of Rajya Sabha presides. If he is also absent, such other person as may be determined by the members present at the joint sitting, presides over the meeting.
- Chairman of Rajya Sabha does not preside over a joint sitting as he is not a member of either House of Parliament.

Conduct of business:

- The joint sitting is governed by the Rules of Procedure of Lok Sabha and not of Rajya Sabha.
- The quorum to constitute a joint sitting is one-tenth of the total number of members of the two Houses.
- The bills are passed by simple majority of total members present and voting. In such case bill shall be considered as deemed to have been passed by both the houses of parliament.
- However, in case of joint sitting of house, new amendments cannot be proposed in the bill except those which has been agreed by one house and refused by another.
- Only those amendments can be proposed to house which are relevant to the matter of disagreement.
- The decision of presiding officer shall be final in respect of admissibility of amendments.

Exception to joint sittings:

- Provision of joint sitting is applicable to ordinary bills or financial bills only and not to money bills or Constitutional amendment bills.

58. Ans: B

Exp

- Statement 1 is incorrect: President can either suspend or dissolve the state legislative assembly.

President's rule and Judicial Review

- When the President's Rule is imposed in a state, the President dismisses the state council of ministers headed by the chief minister.
- The state governor, on behalf of the President, carries on the state administration with the help of the chief secretary of the state or the advisors appointed by the President.
- Further, the President either suspends or dissolves the state legislative assembly.
- The 38th Amendment Act of 1975 made the satisfaction of the President in invoking Article 356 final and conclusive which could not be challenged in any court on any ground. But, this provision was subsequently deleted by the 44th Amendment Act of 1978 implying that the satisfaction of the President is not beyond judicial review.

S. R Bommai case (1994)

In S. R Bommai case (1994), the following propositions have been laid down by the Supreme Court on imposition of President's Rule in a state under Article 356:

- The presidential proclamation imposing President's Rule is subject to judicial review.
- The satisfaction of the President must be based on relevant material.
- The action of the President can be struck down by the court if it is based on irrelevant or extraneous grounds or if it was found to be mala fide or perverse.
- Burden lies on the Centre to prove that relevant material exist to justify the imposition of the President's Rule.
- The court cannot go into the correctness of the material or its adequacy but it can see whether it is relevant to the action.
- If the court holds the presidential proclamation to be unconstitutional and invalid, it has power to restore the dismissed state government and revive the state legislative assembly if it was suspended or dissolved.

- The state legislative assembly should be dissolved only after the Parliament has approved the presidential proclamation.
- Until such approval is given, the president can only suspend the assembly.
- In case the Parliament fails to approve the proclamation, the assembly would get reactivated.
- Secularism is one of the 'basic features' of the Constitution. Hence, a state government pursuing anti-secular politics is liable to action under Article 356.
- The question of the state government losing the confidence of the legislative assembly should be decided on the floor of the House and until that is done the ministry should not be unseated.
- Where a new political party assumes power at the Centre, it will not have the authority to dismiss ministries formed by other parties in the states.
- The power under Article 356 is an exceptional power and should be used only occasionally to meet the requirements of special situations.

59. Ans: B

Exp:

- Statement 3 is incorrect: The representatives of princely states were to be nominated by the heads of the princely states.

Constituent Assembly

- The Constituent Assembly was constituted in November 1946 under the scheme formulated by the Cabinet Mission Plan.
- The total strength of the Constituent Assembly was to be 389. Of these, 296 seats were to be allotted to British India and 93 seats to the Princely States.
- Out of 296 seats allotted to the British India, 292 members were to be drawn from the eleven governors' provinces and four from the four chief commissioners' provinces, one from each.
- Each province and princely state (or group of states in case of small States) were to be allotted seats in proportion to their respective population.

- Roughly, one seat was to be allotted for every million population.
- Seats allocated to each British province were to be divided among the three principal communities—Muslims, Sikhs and general (all except Muslims and Sikhs), in proportion to their population.
- The representatives of each community were to be elected by members of that community in the provincial legislative assembly and voting was to be by the method of proportional representation by means of single transferable vote.
- The representatives of princely states were nominated by the heads of the princely states.
- According to the Indian Independence Act of 1947 the assembly was made a fully sovereign body, which could frame any Constitution it pleased.
- The act empowered the Assembly to abrogate or alter any law made by the British Parliament in relation to India.

60. Ans: C

Exp:

- Statement 1 is incorrect: 'Equality before Law' is the negative concept whereas; 'Equal Protection of Law' is positive concept.
- Statement 2 is incorrect: Both are available to the citizens as well as foreigners.

Equality before Law:

This concept is of British origin. It connotes:

- The absence of any special privileges in favour of any person.
- The equal subjection of all persons to the ordinary law of the land administered by ordinary law courts.
- No person (whether rich or poor, high or low, official or non-official) is above the law.

Equal Protection of Laws:

It has been taken from the American Constitution. It connotes:

- The equality of treatment under equal circumstances, both in the privileges

conferred and liabilities imposed by the laws.

- The similar application of the same laws to all persons who are similarly situated.
- The likes should be treated alike without any discrimination.
- Thus, the former is a negative concept while the latter is a positive concept.
- However, both of them aim at establishing equality of legal status, opportunity and justice.
- Article 14 is available to both citizens & foreigners within the territory of India.

61. Ans: D

Exp:

- All statements are correct

Doctrine of Incidental or Ancillary Powers

- Ancillary or incidental powers mean those powers that support the powers that are expressly conferred.
- There are some express powers given to both the Central and State Governments through the three lists specified in the Seventh Schedule.
- The doctrine of ancillary or incidental powers means that these express powers to legislate on a matter also consist of the power to legislate on an incidental or ancillary matter.
- Such a power is essential for the proper exercise of the expressly conferred legislative powers. For example, the power to legislate on banking would also include all the related powers to legislate on matters like functions of banks, the composition of their boards, relationship with RBI, etc.
- Similarly, the power to legislate on an entry dealing with forests would include the power of afforestation, deforestation, planning and management of forest as ancillary matters.
- The jurisprudence related to this doctrine focuses on such an interpretation of the words in the statute to provide them a liberal and the widest interpretation.
- This aids in the proper and effective functioning of the object of the legislature.

- But, this doctrine has a limited application.
- It gets invoked only in cases where there is a need for aiding the main matter of the legislation.
- The main idea behind this doctrine is to equip the legislature with all the necessary powers.
- In State of Rajasthan v G. Chawla case, the Apex Court held that “the power to legislate on a topic includes the power to legislate on an ancillary matter which can be said to be reasonably included in the topic”.
- The following provisions of the Constitution reflect the power to make law on incidental matters:
 - o Article 4 provides the power to make law on matters supplemental, incidental, and consequential to the law providing for adding of states under Article 2 and 3.
 - o Article 110 and 199 define money bill for both the Union and the States. It includes “any matter incidental to any of the matters specified in sub-clauses (a) to (f)” of the respective articles.
 - o Article 145 provides the power to the Supreme Court to make “rules as to the costs of and incidental to any proceedings in the Court and as to the fees to be charged in respect of proceedings therein”.
 - o Article 169 provides for the abolition or creation of Legislative Councils in States. This article includes the power to make rules “as may be necessary to give effect to the provisions of the law and may also contain such supplemental, incidental and consequential provisions as Parliament may deem necessary”.

62. Ans: C

Exp:

- Statement 1 is incorrect: Company's monopoly over trade with China and tea was ended by Charter Act of 1833.
- Statement 3 is incorrect: Charter Act of 1833 made East India Company a purely administrative body.

Charter Act of 1813

- In England, the business interests were pressing for an end to the Company's monopoly over trade in India because of a spirit of laissez-faire and the continental system by Napoleon by which the European ports were closed for Britain.

The 1813 Act sought to redress these grievances by the following provisions:

- The Company's monopoly over trade in India ended, but the Company retained the trade with China and the trade in tea.
- The Company's shareholders were given a 10.5 per cent dividend on the revenue of India.
- The Company was to retain the possession of territories and the revenue for 20 years more, without prejudice to the sovereignty of the Crown. Thus, the Constitutional position of the British territories in India was defined explicitly for the first time.
- Powers of the Board of Control were further enlarged.
- A sum of one lakh rupees was to be set aside for the revival, promotion and encouragement of literature, learning and science among the natives of India, every year. This was an important statement from the point of State's responsibility for education.
- The regulations made by the Councils of Madras, Bombay and Calcutta were now required to be laid before the British Parliament. The Constitutional position of the British territories in India was thus explicitly defined for the first time.
- Separate accounts were to be kept regarding commercial transactions and territorial revenues. The power of superintendence and direction of the Board of Control was not only defined but also enlarged considerably.
- It authorized the Local Governments in India to impose taxes on persons. They could also punish the persons for not paying taxes.

- Christian missionaries were also permitted to come to India and preach their religion.

63. Ans: D

Exp:

- Option (d) is correct

Definition of Law under Article 36

- According to Article 36, the term 'State' in Part IV has the same meaning as in Part III dealing with Fundamental Rights.
- Therefore, it includes the legislative and executive organs of the central and state governments, all local authorities and all other public authorities in the country.

64. Ans: A

Exp:

- Statement 3 is incorrect: Once approved by the Parliament, the emergency remains in force for a period of six months from the date of proclamation. In the case it is to be extended beyond six months, another prior resolution has to be passed by the Parliament. In this way, such an emergency continues indefinitely.

Revocation of the National Emergency

- The proclamation of Emergency must be approved by both the Houses of Parliament within one month from the date of its issue.
- Otherwise, it stands revoked after one month of its issuance.
- Every resolution approving the proclamation of emergency or its continuance must be passed by either House of Parliament by a special majority, that is, a majority of the total membership of that house, and a majority of not less than two-thirds of the members of that house present and voting.
- This special majority provision was introduced by the 44th Amendment Act of 1978. Previously, such a resolution could be passed by a simple majority of the Parliament.
- A proclamation of emergency may be revoked by the President at any time by a subsequent proclamation. Such a

proclamation does not require Parliamentary approval.

- Further, the President must revoke a proclamation if the Lok Sabha passes a resolution disapproving its continuation.
- If approved by both the Houses of Parliament, the emergency continues for six months and can be extended to an indefinite period with an approval of the Parliament for every six months.

65. Ans: A

Exp:

- Statement 3 is incorrect: The modified version of the objective resolution forms the Preamble of the present Constitution.

Objective resolution

- The objective resolution was moved by Pt. J.Nehru in 1946 It laid down the fundamentals and philosophy of the constitutional structure.
- It guaranteed and secured to all the people of India justice, social, economic and political; equality of status of opportunity, and before the law; freedom of thought, expression, belief, faith, worship, vocation, association and action, subject to law and public morality.
- It provided for adequate safeguards for minorities, backward and tribal areas, and depressed and other backward classes.

66. Ans: D

Exp:

- Statement 1 is incorrect: The procedure for Amendment of the Constitution and election of members of Rajya Sabha is borrowed from the South African Constitution.
- Statement 2 is incorrect: The features of freedom of Trade, commerce and intercourse and joint sitting of the two houses of Parliament is borrowed from the Australian Constitution.

Countries	Borrowed Features of Indian Constitution
Australia	Concurrent list Freedom of trade, commerce and intercourse

	Joint-sitting of the two Houses of Parliament
Canada	Federation with a strong Centre Vesting of residuary powers in the Centre Appointment of state governors by the Centre Advisory jurisdiction of the Supreme Court
Ireland	Directive Principles of State Policy Nomination of members to Rajya Sabha Method of election of the president
Japan	Procedure Established by law
Soviet Union (USSR) (now, Russia)	Fundamental duties Ideals of justice (social, economic and political) in the Preamble
UK	Parliamentary government Rule of Law Legislative procedure Single Citizenship Cabinet system Prerogative writs Parliamentary privileges Bicameralism
US	Fundamental rights Independence of judiciary Judicial review Impeachment of the president Removal of Supreme Court and High Court judges Post of vice-president

Germany (Weimar)	Suspension of Fundamental Rights during emergency
South Africa	Procedure for amendment in the Indian Constitution Election of members of Rajya

	Sabha
France	Republic Ideals of liberty, equality and fraternity in the Preamble

67. Ans: A

Exp:

- Statement 1 is incorrect: Indian constitution does not elaborately define the procedure for acquisition and loss of citizenship.
- Statement 2 is incorrect: The citizenship of any person be terminated by Central Government for the genuine reason.

Citizenship

- Indian constitution does not elaborately define the procedure for acquisition and loss of citizenship.
- It empowers Parliament to enact a law to provide for such matters.
- The Article 5 to 11 Under Part II, only identifies persons who became citizens of Indian at the commencement of Constitution.
- A persons' citizenship can be terminated if:
 - o citizen has shown himself by act or speech to be disloyal or disaffected towards the Constitution of India as by law established
 - o citizen has during any war in which India may be engaged, unlawfully traded or communicated with an enemy or been engaged in, or associated with, any business that was to his knowledge carried on in such manner as to assist an enemy in that war; or
 - o citizen has, within five years after registration or naturalisation, been sentenced in any country to imprisonment for a term of not less than two years; or
 - o Citizen has been ordinarily resident out of India for a continuous period of seven years and during that period, has neither been at any time a student of any educational institution in a country outside India or in the service of a Government in India or of an international organisation.

- A minor who is citizen of India by virtue of descent and is also citizen of another country ceases to be Indian citizen if he/she does not renounce citizenship of other country within 6 months of his/her attaining full age.

68. Ans: B

Exp:

- Option (b) is correct

Independence of Supreme Court Judges

- The Constitution has made the following provisions to safeguard and ensure the independent and impartial functioning of the Supreme Court:
 - o Mode of appointment
 - o Security of tenure
 - o Fixed service conditions
 - o Administrative Expenses charged on the consolidated fund
 - o Conduct of judges cannot be discussed
 - o Ban on practice in any court after retirement
 - o Power to punish for its contempt
 - o Freedom to appoint its staff
 - o Its jurisdiction cannot be curtailed
 - o Separation from Executive
 - o The Constitution doesn't prohibit the judges of the Supreme Court and high courts from taking any post-retirement jobs and it also doesn't restrict the power of government to appoint any retired judges for any commissions or tribunals etc. The government appoints retired higher judiciary judges as heads of various commissions.

69. Ans: A

Exp:

- Option (a) is correct

Original Jurisdiction

- As a Federal court, the Supreme Court decides disputes between different units of the Indian Federation. More elaborately, any dispute between: the Centre and one or more states; or the Centre and any state or states on one side and one or more states on the other; or between two or more states.

- In the above federal disputes, the Supreme Court has exclusive original jurisdiction.

Further, this jurisdiction of the Supreme Court does not extend to the following:

- A dispute arising out of any pre - Constitution treaty, agreement, covenant, engagement, sanad or other similar instrument.
- A dispute arising out of any treaty, agreement, etc., which specifically provides that the said jurisdiction does not extend to such a dispute.
- Inter-state water disputes.
- Matters referred to the Finance Commission.
- Adjustment of certain expenses and pensions between the Centre and the states.
- Ordinary dispute of Commercial nature between the Centre and the states.
- Recovery of damages by a state against the Centre.
- Habeas Corpus (or any other writs related to the Fundamental Rights) can be issued by both High court and Supreme Court.

70. Ans: B

Exp:

- Statement 3 is incorrect: The President may either give or withhold assent to a Money Bill.

Money Bill

- Article 110 of the Constitution deals with the definition of money bills. It states that a bill is deemed to be a money bill if it contains 'only' provisions dealing with all or any of the following matters:
- The imposition, abolition, remission, alteration or regulation of any tax;
- The regulation of the borrowing of money by the Union government;
- The custody of the Consolidated Fund of India or the contingency fund of India, the payment of moneys into or the withdrawal of money from any such fund;

- The appropriation of money out of the Consolidated Fund of India;
- Declaration of any expenditure charged on the Consolidated Fund of India or increasing the amount of any such expenditure;
- The receipt of money on account of the Consolidated Fund of India or the public account of India or the custody or issue of such money, or the audit of the accounts of the Union or of a state; or
- Any matter incidental to any of the matters specified above.
- If any question arises whether a bill is a money bill or not, the decision of the Speaker of the Lok Sabha is final. His decision in this regard cannot be questioned in any court of law or in the either House of Parliament or even the president. When a money bill is transmitted to the Rajya Sabha for recommendation and presented to the president for assent, the Speaker endorses it as a money bill.
- A money bill can only be introduced in the Lok Sabha and that too on the recommendation of the President.
- After a money bill is passed by the Lok Sabha, it is transmitted to the Rajya Sabha for its consideration.
- The Rajya Sabha has restricted powers with regard to a money bill.
- It cannot reject or amend a money bill. It can only make the recommendations.
- It must return the bill to the Lok Sabha within 14 days, with or without recommendations.
- The Lok Sabha can either accept or reject all or any of the recommendations of the Rajya Sabha.
- A money bill can be introduced by a minister (even from Rajya Sabha) (Government Bill), or be any member of the Parliament (Private Member's Bill) but only in Lok Sabha.
- The President may either give or withhold assent to a Money Bill.

- Under the Constitution, a Money Bill cannot be returned to the House by the President for reconsideration.

Some Categories of Money Bills

- Finance Bill: Finance Bill is a secret bill introduced in Lok Sabha every year immediately after the presentation of the General Budget to give effect to the financial proposals of the Government of India for the following financial year. Finance Bills are treated as Money Bills as they substantially deal with amendments to various tax laws and matters incidental thereto.
- Appropriation Bill: An Appropriation Bill is introduced in Lok Sabha immediately after adoption of the relevant demands for grants. Such Bills are categorised as Money Bills as they seek to authorise appropriation from the Consolidated Fund of India, of all moneys required to meet the grants made by the House and the expenditure charged on the Consolidated Fund of India.

71. Ans: D

Exp:

- Statement 1 is incorrect: A writ of Certiorari means 'to be certified' or 'to be informed'. It is issued by a higher court to a lower court or tribunal either to transfer a case pending with the latter to itself or to squash the order of the latter in a case. It is issued on the grounds of excess of jurisdiction or lack of jurisdiction or error of law. Thus, unlike prohibition, which is only preventive, certiorari is both preventive as well as curative.
- Statement 2 is incorrect: A writ of Prohibition is issued by a superior court to an inferior court or tribunal to prevent it from exceeding its jurisdiction and to compel it to keep within the limits of its jurisdiction. It issued only against judicial and quasi-judicial authorities. It is not available against administrative authorities, legislative bodies, and private individuals or bodies.

72. Ans: A

Exp:

- The constitution entails the following rights under the Right to Freedom of Religion:
 1. Article 25: Freedom of Conscience and Free Profession, Practice and Propagation of Religion
 2. Article 26: Freedom to Manage Religious Affairs
 3. Article 27: Freedom from Taxation for Promotion of a Religion
 4. Article 28: Freedom from Attending Religious Instruction
- Option 1 is Correct: Article 25 says that all persons are equally entitled to freedom of conscience and the right to freely profess, practice and propagate religion. These rights are available to all persons—citizens as well as noncitizens. Rights under these are subject to public order, morality, health and other provisions relating to fundamental rights.
- Option 2 is incorrect: Article 29 mentions that any section of the citizens residing in any part of India having a distinct language, script or culture of its own, shall have the right to conserve the same. It is thus included under the CULTURAL AND EDUCATIONAL RIGHTS.
- Option 3 is incorrect: Article 30 grants grants that all minorities (linguistic and religious) shall have the right to establish and administer educational institutions of their choice and that the State shall not discriminate against any educational institution managed by a minority while granting an aid. It is also included under the CULTURAL AND EDUCATIONAL RIGHTS.

73. Ans: A

Exp:

- Statement 1 is correct: Article 34 provides for the restrictions on fundamental rights while martial law is in force. It empowers the Parliament to indemnify any government servant or any act done by him in connection with the maintenance

or restoration of order where martial law is in force.

- The Parliament can also validate any sentence passed or punishment inflicted under martial law in such an area.
- Statement 2 is incorrect: There is no such provision mentioned in the constitution. However, during National Emergency the Govt. and the courts continue to function, irrespective of the grounds on which the emergency has been declared.
- Statement 3 is incorrect: The expression 'martial law' has not been defined anywhere in the Constitution. Literally, it means 'military rule'. It refers to a situation where civil administration is run by the military authorities according to their own rules and regulations framed outside the ordinary law. It thus implies the suspension of ordinary law and the government by military tribunals.

74. Ans: C

Exp:

- Statement 1 is incorrect – The right to profess, practice and propagate are subject to public order, morality, health and other provisions relating to fundamental rights.
- Statement 2 is incorrect – The State is permitted to regulate or restrict any economic, financial, political or other secular activities associated with religious practice.
- Statement 3 is correct - In the context of Article 25, the Hindus include Sikhs, Jains and Buddhists only.
- Reference – Laxmikanth

75. Ans: A

Exp:

- Options 1 and 2 are correct

Socialistic Directive Principles of State Policy

- To promote the welfare of the people by securing a social order permeated by justice—social, economic and political and to minimise inequalities in income, status, facilities and opportunities (Article 38).

- To secure (a) the right to adequate means of livelihood for all citizens; (b) the equitable distribution of material resources of the community for the common good; (c) prevention of concentration of wealth and means of production; (d) equal pay for equal work for men and women; (e) preservation of the health and strength of workers and children against forcible abuse; and (f) opportunities for healthy development of children (Article 39).
- To promote equal justice and to provide free legal aid to the poor (Article 39 A).
- To secure the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement (Article 41).
- To make provision for just and humane conditions of work and maternity relief (Article 42).
- To secure a living wage, a decent standard of life and social and cultural opportunities for all workers (Article 43).
- To take steps to secure the participation of workers in the management of Industries (Article 43 A)
- Option 3 is incorrect: Article 48, "The State shall endeavour to organise agriculture and animal husbandry on modern and scientific lines" is Liberal intellectual DPSPs
- Option 4 is incorrect: Article 47, "The state shall endeavour to prohibit consumption of intoxicating drinks and drugs which are injurious to health" is Gandhian principle.

76. Ans: C

Exp:

- Option 1 is incorrect: Though Preamble is an important part of the constitution it is not considered as conscience of the constitution by Granville Austin. N.A. Palkhivala called it as the 'identity card of the constitution'
- Option 2 and 3 are correct: Fundamental rights are the 'keystone' of democracy as they are 'guaranteed' by law and the Directive Principles constitute a significant part of the Constitution.

- Therefore, the Directive Principles and the Fundamental Rights have been described as the 'Conscience of the Constitution' by Granville Austin
- Option 4 is incorrect: Fundamental duties are not considered as conscience of the constitution by Granvill Austin.

77. Ans: B

Exp:

- Option 1 is Correct: Presence of all India services is one of the unitary features of the Indian Constitution. Officers of all india services serve their respected state cadre but they are recruited and trained by the centre which also possesses the ultimate control over them. Hence this services violate the principle of federalism.
- Option 2 is Correct: In India Election Commission conducts the election not only of the Central legislature but also the state legislature. But this body is constituted by the president and state has no control over it. Hence it is one of the unitary feature of Indian constitution
- Option 3 is Correct: In India the process of constitutional amendment is less rigid than the other Federation as the bulk of the Constitution can be amended by the unilateral action of a parliament either by the simple majority or by the special majority. Further state legislature have no power to initiate the Constitutional Amendment
- Option 4 is incorrect: Supremacy of the constitution is a federal feature of a constitution not a unitary feature.

78. Ans: C

Exp:

- Option A is correct: Article 29 provides that any section of the citizens residing in any part of India having a distinct language, script or culture of its own, shall have the right to conserve the same.
- The Supreme Court held that the scope of this article is not necessarily restricted to minorities only. This is because of the use of the words 'section of citizens' in the

Article that include minorities as well as majority.

- Option B is correct: 44th Amendment Act provided that rights under Article 20 and 21 are enforceable even during emergency.
- Option C is incorrect: The term 'untouchability' has not been defined either in the Constitution or in the Protection of Civil Rights Act, 1955.
- The Mysore High Court held that the subject matter of Article 17 is not untouchability in its literal or grammatical sense but the 'practice as it had developed historically in the country'.
- Option D is correct: Rights under Article 15, 16, 19, 29 and 30 are available to citizens only and are denied to non-citizens.
- Reference: Laxmikanth

79. Ans: A

Exp:

- Option A is correct: The Preamble provides the source of authority of the Constitution as the people of India.
- Option B is incorrect: The Preamble provides liberty of thought, expression, belief, faith and worship.
- Option C is incorrect: The Preamble has been amended only once through 42nd Constitutional Amendment Act, 1976 which added three new words—Socialist, Secular and Integrity—to the Preamble.
- Option D is incorrect: In the Berubari Union case, the Supreme Court held that the Preamble is not a part of the Constitution. It is in the Kesavananda Bharati case that the Supreme Court held that the Preamble is part of the Constitution.

80. Ans: C

Exp:

- The directive for separation of the judiciary from the executive has been provided under Article 50, which was part of the original Constitution.

- The directive to secure opportunities for healthy development of children has been provided under Article 39(f), which was added through 42nd Constitutional Amendment Act, 1976.
- In the Minerva Mills Case (1980), the Supreme court held that the Indian constitution is founded on the bedrock of the balance between the fundamental rights and directive principle.
- Provision for consequential seniority in promotion in favour of Scheduled Castes and Scheduled Tribes under Article 16(4A) was added through 85th Constitutional Amendment Act, 2001.

81. Ans: C

Exp:

- Statement 1 is incorrect: In case of a conflict between the Central law and the state law on a subject enumerated in the Concurrent List, the Central law prevails over the state law. But there is an exception. If the state law has been reserved for the consideration of the president and has received his assent, then the state law prevails in that state. But it would still be competent for the Parliament to override such a law by subsequently making a law on the same matter.
- Statement 2 is correct: The Constitution expressly secures the predominance of the Union List over the State List and the Concurrent List and that of the Concurrent List over the State List. Thus, in case of overlapping between the Union List and the State List, the former should prevail. In case of overlapping between the Union List and the Concurrent List, it is again the former which should prevail. Where there is a conflict between the Concurrent List and the State List, it is the former that should prevail.
- Statement 3 is incorrect: The bills on certain matters (and not all matters) in the State List can be introduced in the State Legislature only with the previous sanction of the President (For example bills

imposing restriction on freedom of trade & commerce)

82. Ans: C

Exp:

- Statement 1 is incorrect: Adjournment motion does not terminate session of house it only suspends the work in the sitting of house for a specific time, which can be hours, days or week.
- On other hand Adjournment sine die terminates a sitting of house for an infinite period.
- Statement 2 is correct: The maximum gap between two sessions of Parliament cannot be more than six months. In other words, the Parliament should meet twice a year.
- Statement 3 is correct: Prorogation not only terminates a sitting but also a session of the House. The presiding officer (Speaker or Chairman) declares the House adjourned sine die, when the business of the session is completed. Within the next few days the President issues the notification for prorogation of the session. President can also prorogue the house while in session.
- Statement 4 is incorrect: The presiding officer of the House (Speaker) passes the adjournment motion and not President. The President issues the notification for prorogation of the session.

83. Ans: D

Exp:

- Statement 1 is incorrect: A bill pending in the Rajya Sabha and passed by the Lok Sabha lapses.
- Statement 2 is correct: A bill passed by both Houses but returned by the President for reconsideration of the Houses does not lapse.
- Statement 3 is incorrect: A bill pending in the Lok Sabha lapses (whether originating in the Lok Sabha or transmitted by the Rajya Sabha).

- Statement 4 is incorrect: A bill passed by both Houses but pending for the assent of the President does not lapse.

84. Ans: D

Exp:

- Statement 1 is correct: A starred question requires an oral Ans: and hence supplementary questions can be followed.
- Statement 2 is incorrect: A short notice question is asked by giving a notice of less than 10 days and not 15 days also it is Ans:ed orally.
- Statement 3 is correct: An unstarred does require a written Ans: and hence supplementary questions can be followed.
- Statement 4 is correct: The first hour of every parliamentary sitting is slotted for Question Hour. During this time, the members ask questions and ministers usually give Ans:s. The questions are of three kinds, namely, starred, unstarred and short notice.

85. Ans: D

Exp:

- Adjournment motion is used to draw attention of the House on a definite matter of urgent public importance and it needs 50 members support to be admitted. But this motion also has some restrictions.
- Statement 1 is incorrect: It should not cover more than one matter of public importance and it should raise a matter which is definite, factual, urgent and of public importance.
- Statement 2 is incorrect: It should not be framed in general term and should be restricted to a specific matter of the general public.
- Statement 3 is correct: It should not raise a matter of privilege. It should also not revive discussion on matters that have already been discussed in the same session.
- Statement 4 is correct: It should not deal with any matter that is under adjudication

by court. Also it should not raise any question that can be raised by the distinct motion.

86. Ans: B

Exp:

- Statement 1 is incorrect: Five Ministers of Cabinet rank/ Minister of State (independent charge) nominated by the chairman are permanent invitees of the Inter-State Council.
- Statement 2 is correct: The Council is assisted by a secretariat called the Inter-State Council Secretariat. It has also functioned as the secretariat of the zonal council since 2011.
- Statement 3 is correct: The council is a recommendatory body on issues of Inter-State, Centre-State, and Centre-Union territories. It aims at promoting coordination between them by examining, discussing and deliberating on such issues.

87. Ans: B

Exp:

- Statement 1 is incorrect: Holding any office of profit under union or state government is disqualification under the constitution not RPA 1951.
- Statement 2 is correct: The RPA, 1951 lays down certain rules for disqualification of MPs and MLAs.
 - Section 8 (3) of the Act states that if an MP or MLA is convicted for any other crime and is sent to jail for 2 years or more, he/ she will be disqualified for 6 years from the time of release.
- Statement 3 is incorrect: Final authority to take decision regarding the disqualification of a Member of parliament under RPA act 1951 is under the president, not speaker of lok sabha.

88. Ans: D

Exp:

- Statement 1 is correct: The Constitution does not contain any specific procedure

for the selection and appointment of the Prime Minister. Article 75 says only that the Prime Minister shall be appointed by the President but does not describe any procedure.

- Statement 2 is incorrect: The term of Prime Minister is not fixed and he holds office during the pleasure of the President. However, it does not mean that the President can dismiss the Prime Minister at any time. If The Prime Minister enjoys the majority support in the Lok Sabha, he/she cannot be dismissed by the President.
- Statement 3 is correct: The Prime Minister as the head of the Union council of ministers, hence he/she can bring about the collapse of the council of ministers by resigning from office.
- Statement 4 is incorrect: The Prime Minister as the leader of the Lower House, in this capacity he/she can recommend the dissolution of the Lok Sabha to the President at any time.
- Source: D.D. BASU, M. LAXMIKANTH

89.Ans: B

Exp:

- Statement 1 is correct: The Prime Minister is the leader of the Lower House in this capacity he advises the President with regard to summoning and proroguing of the sessions of the Parliament.
- Statement 2 is correct: As the leader of the Lower House Prime minister announces policies of the government on the floor of the House.
- Statement 3 is incorrect: This power of the Prime Minister is in relation with the President, in which he acts as a communication channel between the President and the council of ministers.
- Statement 4 is incorrect: This power is also in relation with the President, the Prime Minister communicates to the President all decisions of the council of ministers relating to the administration of the affairs of the union and proposals of the legislation.

- Source: M. LAXMIKANTH

90.Ans: C

Exp:

- Statement 1 is correct: Article 72 of the Constitution empowers the President to grant pardons, the objective of conferring this power to the President is to keep the door open for correcting any judicial errors in the operation of law.
- Statement 2 is incorrect: The pardoning power of the President is not similar to the pardoning power of the Governor, as the President can pardon even a death sentence and also any punishment or sentence by a court-martial but, the Governor cannot do so, the pardoning power of the Governor cannot extend beyond the punishment or sentence prescribe to a person against a state law.
- Statement 3 is correct: Through pardoning the President also affords relief from a sentence, which the President regards as unduly harsh.
- Statement 4 is incorrect: President exercises pardoning power on the advice of the Union Cabinet.
- Source: M. LAXMIKANTH

91. Ans: A

Exp:

- Statement 1 is correct: The President may make such provision as he thinks fit for the discharge of the functions of the governor in any contingency not provided in the Constitution, for example, the death of a sitting governor. Thus, the chief justice of the concerned state can be appointed temporarily as the governor of that state.
- Statement 2 is incorrect: The constitution does not lay down any grounds upon which the governor may be removed by the President. The President can transfer a Governor from one state to another state for the rest of the term.
- Statement 3 is incorrect: A Governor holds office for a term of five years from the date on which he enters upon his office.

However, his term is subject to the pleasure of the President but, the Supreme Court held that the pleasure of the President is not Justifiable.

- Source: M. LAXMIKANTH

92. Ans: A.

Exp:

- Statement 1 is incorrect: It is the presiding officer (chairman or speaker, as the case may be) of a house who is empowered to make rules to give effect to the provisions of the tenth schedule. All such rules must be placed before the house for 30 days. The house may approve or modify or disapprove them further. The presiding officer may also direct that any wilful contravention by any member of such rules may be dealt with in the same manner as a breach of privilege of the house.
- Statement 2 is incorrect: According to the rules made, the presiding officer can take a defection case only when he receives a complaint from a member of the house. Before taking the final decision, she must give the member a chance to submit an Exp:. She may also refer the matter to the committee of privileges for enquiry.
- Statement 3 is Correct: The anti defection act empowers the presiding officer of the house (chairman or the speaker) to decide on any question regarding the disqualification of a member arising out of defection. Originally the act provided that the decision of the presiding officer is final and cannot be questioned in any Court. However, The Supreme court, in the Kihoto Hollohan versus Zachillhu case (1992), observed that the suspicion of bias on the Speaker's role could not be ruled out. It hence declared this provision unconstitutional on the ground that it seeks to take away the jurisdiction of the Supreme Court and the high courts. The decision of the presiding officer is thus subject to judicial review.

93. Ans: A

Exp:

- Statement 1 is correct: The Cabinet secretariat is responsible for the administration of the GoI (Transaction of Business rules), 1961 and GoI (Allocation of business) rules, 1961 facilitating smooth transaction of business in ministries/departments. It assists in decision making in government by ensuring inter-ministerial coordination and evolving consensus.
- Statement 2 is incorrect: The cabinet secretariat functions directly under the Prime Minister (and not Home Minister)
- Statement 3 is incorrect: The administrative head of the Secretariat is the Cabinet Secretary (and not Chief Secretary) who is also the ex-officio Chairman of the Civil Services Board. The Chief secretary acts as a secretary to the state cabinet. He acts as the head of state civil services.
- Source if reference <https://cabsec.gov.in/>

94. Ans: C

Exp:

- Option 1 is correct: Matters related to revenue collection falls under the original jurisdiction of High Court
- Option 2 is correct: enforcement of fundamental rights falls under original jurisdiction of High Court
- Option 3 is correct Cases requiring interpretation of constitution that are transferred from subordinate Court falls under original jurisdiction of High Court
- Option 4 is incorrect: Dispute relating to election of Panchayat members is adjudicated as mentioned in state legislative acts. Thus they do not fall under original jurisdiction of High Court

95. Ans: B

Exp:

- Statement 1 is correct: The above disqualification on the ground of defection does not apply in the following two cases: (a) If a member goes out of his party as a result of a merger of the party with

another party. A merger takes place when two-thirds of the members of the party have agreed to such merger. (b) If a member, after being elected as the presiding officer of the House, voluntarily gives up the membership of his party or rejoins it after he ceases to hold that office. This exemption has been provided in view of the dignity and impartiality of this office.

- Statement 2 is correct: Any question regarding disqualification arising out of defection is to be decided by the presiding officer of the House
- Statement 3 is incorrect: Originally, the act provided that the decision of the presiding officer is final and cannot be questioned in any court. However, in the Kihoto Hollohan case, the Supreme Court declared this provision as unconstitutional on the ground that it seeks to take away the jurisdiction of the Supreme Court and the high courts. It held that the presiding officer, while deciding a question under the Tenth Schedule, function as a tribunal. Hence, his decision like that of any other tribunal, is subject to judicial review.

96. Ans: A

Exp:

- Statement 1 is correct: Article 320(4) provides that the UPSC may not be consulted as respects the manner in which any provision related to Article 16(4), i.e. reservations of appointments or posts in favour of any backward class of citizens.
- Statement 2 is correct: Article 320(4) further provides that the UPSC may not be consulted as respects the manner in which effect may be given to the provisions of Article 335, i.e. the claims of the scheduled castes and scheduled tribes in making appointments to services and posts.
- Statement 3 is incorrect: Article 320(3)(c) provides that the UPSC shall be consulted for all disciplinary matters affecting a person serving under the Government of India.

- Statement 4 is incorrect: Article 320(3)(e) provides that the UPSC shall be consulted on Any claim for award of a pension in respect of injuries sustained by a person while serving under the Government of India.
- Reference: Laxmikanth

97. Ans: A

Exp:

- Statement 1 is correct: It becomes a money bill and thus the President must approve the introduction of the bill.
- Statement 2 is correct: Under Article 3, the President must recommend the introduction of this bill as it has the potential to significantly affect the federal balance of power between centre and states.
- Statement 3 is incorrect: The constitution does not distinguish between Private or public bills when it comes to the requirement of prior Presidential assent.
- Statement 4 incorrect: It is only in certain cases, such as alternation of state boundaries which needs prior permission of the President. In other cases, it is not mandatory.

98. Ans: A

Exp:

- Statement 1 is incorrect: The Unlawful Activities (Prevention) Act, 1967 was enacted to effectively prevent the terrorists and the unlawful activities of the individuals and associations. Cases under this Act can be investigated both by the National Investigation Agency and the state police.
- Statement 2 is incorrect: As per this Act, the Central government is empowered to impose a ban on an organization by declaring them as unlawful. The ban can be done both on the individuals as well as the organizations dealing with terror related activities.
- Statement 3 is correct: A recent amendment of the Act in 2019 extended the ban on both the individuals and the

organization by declaring them as terrorists. Earlier only the organizations could be banned by declaring them as terrorist organizations but now even individuals can be declared as terrorists under the provisions of this Act.

- Source:
https://www.mha.gov.in/sites/default/files/CTCR_UnlawfulActivities_06092019.pdf

99. Ans: A

Exp:

- Statement 1 is correct: It provides the reservation of seats for the scheduled castes and the scheduled tribes in every municipality in proportion of their population to the total population in the municipal area
- Statement 2 is incorrect: it provides for the reservation of not less than one-third of the total number of seats for women (including the number of seats reserved for woman belonging to the SCs and the STs)
- Statement 3 is incorrect: It is not obligatory and they are placed under voluntary provisions for the states.

100. Ans: C

Exp:

- Statement 1 is correct: - The Constitution did not specify the official language of different states, but made many provisions regarding it.
- Statement 2 is incorrect: The legislature of a state may adopt any one or more of the languages in use in the state or Hindi as the official language of that state.
- Statement 3 is incorrect: The President (on a demand being made) is satisfied that a substantial proportion of the population of a state desires the use of any language spoken by them to be recognised by that state, then he may direct that such language shall also be officially recognised in that state. This provision aims at protecting the linguistic interests of minorities in the states.
- Source: M.LaxmiKanth