

Q.1) With reference to National Capital Territory of Delhi, consider the following statements:

1. The 67th Constitutional Amendment Act created a legislative assembly and a council of ministers for Delhi.
2. The legislative assembly of Delhi can make laws on all the matters of the State List and the Concurrent List.
3. The strength of the council of ministers is fixed at 10 percent of the total strength of the assembly.

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

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

Q.1) Solution (a)

Elimination Method –

Here if you know one of the special provisions with respect to NCT of Delhi, i.e. the size of the Council of Ministers is 10% of total strength of the assembly, you can arrive at the right answer. Thus Statement 3 is correct and is given in three of the Options, i.e. option (b), (c) and (d) which are to be eliminated as Question demand for incorrect Statements.

Basic Information:

- The 69th Constitutional Amendment Act of 1991 provided a special status to the Union Territory of Delhi, and redesignated it as the National Capital Territory of Delhi and designated the administrator of Delhi as the lieutenant (lt.) governor.
- The council of ministers is collectively responsible to the assembly. The council of ministers headed by the chief minister aid and advises the lt. governor in the exercise of his functions except in so far as he is required to act in his discretion. In the case of difference of opinion between the lt. governor and his ministers, the lt. governor is to refer the matter to the president for decision and act accordingly.

Statement Analysis:

Statement 1	Statement 2	Statement 3
Incorrect	Incorrect	Correct
The 69th Constitutional Amendment Act created a legislative assembly and a council of ministers for Delhi. The strength of the assembly is fixed at 70 members, directly elected by the people.	The assembly can make laws on all the matters of the State List and the Concurrent List except the three matters of the State List, that is, public order, police and land. But, the laws of Parliament prevail over those made by the Assembly.	The strength of the council of ministers is fixed at 10 per cent of the total strength of the assembly. The chief minister is appointed by the President (not by the Lt. governor). The other ministers are appointed by the president on the advice of the chief minister. The ministers hold office during the pleasure of the President.

Q.2) If there are different tribes in an autonomous district, the Governor can divide the district into several autonomous regions. The regional council constituted for the administration of such an autonomous region has which of the following powers?

1. To constitute village councils or courts for trial of suits and cases between the tribes.
2. To make laws on certain specified matters like land, forests, shifting cultivation.
3. To establish, construct or manage primary schools, dispensaries, markets and so on.
4. To assess and collect land revenue and to impose certain specified taxes.

Select the correct answer using the code given below:

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

Q.2) Solution (a)

Basic Information:

- The Constitution, under Sixth Schedule, contains special provisions for the administration of tribal areas in the four northeastern states of Assam, Meghalaya, Tripura and Mizoram.
- The tribal areas in these four states have been constituted as autonomous districts. If there are different tribes in an autonomous district, the governor can divide the district into several autonomous regions.
- Each autonomous district has a district council consisting of 30 members, of whom four are nominated by the governor and the remaining 26 are elected on the basis of adult franchise. The elected members hold office for a term of five years (unless the council is dissolved earlier) and nominated members hold office during the pleasure of the governor.
- Each autonomous region also has a separate regional council. The district and regional councils administer the areas under their jurisdiction.
- The governor can appoint a commission to examine and report on any matter relating to the administration of the autonomous districts or regions. He may dissolve a district or regional council on the recommendation of the commission.

Statement Analysis:

Statement 1	Statement 2 and 4	Statement 3
Correct	Correct	Incorrect
Both district and regional councils under their jurisdiction can constitute village councils or courts for trial of suits and cases between the tribes. They hear appeals from them. The jurisdiction of high court over these suits and cases is specified by the governor.	Both district and regional councils can make laws on certain specified matters like land, forests, canal water, shifting cultivation, village administration, and inheritance of property, marriage and divorce, social customs and so on. But all such laws require the assent of the governor. They are empowered to assess and collect land revenue and to impose certain specified taxes.	Only the district council can establish, construct or manage primary schools, dispensaries, markets, ferries, fisheries, roads and so on in the district. But, such regulations require the assent of the governor.

Q.3) In 2004, the Maharashtra government moved to the Supreme Court for a settlement of the border dispute demanding 814 villages from Karnataka on the basis of the theory of village being the unit of calculation, contiguity and enumerating linguistic population in each village. Under which of the following Articles of the Constitution was this move made?

- a) Article 126
- b) Article 32
- c) Article 13
- d) Article 131

Q.3) Solution (d)

In 2004, the Maharashtra government moved the Supreme Court for a settlement of the border dispute under Article 131(b) of the Constitution, demanding 814 villages from Karnataka on the basis of the theory of village being the unit of calculation, contiguity and enumerating linguistic population in each village. The case is pending in the apex court.

Article 131 of the Indian Constitution states: "Original jurisdiction of the Supreme Court: Subject to the provisions of this Constitution, the Supreme Court shall, to the exclusion of any other court, have original jurisdiction in any dispute:

- a) between the Government of India and one or more States; or
- b) between the Government of India and any State or States on one side and one or more other States on the other; or
- c) between two or more States, if and in so far as the dispute involves any question (whether of law or fact) on which the existence or extent of a legal right depends:

Provided that the said jurisdiction shall not extend to a dispute arising out of any treaty, agreement, covenant, engagement, sanad or other similar instrument which, having been entered into or executed before the commencement of this Constitution, continues in operation after such commencement, or which provides that the said jurisdiction shall not extend to such a dispute.

Source: <https://indianexpress.com/article/explained/explained-what-is-the-mahajan-commission-report-on-the-maharashtra-karnataka-border-dispute-7056340/>

Q.4) Consider the following statements regarding the 'Methane Hydrates'

1. It is a crystalline solid that consists of a methane molecule surrounded by a cage of interlocking water molecules.
2. It is not found in ice-lands like Antarctica and Siberia.
3. Increasing global warming is a threat to preservation of this fuel form.

Choose the correct statements using the codes given below

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Q.4) Solution (c)**Statement Analysis:**

Statement 1	Statement 2	Statement 3
Correct	Incorrect	Correct
Methane hydrate is a crystalline solid that consists of a methane molecule surrounded by a cage of interlocking water molecules. Methane hydrate is an "ice" that only occurs naturally in subsurface deposits where temperature and pressure conditions are favourable for its formation.	Enormous amounts of methane hydrate have been found beneath Arctic permafrost, beneath Antarctic ice, and in sedimentary deposits along continental margins worldwide.	If the ice is removed from this temperature/pressure environment, it becomes unstable. They cannot be drilled and cored for study like other subsurface materials because as they are brought to the surface, the pressure is reduced and the temperature rises. This causes the ice to melt and the methane to escape. Global warming is also a major reason for melting of the permafrost and releasing the methane gas into the atmosphere.

Additional Information:

Methane gas is primarily formed by microorganisms that live in the deep sediment layers and slowly convert organic substances to methane. These organic materials are the remains of plankton that lived in the ocean long ago, sank to the ocean floor, and were finally incorporated into the sediments.

Q.5) Images sent by Chandrayaan-1, India's first lunar mission, suggest that the Moon may be rusting along the poles. What does it signify?

1. Rusting on moon is caused with the help of earth's upper atmosphere's oxygen.
2. Rusting is primarily taking place with the help of liquid water found on the lunar surface in large quantities.

Choose the correct statement/s using the codes given below

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

Q.5) Solution (a)

Statement Analysis:

Statement 1	Statement 2
Correct	Incorrect
A recent study published in Science Advances found an oxidised iron mineral called hematite at high latitudes on the Moon. The team analysed the data acquired by the Moon Mineralogy Mapper onboard Chandrayaan-1. Researchers say that this lunar hematite is formed through oxidation of the iron on the Moon's surface by the oxygen from Earth's upper atmosphere.	The Chandrayaan-1 data indicate that the Moon's poles are home to water ice, but the hematite was detected far from that water ice. The scientists propose that fast-moving dust particles that regularly pelt the Moon could release surface-borne water molecules, mixing them with iron in the lunar soil. Thus creating an opportunity for rust to form.

Q.6) Which of the following are the major reasons for frequent and intense flooding of the Brahmaputra valley?

1. Topography of the land
2. Bank erosion
3. Landslides
4. Cyclones in Bay of Bengal

Choose the correct answer using the codes given below

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 1, 3 and 4 only
- d) All of the above

Q.6) Solution (d)

Basic Information:

Reasons behind Brahmaputra flooding

- Brahmaputra is braided and unstable in its entire reach in Assam except for a few places. The main reasons behind the instability of the river are high sedimentation and steep slopes.
- High percentage of flood prone region: 31.05 lakh hectares of the total 78.523 lakh hectares area of the state is prone to frequent floods. And the reasons behind this high flood prone area percentage are both man-made and natural.
- Assam and some other parts of the northeastern region are prone to frequent earthquakes, which causes landslides. The landslides and earthquakes send in a lot of debris in the rivers, causing the river bed to rise.
- Assam has also faced bank erosion around the Brahmaputra and Barak rivers as well as their tributaries. It is estimated that annually nearly 8000 hectares land is lost to erosion. Bank erosion has also affected the width of the Brahmaputra river, which has increased up to 15 km.
- Among the man-made reasons, the key cause of floods in Assam region is releasing of water from dams situated uphill. Unregulated release of water floods the Assam plains, leaving thousands of people homeless every year.
- Guwahati's topography — it's shaped like a bowl — does make it susceptible to water logging.

- Unplanned expansion of the urban areas has led to severe encroachments in the wetlands, low lying areas, hills and shrinkage of forest cover.
- The river also changes course frequently and it's virtually impossible to contain it within embankments. The pressure of the surging water takes a toll on these walls.

Q.7) Which of the following statement correctly explains the term 'Microlensing'?

- a) It is a phenomenon where light from a background source, such as a star, is bent by the gravitational field of a foreground celestial body.
- b) It is the most advanced form of electron microscopy where in each living cell could be studied in detail.
- c) It is a form of telescope used to observe the nearby planets and celestial bodies that are located just outside the solar system.
- d) It is a genetic engineering technique that is used to modify the genome setup at the embryonic level.

Q.7) Solution (a)

Basic Information:

Microlensing

- Microlensing is a form of gravitational lensing where light from a background source, such as a star, is bent by the gravitational field of a foreground planet or any other source of gravity. This creates distorted or multiple images, which show both intensity of light and position of the background source of light inaccurately.
- Gravitational microlensing is a scaled-down version of gravitational lensing, where a large structure, such as a galaxy cluster, is used to focus light that's coming from a background galaxy or star.

Q.8) Which of the following statement related to Reserve Bank of India (RBI) is incorrect?

- a) An 'accommodative stance' means a central bank will cut rates to inject money into the financial system whenever needed.

- b) A 'neutral stance' means RBI could change the policy rates in any direction (increase/decrease) as per the requirement of the economic situation.
- c) In a 'calibrated stance', RBI indicates that it is going to tighten the policy measures by hiking the rates in the near future.
- d) None of the above

Q.8) Solution (d)

Note: question asks for incorrect statement/s.

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Correct
An accommodative stance means a central bank will cut rates to inject money into the financial system whenever needed.	A change in this stance to 'neutral' means RBI will alter rates in any direction to control the money supply in the system.	The RBI's shift in monetary policy stance to Calibrated Tightening, means rate cut is off the table this cycle. Investors are thereby indicated about the possible increase in the policy rates in the near future.

Basic Information:

A 'Stance' is policy guidance to financial markets declared by the central bank so that all types of investors can make informed decisions. Theoretically, the Indian central bank gives three main types of forward guidance/policy stance to markets,

- Accommodative: telling the market to expect a rate cut anytime
- Tight: To indicate an impending rate hike
- Neutral: this doesn't have any particular meaning. This means there can be a rate cut or rate hike anytime.