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## Polity

Q1. With reference to Right to Constitutional Remedies guaranteed under Article 32, consider the following statements:

1. The Supreme Court has ruled that Article 32 is a basic feature of the constitution.
2. Fundamental rights and other statutory rights can be enforced under Article 32.
3. The Supreme Court has both executive and original jurisdiction in case of enforcement of Fundamental Rights.
4. Article 32 cannot be invoked to determine the constitutionality of an executive order or a legislation unless it directly infringes on any Fundamental Rights.

Which of the above statements is/are incorrect?

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

**Solution: b)**  
**Justification**

- Statement 1 – The Supreme Court has ruled that Article 32 is a basic feature of the Constitution. Hence, it cannot be abridged or taken away even by way of an amendment to the Constitution.
- Statement 2 - Only the Fundamental Rights guaranteed by the Constitution can be enforced under Article 32 and not any other right like non-fundamental constitutional rights, statutory rights, customary rights and so on.
- Statement 3 - In case of the enforcement of Fundamental Rights, the jurisdiction of the Supreme Court is original but not exclusive. It is concurrent with the jurisdiction of the high court under Article 226.
- Statement 4 - Article 32 cannot be invoked simply to determine the constitutionality of an executive order or a legislation unless it directly infringes any of the fundamental rights.

Q2. Which of the statements about State Human Rights Commission is correct?

- a) State Human Rights Commission is a constitutional body
- b) If any case is already being inquired by the National Human Rights Commission then the State Human Rights Commission does not inquire into that case, whereas if the case is being inquired by any other statutory commission then the State Human Rights Commission can inquire into that case.
- c) To review the constitutional and other legal safeguards for the protection of human rights.
- d) The chairperson and members of State Human Rights Commission are appointed by the President.

**Solution: c)**  
**Justification**

- State Human Rights Commission is a Non-constitutional body.
- If any such case is already being inquired into by the National Human Rights Commission or any other Statutory Commission, then the State Human Rights Commission does not inquire into that case.
- The commission can review the constitutional and other legal safeguards for the protection of human rights.
- Although the chairperson and members of a State Human Rights Commission are appointed by the governor, they can be removed only by the President (and not by the governor).

Q3. Consider the following about Secretary of the panchayat

1. Secretary of the panchayat is elected by the Gram Panchayat from amongst its members.
2. Secretary of the panchayat is responsible for calling the meeting of the Gram Sabha and Gram Panchayat and keeping a record of the proceedings.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None

**Solution: b)**  
**Justification**

Gram panchayat has a **Secretary** who is also the secretary of the Gram Sabah. This person is not an elected person but is appointed by the state government, to oversee panchayat activities. He is responsible for calling the meetings of the Gram Sabha and Gram Panchayat and keep a record of the proceedings.

Q4. Which of the following are the compulsory provisions of the 73<sup>rd</sup> Constitutional amendment act?

1. Reservation of one-third seats for women in panchayats at all the three levels.
  2. Granting powers and authority to the panchayats to enable them to function as institutions of self-government.
  3. Granting financial powers to the panchayats to levy, collect and appropriate taxes, duties, tolls and fees.
  4. Fixing tenure of 5 years for panchayats at all levels and holding fresh elections within six months in the event of suppression of any panchayat.
- a) 1 and 2
  - b) 2, 3 and 4
  - c) 1, 2 and 3
  - d) 1 and 4

**Solution: d)**

## Justification

Statements 1 and 4 are compulsory provisions and statements 2 and 3 are voluntary provisions.

Q5. A parliamentary committee means a committee that:

1. Is appointed or elected by the House
2. Works under the direction of the Speaker / Chairman
3. Presents its report to the President
4. Has a secretariat provided by the Cabinet secretary

Which of the above statements is/are correct?

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

**Solution: a)**

**Justification**

A parliamentary committee means a committee that:

1. Is appointed or elected by the House or nominated by the Speaker / Chairman<sup>1</sup>
2. Works under the direction of the Speaker / Chairman
3. Presents its report to the House or to the Speaker / Chairman
4. Has a secretariat provided by the Lok Sabha / Rajya Sabha

Q6. Which of the following is/are not the federal features of the Indian Constitution?

1. The Constitution is written and not easily amendable.
2. Equal representation of all states in Rajya Sabha
3. State governments derive authority from the Centre.

Select the correct code:

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

**Solution: b)**

**Justification**

The division of powers established by the Constitution as well as the supremacy of the Constitution can be maintained only if the method of its amendment is rigid. Hence, the Constitution is rigid to the extent that those provisions which are concerned with the federal structure.

State governments derive their authority from the constitution, not the Centre.

The states are given representation in the Rajya Sabha on the basis of population. Hence, the membership varies from 1 to 31.

Q7. Consider the following about National Human Rights Commission.

1. It is a constitutional authority.
2. The Commission is independent of the government.
3. There is no fee to approach the NHRC.
4. Its recommendations are binding on the courts but not government.

Which of the above statements is/are correct?

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

**Solution: c)**

**Justification**

The commission has been established by law as autonomous of the government, and not by the constitution.

The NHRC cannot by itself punish the guilty. That is the responsibility of courts. The NHRC is there to make independent and credible inquiry into any case of violation of human rights.

Thus, its recommendations are not binding on neither the courts not the government.

Any citizen of India can write a letter to the NHRC to complain against the violation of human rights. There is no fee or any formal procedure to approach the NHRC.

Q8. "It shall be the endeavour of every state and every local authority within the state to provide adequate facilities for instruction in the mother-tongue at the primary stage of education to children belonging to linguistic minority groups." This is a

1. Forms part of Fundamental rights under Part III of the Constitution
2. Provision made under an Act of Parliament
3. Justiciable in courts if not implemented by the Government of India

Select the correct code:

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

d) None

**Solution: d)**  
**Justification**

It forms a part of Directive principles.

Apart from the Directives included in Part IV, there are some other Directives contained in other Parts of the Constitution. Instruction in mother tongue is a part of Article 350-A in Part XVII.

Hence, all the above statements 1, 2 and 3 are wrong, as directive principles are non-justiciable.

Q9. The salaries and allowances of the Judges of the High Court are charged to the

- a) Contingency Fund of India
- b) Consolidated Fund of India
- c) Consolidated Fund of the State
- d) Contingency Fund of the State

**Solution: c)**  
**Justification**

The salaries and allowances of the Judges of the HC are charged to the Consolidated Fund of the state but their pensions are payable as Charged Expenditure /Art 112(3).

Q10. Which of these constitutional bodies are functionally autonomous from the government?

- 1. State Public Service Commissions
- 2. Election Commission of India
- 3. Comptroller and Auditor-General of India

Select the correct code:

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

**Solution: d)**  
**Justification**

The Indian Constitution not only provides for the legislative, executive and judicial organs of the government (Central and state) but also establishes certain independent bodies.

Election Commission ensures free and fair elections to the Parliament, the state legislatures, the office of President of India and the office of Vice-president of India.

Comptroller and Auditor-General of India audits the accounts of the Central and state governments. He acts as the guardian of public purse and comments on the legality and propriety of government expenditure.

Union Public Service Commission to conduct examinations for recruitment to all-India services and higher Central services and to advise the President on disciplinary matters.

State Public Service Commissions in every state conduct examinations for recruitment to state services and advice the governor on disciplinary matters.

Q11. Under Article 12 of the Indian Constitution, which of the following comes under the definition of State?

1. Government and Parliament of India
2. ONGC and any private agency working for Aadhaar registration
3. District boards and improvement trusts

Select the correct code:

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

**Solution: d)**

**Justification**

The term 'State' has been used in different provisions concerning the fundamental rights. Hence, Article 12 has defined the term for the purposes of Part III. According to it, the State includes the following:

- (a) Government and Parliament of India, that is, executive and legislative organs of the Union government.
- (b) Government and legislature of states, that is, executive and legislative organs of state government.
- (c) All local authorities that is, municipalities, panchayats, district boards, improvement trusts, etc.
- (d) All other authorities, that is, statutory or non-statutory authorities like LIC, ONGC, SAIL, etc.

According to the Supreme Court, even a private body or an agency working as an instrument of the State falls within the meaning of the 'State' under Article 12.

Q12. With reference to the procedure for the amendment of the Constitution as laid down in Article 368, consider the following statements.

1. An amendment of the Constitution can be initiated only in either House of Parliament.
2. The bill can be introduced only by a minister and not by a private member.
3. Prior permission of the president is not required for the introduction of the bill.
4. The ratification by the state legislature is not required.

Which of the above statements is/are incorrect?

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

**Solution: b)**

**Justification**

The procedure for the amendment of the Constitution is laid down in Article 368:

1. An amendment of the Constitution can be initiated only by the introduction of a bill for the purpose in either House of Parliament and not in the state legislatures.
2. The bill can be introduced either by a minister or by a private member and does not require prior permission of the president.
3. The bill must be passed in each House by a special majority, that is, a majority (that is, more than 50 per cent) of the total membership of the House and a majority of two-thirds of the members of the House present and voting.
4. Each House must pass the bill separately. In case of a disagreement between the two Houses, there is no provision for holding a joint sitting of the two Houses for the purpose of deliberation and passage of the bill.
5. If the bill seeks to amend the federal provisions of the Constitution, it must also be ratified by the legislatures of half of the states by a simple majority, that is, a majority of the members of the House present and voting.
6. After duly passed by both the Houses of Parliament and ratified by the state legislatures, where necessary, the bill is presented to the president for assent.
7. The president must give his assent to the bill. He can neither withhold his assent to the bill nor return the bill for reconsideration of the Parliament.
8. After the president's assent, the bill becomes an Act.

Q13. Which of the following comes outside the scope of Article 368.

1. Elections to Parliament and state legislatures.
2. Rules of procedure in Parliament.
3. Supreme Court and high courts.

Select the correct code:

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

**Solution: c)**  
**Justification**

A number of provisions in the Constitution can be amended by a simple majority of the two Houses of Parliament outside the scope of Article 368. These include: Elections to Parliament and state legislatures and Rules of procedure in Parliament.

The provisions related to Supreme Court and high courts can be amended by a special majority of the Parliament and also with the consent of half of the state legislatures by a simple majority.

Q14. Consider the following statements about State Legislature.

1. The Constitution does not provide for the abolition or creation of legislative councils in states.
2. The governor can nominate two members from the Anglo-Indian community, if the community is not adequately represented in the assembly.
3. The actual strength of a council is fixed by the governor.

Which of the above statements is/are incorrect?

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

**Solution: d)**  
**Justification**

The Constitution provides for the abolition or creation of legislative councils in states. Accordingly, the Parliament can abolish a legislative council (where it already exists) or create it (where it does not exist), if the legislative assembly of the concerned state passes a resolution to that effect.

The governor can nominate one member from the Anglo-Indian community, if the community is not adequately represented in the assembly.

Though the Constitution has fixed the maximum and the minimum limits, the actual strength of a Council is fixed by Parliament.

Q15. Special provisions for marginalized classes in the constitution are related to

1. Educational Grants
2. Appointment of Commissions to investigate their socio-economic condition
3. Reservation in Legislatures and local bodies

Which of the above statements is/are correct?

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

**Solution: d)**

**Justification**

The Constitution makes special provisions for the scheduled castes (SCs), the scheduled tribes (STs), the backward classes (BCs) and the Anglo-Indians. These special provisions are contained in Part XVI of the Constitution from Articles 330 to 342. They are related to the following:

1. Reservation in Legislatures
2. Special Representation in Legislatures
3. Reservation in Services and Posts
4. Educational Grants
5. Appointment of National Commissions
6. Appointment of Commissions of Investigation

Q16. The value of secularism can be found in which of the following parts of the constitution?

1. Directive Principles of State Policy
2. Fundamental Duties
3. Preamble
4. Fundamental Rights

Select the correct code:

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

**Solution: d)**

**Justification**

Statement 1: The State shall endeavour to secure for all the citizens a Uniform Civil Code (Article 44 of DPSP).

Statement 2: Article 51A mentions this as one of the fundamental duties: "to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious,

linguistic and regional or sectional diversities and to renounce practices derogatory to the dignity of women.”

Statement 3: The Preamble secures to all citizens of India liberty of belief, faith and worship.

Statement 4:

- The State shall not deny to any person equality before the law or equal protection of the laws (Article 14).
- The State shall not discriminate against any citizen on the ground of religion (Article 15).
- Equality of opportunity for all citizens in matters of public employment (Article 16).
- All persons are equally entitled to freedom of conscience and the right to freely profess, practice and propagate any religion (Article 25).
- Every religious denomination or any of its section shall have the right to manage its religious affairs (Article 26).
- Similarly Articles 27-30 also uphold values of secularism.

Q17. Which of the following is the competent authority to change the name of any State of India?

- a) Governor of the State
- b) Concerned State Legislature
- c) Union Home Minister
- d) Parliament

**Solution: d)**

**Justification**

The Constitution authorizes the Parliament to form new states or alter the areas, boundaries or names of the existing states without their consent.

Q18. A number of provisions in the Constitution can be amended by a simple majority of the two Houses of Parliament outside the scope of Article 368. These provisions include:

1. Quorum in Parliament.
2. Rules of procedure in Parliament
3. Election of the President and its manner

Select the correct code:

- a) 1, 2
- b) 2 only
- c) 1, 3
- d) None

**Solution: a)**

**Justification**

These matters include:

- 1) Admission or establishment of new states.
- 2) Formation of new states and alteration of areas, boundaries or names of existing states.
- 3) Abolition or creation of legislative councils in states.
- 4) Second Schedule—emoluments, allowances, privileges and so on of the president, the governors, the Speakers, judges, etc.
- 5) Quorum in Parliament.
- 6) Salaries and allowances of the members of Parliament.
- 7) Rules of procedure in Parliament.
- 8) Privileges of the Parliament, its members and its committees.
- 9) Use of English language in Parliament.
- 10) Number of puisne judges in the Supreme Court.
- 11) Conferment of more jurisdiction on the Supreme Court.
- 12) Use of official language.
- 13) Citizenship—acquisition and termination.
- 14) Elections to Parliament and state legislatures.
- 15) Delimitation of constituencies.
- 16) Union territories.
- 17) Fifth Schedule—administration of scheduled areas and scheduled tribes.
- 18) Sixth Schedule—administration of tribal areas.

Q19. If the Union Parliament wishes to move a matter from Concurrent List to the Union List, which of these follows?

- a) The Rajya Sabha must initiate a constitutional amendment bill.
- b) The President must consult the Governors of a majority of States and act according to their advice.
- c) The Cabinet must pass an executive fiat to this effect.
- d) It must obtain the consent of all State Legislatures for the same.

**Solution: a)**

**Justification**

Moving a matter from the Concurrent List to Union List needs an amendment to the constitution.

Q20. Which of the following were the suggestions made by Swaran Singh Committee to be included as Fundamental Duties?

1. Duty to pay taxes
2. Family Planning
3. Casting vote

Select from the codes below

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

**Solution: a)**

**Justification**

- Swaran Singh Committee suggested the incorporation of eight Fundamental Duties in the Constitution, the 42nd Constitutional Amendment Act (1976) included ten Fundamental Duties
- Certain recommendations of the Committee were not accepted and hence, not incorporated in the Constitution. These include:
  1. Parliament may provide for the imposition of such penalty or punishment as may be considered appropriate for any non-compliance with or refusal to observe any of the duties
  2. No law imposing such penalty or punishment shall be called in question in any court on the ground of infringement of any of Fundamental Rights or on the ground of repugnancy to any other provision of the Constitution
  3. Duty to pay taxes should also be a Fundamental Duty of the citizens

Q21. Consider the following statements about Committee on Private Members' Bills and Resolutions

1. The committee classifies bills and allocates time for discussion on bills and resolutions introduced by private members.
2. This is a special committee of the Lok sabha only.
3. In Lok sabha it is chaired by the Deputy Speaker.

Which of the above statements is/are correct?

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

**Solution: d)**

**Justification**

This committee classifies bills and allocates time for the discussion on bills and resolutions introduced by private members (other than ministers). This is a special committee of the Lok Sabha and consists of 15 members including the Deputy Speaker as its chairman. The Rajya Sabha does not have any such committee. The same function in the Rajya Sabha is performed by the Business Advisory Committee of that House.

Q22. Consider the following statements about Motion of Thanks.

1. It is addressed by the Leader of the House.
2. The motion is put to vote in both the houses of the parliament.
3. It is addressed at the beginning of every new session of the Parliament.

Which of the above statements is/are incorrect?

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

**Solution: c)**

**Justification**

Motion of Thanks: The first session after each general election and the first session of every fiscal year is addressed by the president. In this address, the president outlines the policies and programmes of the government in the preceding year and ensuing year. This address of the president, is discussed in both the Houses of Parliament on a motion called the 'Motion of Thanks'. At the end of the discussion, the motion is put to vote. This motion must be passed in the House. Otherwise, it amounts to the defeat of the government.

Q23. When a MP has voted against his political party in the Parliament, which among the following authorities will decide on his disqualification pertaining to anti defection law?

- a) Parliamentary Committee on Anti defection
- b) President of India
- c) Election Commission of India
- d) Presiding Officer of that House of the Parliament

**Solution: d)**

**Justification**

Any question regarding disqualification arising out of defection is to be decided by the presiding officer of the House.

Q24. Which of these is/are Constitutional bodies?

1. Central Vigilance Commission
2. National Commission for STs

3. National Human Rights Commission

Select the correct code:

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

**Solution: b)**

**Justification**

The Constitutional Bodies include:

- Election Commission
- Union Public Service Commission
- State Public Service Commission
- Finance Commission
- National Commission for SCs
- National Commission for STs
- Special Officer for Linguistic Minorities
- Comptroller and Auditor General of India
- Attorney General of India
- Advocate General of the State

Q25. The Third Schedule of the Indian Constitution deal with the oath or affirmations for:

- 1. Members of Parliament
- 2. Members of State Legislative Council
- 3. The Judges of High Courts
- 4. Attorney General of India

Select the correct code:

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

**Solution: c)**

**Justification**

Third Schedule: Forms of Oaths or Affirmations for:

- 1. The Union ministers
- 2. The candidates for election to the Parliament
- 3. The members of Parliament

4. The judges of the Supreme Court
5. The Comptroller and Auditor-General of India
6. The state ministers
7. The candidates for election to the state legislature
8. The members of the state legislature
9. The judges of the High Courts

## Geography

Q1. Consider the following statements about Indian Ocean Dipole (IOD).

1. The western Indian Ocean becomes alternately warmer and then colder than the eastern part of the ocean.
2. A study has demonstrated a significant correlation between the IOD and drought in the southern half of Australia.
3. IOD can either aggravate or weaken the impact of El Nino on Indian monsoon.

Which of the above statements is/are correct?

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

**Solution: d)**

**Justification**

The Indian Ocean Dipole (IOD), also known as the Indian Niño, is an irregular oscillation of sea-surface temperatures in which the western Indian Ocean becomes alternately warmer and then colder than the eastern part of the ocean.

A 2009 study has demonstrated a significant correlation between the IOD and drought in the southern half of Australia, in particular the south-east.

During the Positive IOD, the eastern equatorial Indian Ocean off Sumatra in Indonesia becomes colder than normal while the western tropical part of the Indian Ocean near the African coast becomes unusually warm. This is beneficial for the monsoon.

During the Negative IOD the eastern equatorial Indian Ocean off Sumatra in Indonesia becomes abnormally warm while the western tropical part of the ocean near the African coast becomes relatively colder. This effect obstructs the progression of monsoon over India.

Q2. Consider the following statements about anticyclone?

1. It is an area of high pressure.
2. The wind direction is Anticlockwise in the Northern Hemisphere.

Which of the above statements is/are correct?

- a) 1 only

- b) 2 only
- c) Both
- d) None

**Solution: a)**  
**Justification**

Pattern of Wind Direction in Cyclones and Anticyclones

<i>Pressure System</i>	<i>Pressure Condition at the Centre</i>	<i>Pattern of Wind Direction</i>	<i>Pattern of Wind Direction</i>
		<i>Northern Hemisphere</i>	<i>Southern Hemisphere</i>
Cyclone	Low	Anticlockwise	Clockwise
Anticyclone	High	Clockwise	Anticlockwise

- Q3. The most prominent feature in the oceans, forming an almost continuous mountain range, is the
- a) Seamount
  - b) Deep ocean trench
  - c) Abyssal plain
  - d) Mid-ocean ridge

**Solution: d)**  
**Justification**

A mid-ocean ridge or mid-oceanic ridge is an underwater mountain range, formed by plate tectonics.

This uplifting of the ocean floor occurs when convection currents rise in the mantle beneath the oceanic crust and create magma where two tectonic plates meet at a divergent boundary. The mid-ocean ridges of the world are connected and form a single global mid-oceanic ridge system that is part of every ocean, making the mid-oceanic ridge system the longest mountain range in the world, with a total length of about 60,000 km.

- Q4. Qatar is bordered by which of the following countries.
1. United Arab Emirates
  2. Bahrain
  3. Saudi Arabia

Select the correct code:  
 a) 1, 3

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

**Solution: c)**

**Justification**

*Qatar* has one land *border*. The country *borders* Saudi Arabia to the south.

- Q5. The California Ocean current, which flows along the west coast of North America, is a
- a) Cold current, flowing north
  - b) Cold current, flowing south
  - c) Warm current, flowing south
  - d) Warm current, flowing north

**Solution: b)**

**Justification**

The California Current is a Pacific Ocean current that moves southward along the western coast of North America, beginning off southern British Columbia and ending off southern Baja California Peninsula. It is considered an Eastern boundary current due to the influence of the North American coastline on its course. It is also one of five major coastal currents affiliated with strong upwelling zones, the others being the Humboldt Current, the Canary Current, the Benguela Current, and the Somali Current. The California Current is part of the North Pacific Gyre, a large swirling current that occupies the northern basin of the Pacific.

- Q6. Which of the following port is known as “Queen of Arabian Sea”?
- a) Jawaharlal Nehru port
  - b) Marmagao port
  - c) Kochi port
  - d) New Mangalore port

**Solution: c)**

**Justification**

Kochi is a major port city on the south-west coast of India bordering the Laccadive Sea. Called the Queen of the Arabian Sea, Kochi was an important spice trading centre on the west coast of India from the 14th century onward.

**Q7.** Which of the following factors affect Ocean Salinity?

1. **Evaporation**
2. Wind
3. Influx of river water
4. Ocean currents
5. Precipitation

Select the correct code:

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

**Solution: d)**  
**Justification**

The factors affecting Ocean Salinity are:

The salinity of water in the oceans depend mainly on **evaporation and precipitation**. Precipitation is inversely related to salinity. Higher the precipitation, lower the salinity and vice-versa.

- Wind influences salinity of an area by transferring water to other areas.
- Salinity in coastal regions is influenced by the **fresh water flow** from rivers, and in Polar Regions by the processes of freezing and thawing of ice.
- The ocean currents also contribute to the salinity variations.

**Q8.** December and January are the coldest months in the northern plain. The reasons for the excessive cold in north India are:

1. Far away from the sea.
2. Snowfall in the nearby Himalayan ranges
3. Cold winds coming from Taklamakan Desert and Plateau of Tibet.

Which of the above statements is/are correct?

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

**Solution: a)**  
**Justification**

There are three main reasons for the excessive cold in north India during this season :

- (i) States like Punjab, Haryana and Rajasthan being far away from the moderating influence of sea experience continental climate.
- (ii) The snowfall in the nearby Himalayan ranges creates cold wave situation; and
- (iii) Around February, the cold winds coming from the Caspian Sea and Turkmenistan bring cold wave along with frost and fog over the north-western parts of India.

Q9. Consider the following statements about Intertropical Convergence Zone (ITCZ).

1. ITCZ is also known as doldrums
2. ITCZ is an area encircling the Earth near the Equator, where the northeast and southeast trade winds converge
3. ITCZ has no effect on tropical cyclone formation

Which of the above statements is/are correct?

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

**Solution: a)**  
**Justification**

The Intertropical Convergence Zone (ITCZ), known by sailors as the doldrums, is the area encircling Earth near the Equator, where the northeast and southeast trade winds converge. The Inter Tropical Convergence Zone (ITCZ) is a low pressure zone located at the equator, it is a zone where air tends to ascend. In July, the ITCZ is located around 20°N-25°N latitudes (over the Gangetic plain), sometimes called the monsoon trough. This monsoon trough encourages the development of thermal low over north and northwest India. Due to the shift of ITCZ, the trade winds of the southern hemisphere cross the equator between 40° and 60°E longitudes and start blowing from southwest to northeast due to the Coriolis force. It becomes southwest monsoon. In winter, the ITCZ moves southward, and so the reversal of winds from northeast to south and southwest, takes place. They are called northeast monsoons.

Q10. Which of the following explains why one side of a mountain usually has more precipitation than the other side?

- a) Temperatures are higher on one side of a mountain than on the other
- b) The atmosphere gets denser as elevation increases
- c) The land on one side is more green and lush than the other
- d) Mountains force air to rise, and air cools and releases moisture as it rises

**Solution: d)**  
**Justification**

Mountains also cause air to rise. As the wind blows across a mountain range, air rises and cools and clouds can form on the windward side. This is why windward sides of mountain ranges tend to get heavy precipitation.

When the air sinks on the leeward side of the mountain range, it is usually much drier and warmer than it was to begin with.

## Economy

Q11. Consider the following statements about Inflation Indexed Bond (IIB)

1. It is a bond issued by the Government and the Corporate sector.
2. There are no special tax concessions for these bonds.
3. They are eligible to be kept as part of Statutory Liquidity Ratio requirements of banks.

Which of the above statements is/are correct?

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

**Solution: b)**  
**Justification**

Inflation Indexed Bond (IIB) is a bond issued by the Sovereign, which provides the investor a constant return irrespective of the level of inflation in the economy. The main objective of Inflation Indexed Bonds is to provide a hedge and to safeguard the investor against macroeconomic risks in an economy.

There are no special tax concessions for these bonds. IIBs are treated as government securities (G-Sec) and therefore, would be eligible for short-sale and repo transactions and gets SLR status (i.e., they are eligible to be kept as part of Statutory Liquidity Ratio requirements of banks).

Q12. Consider the following statements about Peer to peer (P2P) lending.

1. It is a form of crowdfunding used to raise unsecured loans which are re-paid with interest.
2. Only individuals can borrow money.
3. RBI enabled P2P entities as Non-Banking Financial Company (NBFC).
4. Minimum networth requirement for these platforms is kept at Rs. 5 Cr.

Which of the above statements is/are incorrect?

- a) 1, 2
- b) 1, 2, 3

- c) 2, 4
- d) 2, 3, 4

**Solution: c)**  
**Justification**

Peer to peer (P2P) lending is a form of crowdfunding used to raise unsecured loans which are re-paid with interest. Crowdfunding refers to financing of projects with small amounts of money raised from a large number of people, with a portal serving as an intermediary. It utilises an online platform which serves as a link between borrowers and lenders.

RBI vide a Notification on 24th August, 2017, enabled P2P entities as Non-Banking Financial Company (NBFC). However, an existing NBFC will not be able to operate as an NBFC-P2P. Minimum networth requirement for these platforms is kept at Rs. 2 Cr. The borrower can either be an individual or a legal person (say a body of individuals, a HUF, a firm, a society or any artificial body, whether incorporated or not) requiring a loan.

The interest rate is not to be fixed by the platform. The interest rate for each and every loan is to be fixed separately over the electronic platform by way of a mutual agreement between the borrower and lender. Fund transfer between participants on the P2P lending platform will happen through escrow account mechanisms. All fund transfers shall be through and from bank accounts, and cash transactions are strictly prohibited.

Q13. Under Statutory Liquidity Ratio (SLR) all Scheduled Commercial Banks in India must maintain an amount in which of the following forms?

1. Cash
2. Gold
3. Treasury-Bills of the Government of India
4. Corporate Bonds
5. State Development Loans (SDLs)

Which of the above statements is/are correct?

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

**Solution: b)**  
**Justification**

The Statutory Liquidity Ratio (SLR) is a prudential measure under which (as per the Banking Regulations Act 1949) all Scheduled Commercial Banks in India must maintain an amount in one

of the following forms as a percentage of their total Demand and Time Liabilities (DTL) / Net DTL (NDTL);

[i] Cash.

[ii] Gold; or

[iii] Investments in un-encumbered Instruments that include;

(a) Treasury-Bills of the Government of India.

(b) Dated securities including those issued by the Government of India from time to time under the market borrowings programme and the Market Stabilization Scheme (MSS).

(c) State Development Loans (SDLs) issued by State Governments under their market borrowings programme.

(d) Other instruments as notified by the RBI.

If a bank fails to meet its SLR obligation, a penalty in the form of a penal interest payable is imposed.

SLR is also a tool for controlling liquidity in the domestic market via manipulating bank credit. A rise in SLR locks up increasing portion of a bank's assets in the above three categories and may squeeze out bank credit.

In the wake of the global financial crisis, the SLR was reduced from 25 percent to 24 percent in November, 2008. As of April 2016 the SLR stands at 21.25 percent.

Q14. Buoyancy of tax refers to:

a) Relationship between the changes in government's tax revenue growth and the changes in Inflation.

b) Relationship between the changes in government's tax revenue growth and the changes in GDP.

c) Relationship between the changes in government's tax revenue growth and the changes in Investment.

d) Relationship between the changes in government's tax revenue growth and the changes in demand.

**Solution: b)**

**Justification**

There is a strong connection between the government's tax revenue earnings and economic growth. The simple fact is that as the economy achieves faster growth, the tax revenue of the government also goes up.

Tax buoyancy explains this relationship between the changes in government's tax revenue growth and the changes in GDP. It refers to the responsiveness of tax revenue growth to changes in GDP. When a tax is buoyant, its revenue increases without increasing the tax rate.

Q15. Which of the following developments may not likely reduce the fiscal deficit?

1. Increasing Foreign Direct Investment (FDI)
2. Providing budgetary support to public sector enterprises
3. Waiving off farm loans.
4. Austerity measures should be adopted.

Select the correct code:

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

**Solution: b)**

**Justification**

Fiscal deficit (FD) is the difference between revenue receipts plus non-debt capital receipts on the one side and total expenditure including loans, net of repayments, on the other. It measures the gap between the government consumption expenditure including loan repayments and the anticipated income from tax and non-tax revenues.

It also indicates the borrowing requirements of the government from all sources. The bigger the gap the more the government will have to borrow or resort to printing money to make both ends meet. Indiscriminate borrowings will push the economy into debt trap, while too much deficit financing may be inflationary.

Increasing Foreign Direct Investment (FDI) tend to bring more revenue to the government there by reducing FD.

*Austerity measures* are reductions in government spending, increases in tax revenues, or both which can reduce FD.

Providing budgetary support to public sector enterprises and Waiving off farm loans increase government expenditure thus increasing FD.

Q16. Consider the following statements about Reserve Bank of India.

1. The bank was set up based on the recommendations of the Hilton–Young Commission.
2. Performs merchant banking function for the central and the state governments; also acts as their banker.
3. Manages the Foreign Exchange Management Act, 1999.
4. Issues and exchanges or destroys currency and coins not fit for circulation.

Which of the above statements is/are correct?

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

**Solution: d)**  
**Justification**

#### Main Functions

##### Monetary Authority:

- Formulates, implements and monitors the monetary policy.
- Objective: maintaining price stability while keeping in mind the objective of growth.

##### Regulator and supervisor of the financial system:

- Prescribes broad parameters of banking operations within which the country's banking and financial system functions.
- Objective: maintain public confidence in the system, protect depositors' interest and provide cost-effective banking services to the public.

##### Manager of Foreign Exchange

- Manages the Foreign Exchange Management Act, 1999.
- Objective: to facilitate external trade and payment and promote orderly development and maintenance of foreign exchange market in India.

##### Issuer of currency:

- Issues and exchanges or destroys currency and coins not fit for circulation.
- Objective: to give the public adequate quantity of supplies of currency notes and coins and in good quality.

##### Developmental role

- Performs a wide range of promotional functions to support national objectives.

##### Related Functions

- Banker to the Government: performs merchant banking function for the central and the state governments; also acts as their banker.
- Banker to banks: maintains banking accounts of all scheduled banks.

Q17. Consider the following statements about Rural Infrastructure Development Fund (RIDF).

1. Government of India created the RIDF in NABARD.
2. The eligible activities are classified into Agriculture and related sector, Social sector and rural connectivity.

3. Panchayat Raj Institutions, Self Help Groups (SHGs) and NGOs are also eligible to receive funds.

Which of the above statements is/are correct?

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

**Solution: d)**

**Justification**

The RIDF was set up by the Government in 1995-96 for financing ongoing rural Infrastructure projects. The Fund is maintained by the National Bank for Agriculture and Rural Development (NABARD). Domestic commercial banks contribute to the Fund to the extent of their shortfall in stipulated priority sector lending to agriculture. The main objective of the Fund is to provide loans to State Governments and State-owned corporations to enable them to complete ongoing rural infrastructure projects.

At present, there are 37 eligible activities under RIDF as approved by GoI. The eligible activities are classified under three broad categories i.e.

- Agriculture and related sector
- Social sector
- Rural connectivity

Eligible Institutions

- State Governments / Union Territories
- State Owned Corporations / State Govt. Undertakings
- State Govt. Sponsored / Supported Organisations
- Panchayat Raj Institutions/Self Help Groups (SHGs)/ NGOs

(provided the projects are submitted through the nodal department of State Government, i.e Finance Department)

Q18. Consider the following statements about 'Fiat Money'.

1. It is a currency that a government has declared to be legal tender.
2. It is backed by a physical commodity.
3. Its value increases during hyperinflation.

Which of the above statements is/are incorrect?

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

**Solution: b)**

## Justification

Fiat money is currency that a government has declared to be legal tender, but it is not backed by a physical commodity. The value of fiat money is derived from the relationship between supply and demand rather than the value of the material from which the money is made. Because fiat money is not linked to physical reserves, it risks becoming worthless due to hyperinflation.

Q19. Consider the following statements about fugitive economic offender.

1. It is an individual who has committed some specified offence(s) involving an amount of one hundred crore rupees or more and has absconded from India.
2. He is declared so by a 'Special Court' set up under the *Prevention of Corruption Act, 1988*.
3. The property of a fugitive economic offender, resulting from the proceeds of crime, including benami property, can be confiscated once he is declared so by the Court.
4. Properties abroad are not liable for confiscation.

Which of the above statements is/are incorrect?

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

**Solution: b)**

**Justification**

A fugitive economic offender is an individual who has committed some specified offence(s) involving an amount of one hundred crore rupees or more and has absconded from India or refused to come back to India to avoid or face criminal prosecution in India.

A Fugitive Economic Offender is a person declared so by a 'Special Court' set up under the Prevention of Money-laundering Act (PMLA), 2002 against whom an arrest warrant has been issued in respect of any of the economic offences provided in the schedule to Fugitive Economic Offenders Bill, 2018 and who has left India so as to avoid criminal prosecution, or being abroad, refuses to return to India to face criminal prosecution.

The property of a fugitive economic offender, resulting from the proceeds of crime, including benami property, can be confiscated once he is declared so by the Court. Properties abroad are also liable for confiscation.

Q20. Consider the following statements about Consumer Food Price Index (CFPI).

1. It is a measure of change in retail prices of food products consumed by a defined population group in a given area

2. It is released by Central Statistics Office (CSO) for three categories -rural, urban and combined.

3. Cereals and products constitute more than 50 percent weight within CFPI.

Which of the above statements is/are correct?

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

**Solution: a)**

**Justification**

Consumer Food Price Index (CFPI) is a measure of change in retail prices of food products consumed by a defined population group in a given area with reference to a base year.

The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation (MOSPI) started releasing Consumer Food Price Indices (CFPI) for three categories -rural, urban and combined - separately on an all India basis with effect from May, 2014.

Like Consumer Price Index (CPI), the CFPI is also calculated on a monthly basis and methodology remains the same as CPI. The base year presently used is 2012.

Cereals and products constitute the maximum weight within CFPI in all three categories -rural (36%), urban (28%) and combined (34%).

Q21. Which of the following statement about 'White Label ATMs' is correct?

- a) These ATMs are set up, owned and operated by Non-bank entities.
- b) These ATMs are set up, owned and operated by the sponsor bank whose brand is used on the ATM.
- c) ATMs owned by a service provider, but cash management and connectivity to banking networks is provided by a sponsor bank whose brand is used on the ATM.
- d) These are ATMs operated abroad to withdraw Indian currency.

**Solution: a)**

**Justification**

White Label ATMs – ATMs set up, owned and operated by non-bank entities are called "White Label ATMs" (WLAs).

Brown Label ATMs – ATMs where hardware and the lease of the ATM machine is owned by a service provider, but cash management and connectivity to banking networks is provided by a sponsor bank whose brand is used on the ATM.

Q22. Sunil Mehta Committee is related to

- a) To prepare a blueprint for doubling farmers' income by 2022.
- b) Drafting New Direct Tax Legislation.
- c) Examine the setting up of an Asset Reconstruction Company (ARC) for faster resolution of stressed assets.
- d) Resolving raising fuel prices in India.

**Solution: c)**  
**Justification**

Sunil Mehta Committee was constituted to examine the setting up of an Asset Reconstruction Company (ARC) and/or Asset Management Company (AMC) for faster resolution of stressed assets.

Q23. Which of the following factors can lead to Demand-pull inflation?

- 1. Strong consumer demand
- 2. Increase in money supply
- 3. When prices go up
- 4. Technological innovation

Select the correct code:

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

**Solution: b)**  
**Justification**

When the aggregate demand in an economy strongly outweighs the aggregate supply, prices go up. Economists describe demand-pull inflation as a result of too many dollars chasing too few goods.

If a government reduces taxes, households are left with more disposable income in their pockets. This, in turn, leads to increased consumer spending, thus increasing aggregate demand and eventually causing demand-pull inflation.

Cost-push inflation is when prices go up.

- Q24. A country can reduce its current account deficit by
- 1. Improving domestic companies' global competitiveness
  - 2. Decreasing the value of its exports relative to the value of imports
  - 3. Placing restrictions on imports, such as tariffs or quotas

Select the correct code:

- a) 1, 2

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

**Solution: c)**

**Justification**

A country can reduce its current account deficit by increasing the value of its exports relative to the value of imports. It can place restrictions on imports, such as tariffs or quotas, or it can emphasize policies that promote exports, such as import substitution, industrialization or policies that improve domestic companies' global competitiveness. The country can also use monetary policy to improve the domestic currency's valuation relative to other currencies through devaluation, which reduces the cost of a country's exports.

Current account deficit can imply that a country is spending "beyond its means". Having a current account deficit is not inherently disadvantageous if a country uses external debt to finance investments that have a higher return than the interest rate on the debt.

Q25. Consider the following statements:

1. India's tax-GDP ratio is very low compared to other developing countries or emerging markets
2. Lower tax-GDP ratio can be addressed by mobilising greater tax revenues

Select the correct code:

- a) 1 only
- b) 2 only
- c) Both
- d) None

**Solution: b)**

**Justification**

India's tax-GDP ratio does not appear low when compared to other developing countries or emerging markets. India's tax-GDP ratio appears respectable when compared to other developing countries or emerging markets.

Q26. APMCs are intended to be responsible for:

1. Providing market-led extension services to farmers.
2. Ensuring payment for agricultural produce sold by farmers on the same day.
3. Setup public private partnership in the management of agricultural markets.

Which of the above statements is/are correct?

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

**Solution: d)**  
**Justification**

Agricultural Produce Market Committee (APMC) is a statutory market committee constituted by a State Government in respect of trade in certain notified agricultural or horticultural or livestock products, under the Agricultural Produce Market Committee Act issued by that state government.

APMCs are intended to be responsible for:

- ensuring transparency in pricing system and transactions taking place in market area;
- providing market-led extension services to farmers;
- ensuring payment for agricultural produce sold by farmers on the same day;
- promoting agricultural processing including activities for value addition in agricultural produce;
- Publicizing data on arrivals and rates of agricultural produce brought into the market area for sale; and
- Setup and promote public private partnership in the management of agricultural markets

Q27. In India, Alternative Investment Funds (AIFs) include:

1. Mutual funds
2. Venture Capital Fund
3. Private equity funds
4. Infrastructure funds

Select the correct code:

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

**Solution: b)**  
**Justification**

Anything alternate to traditional form of investments gets categorized as alternative investments. In India, alternative investment funds (AIFs) are defined in Regulation 2(1) (b) of Securities and Exchange Board of India (Alternative Investment Funds) Regulations, 2012.

The definition of AIFs includes venture Capital Fund, hedge funds, private equity funds, commodity funds, Debt Funds, infrastructure funds, etc, while, it excludes Mutual funds or collective investment Schemes, family trusts, Employee Stock Option / purchase Schemes, employee welfare trusts or gratuity trusts, 'holding companies' within the meaning of Section 4 of the Companies Act, 1956, securitization trusts regulated under a specific regulatory framework, and funds managed by securitization company or reconstruction company which is registered with the RBI under Section 3 of the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002.

Investors in these funds are largely institutional, high net worth individuals and corporates.

Q28. Which of the following statements about Monetary Policy Framework Agreement is correct?

- a) It is an agreement between Government and Reserve Bank of India (RBI) on the maximum tolerable inflation rate that RBI should target to achieve price stability.
- b) It is an agreement between Government and Reserve Bank of India (RBI) on the minimum inflation rate that RBI should target to achieve growth.
- c) It is an agreement between Banks and Reserve Bank of India (RBI) to ensure that the changes in the Interest rates are passed on to the customers.
- d) Both b and c

**Solution: a)**

**Justification**

Monetary Policy Framework Agreement is an agreement reached between Government and the central bank in India – The Reserve Bank of India (RBI) - on the maximum tolerable inflation rate that RBI should target to achieve price stability.

The Reserve Bank of India and Government of India signed the Monetary Policy Framework Agreement on 20 February 2015 which made inflation targeting and achieving price stability the responsibilities of RBI. Subsequently, the government, while unveiling the Union Budget for 2016-17 in the Parliament, proposed to amend the Reserve Bank of India (RBI) Act, 1934 for giving a statutory backing to the aforementioned Monetary Policy Framework Agreement and for setting up a Monetary Policy Committee (MPC).

Q29. With reference to the Financial Stability and Development Council (FSDC), consider the following statements:

- 1. It is headed by the Governor of RBI
- 2. It will monitor macro prudential supervision of the economy, including the functioning of large financial conglomerates.
- 3. It will focus on financial literacy and financial inclusion.

Which of the above statements is/are correct?

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

d) 1, 2, 3

**Solution: c)**

**Justification**

In pursuance of the announcement made in the Union Budget 2010–11 and with a view to strengthen and institutionalize the mechanism for maintaining financial stability and enhancing inter-regulatory coordination, Indian Government has setup an apex-level Financial Stability and Development Council (FSDC).

The Chairman of the FSDC is the Finance Minister of India and its members include the heads of the financial sector regulatory authorities (i.e, SEBI, IRDA, RBI, PFRDA and FMC) , Finance Secretary and/or Secretary, Department of Economic Affairs (Ministry of Finance), Secretary, (Department of Financial Services, Ministry of Finance) and the Chief Economic Adviser.

This Council would monitor macro prudential supervision of the economy, including the functioning of large financial conglomerates. It will address inter-regulatory coordination issues and thus spur financial sector development. It will also focus on financial literacy and financial inclusion. What distinguishes FSDC from other such similarly situated organizations across the globe is the additional mandate given for development of financial sector.

A sub-committee of FSDC has also been set up under the chairmanship of Governor RBI. The Sub-Committee discusses and decides on a range of issues relating to financial sector development and stability including substantive issues relating to inter-regulatory coordination.

Q30. Consider the following statements about National Anti-profiteering Authority (NAA).

1. It is headed by the Finance Minister.

2. The Authority's core function is to ensure that the benefits of the reduction in GST rates are passed on to the ultimate consumers.

Which of the above statements is/are correct?

a) 1 only

b) 2 only

c) Both

d) None

**Solution: b)**

**Justification**

The National Anti-profiteering Authority (NAA) is the institutional mechanism under GST law to check the unfair profit-making activities by the trading community. The Authority's core function is to ensure that the benefits of the reduction in GST rates on goods and services made by GST Council and proportional change in the Input tax credit passed on to the ultimate consumers.

National Anti-profiteering Authority is headed by a senior officer of the level of Secretary to the Government of India. There will be four Technical Members from the Centre and/or the States.

## Art and Culture

Q1. Consider the following statements:

1. Jaimini Brahmana speaks collectively on dance only.
2. In Hindustani music, Dhrupad is the pure music without distraction of words.
3. There were no evidence of musical instruments found at the sites of Indus valley civilization.

Which of the above statements is/are incorrect?

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

**Solution: b)**

**Justification**

The Jaimini Brahmana speaks collectively of dance and music.

Dhrupad is *pure music without distraction of words*.

Musical instruments like seven-holed flute and Ravanahatha, have been recovered from the sites of Indus Valley Civilization.

Q2. Consider the following with reference to Central Indian paintings.

1. They take inspiration from Puranas and Indian folk-lore.
2. Vaishnavism, Saivism and Sakti exercised tremendous influence on these paintings.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both
- d) None

**Solution: c)**

**Justification**

- Unlike Mughal painting which is primarily secular, the art of painting in Central India, Rajasthani and the Pahari region etc. is deeply rooted in the Indian traditions, taking inspiration from Indian epics, religious texts like the Puranas, love poems in Sanskrit and other Indian languages, Indian folk-lore and works on musical themes.

The cults of Vaishnavism, Saivism and Sakti exercised tremendous influence on the pictorial art of these places.

Q3. Consider the following statements with reference to Sangam Literature

1. Sangam literature dealt both with personal lives such as love and relationships as well as ethics, heroism, values and social customs.
2. Only men were allowed to compose sangam literature.

Which of the above statements is/are incorrect?

- a) 1 only
- b) 2 only
- c) Both
- d) None

**Solution: b)**

**Justification**

- The poems belonging to the Sangam literature were composed by Tamil poets, both men and women, from various professions and classes of society.
- Sangam Poems falls into two categories: the 'inner field' (*Agam*), and the 'outer field' (*Puram*) as described even in the first available Tamil grammar, the *Tolkappiyam*.
- The 'inner field' topics refer to personal or human aspects, such as love and sexual relationships, and are dealt with in a metaphorical and abstract manner.
- The 'outer field' topics discuss all other aspects of human experience such as heroism, valour, ethics, benevolence, philanthropy, social life, and customs.

Q4. Consider the following statements

1. According to this philosophy, Vedas are eternal and possess all knowledge.
2. Religion means the fulfilment of duties prescribed by the Vedas.
3. This philosophy encompasses the Nyaya-Vaisheshika systems and emphasizes the concept of valid knowledge.

The above statements are related to?

- a) Mimamsa School
- b) Vedanta School
- c) Yoga School
- d) Samkhya School

**Solution: a)**

**Justification**

- Mimamsa philosophy is basically the analysis of interpretation, application and the use of the text of the Samhita and Brahmana portions of the Veda.

- According to Mimamsa philosophy, Vedas are eternal and possess all knowledge, and religion means the fulfilment of duties prescribed by the Vedas.
- This philosophy encompasses the Nyaya-Vaisheshika systems and emphasizes the concept of valid knowledge.

Q5. Consider the following about Kalighat paintings which originated in Bengal.

1. The school produced paintings that were irreproducible by lithography.
2. The school restricted itself to the depiction of natural, nationalistic and secular themes.

Which of the above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None

**Solution: d)**

**Justification**

- The paintings over a period of time developed as a distinct school of Indian painting. An important achievement of the Kalighat artistes was that they made simple paintings and drawings, which could easily be reproduced by lithography.
- From the depiction of Hindu gods, goddesses, and other mythological characters, the Kalighat paintings developed to reflect a variety of themes.
- The artists also chose to portray secular themes and personalities and in the process played a role in the Independence movement. They painted heroic characters like Tipu Sultan and Rani Lakshmibai.

Q6. Which of the following is/are famous for Sun temples?

1. Arasavalli
2. Amarakantak
3. Omkareshwar

Select the correct answer using the code given below:

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

**Solution: a)**

**Justification**

- Arasavalli in Andhra Pradesh has one of the prominent Sun temple or suryanarayan temple. Temple at Amarkantak is dedicated to Goddess Narmada and Lord Shiva.
- Moreover, Omkareshwar temple on the banks of Narmada River in Madhya Pradesh is one of the 12 jyotirlingas dedicated to lord shiva.

Q7. With reference to the history of philosophical thought in India, consider the following statements regarding Samkhya School.

1. Samkhya does not accept the theory of rebirth or transmigration of soul.
2. Samkhya holds that it is the self-knowledge that leads to liberation and not any exterior influence or agent.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both
- d) None

**Solution: b)**

**Justification**

- The Samkhya School denies the existence of God. However, rebirth and transmigration of soul are inherent in the Samkhya School.
- Liberation results from the disappearance of the limitations of self-awareness.

Q8. With reference to Giddha, Ghoomar and Garba, consider the following statements:

1. All three dances are primarily performed by women only
2. All three are folk dances

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both
- d) None

**Solution: b)**

**Justification**

- First statement is wrong because Garba is performed equally by both men and women. Other two dances are primarily performed by women.

Q9. Which of the following are correctly matched

Reform movement:	Region of influence
1. Sri Narayana Dharma Paripalana Sabha:	Karnataka
2. Sarin Sabha:	Punjab
3. Paramhansa Mandali:	Madhya Pradesh
4. Kayastha Sabha :	Uttar Pradesh

Select from the codes below

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

**Solution: b)**

**Justification**

- The Paramahansa Mandali and the Prarthana Samaj is in Maharashtra.
- There were several other regional and caste movements' like the Kayasth Sabha in Uttar Pradesh and the Sarin Sabha in Punjab.
- The backward castes also started the work of reformation with the Satya Sodhak Samaj in Maharashtra and the Sri Narayana Dharma Paripalana Sabha in Kerala.

Q10. Which of these is NOT one of the eight components of Yoga as described by Patanjali?

- a) Yamas
- b) Niyama
- c) Asana
- d) Mulahara

**Solution: d)**

**Justification**

Other components include Praṇayama, Pratyahara, Dharaṇa, Dhyana and Samadhi.

- These are a part of the Yoga Sutras of Patanjali which was the most translated ancient Indian text in the medieval era, having been translated into about forty Indian languages and two non-Indian languages: Old Javanese and Arabic.

Q11. MANIYARO *a variety of folk dance is of which state?*

- a) Assam
- b) Andhra Pradesh
- c) Gujarat
- d) Manipur

**Solution: c)**

**Justification**

- MANIYARO is a variety of folk dance of Gujarat.
- In Gujarat and especially in Saurashtra region, generally Men wear traditional costumes, having preset sized wooden sticks and present Maniyaro.
- Maniyaro is usually being played with the ancient instruments like Drum, Flute, and RAVAN Hattho etc.

Q12. Consider the following statements about National School of Drama.

1. It was set up by the Sangeet Natak Akademi as one of its constituent units in 1959.
2. It is fully financed by the Ministry of Culture, Government of India.
3. The School has two performing wings – the Repertory Company and Theatre-in-Education Company.

Which of the above statements is/are correct?

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

**Solution: d)**

**Justification**

The National School of Drama is one of the foremost theatre training institutions in the world and the only one of its kind in India. It was set up by the Sangeet Natak Akademi as one of its constituent units in 1959. In 1975, it became an independent entity and was registered as an autonomous organization under the Societies Registration Act XXI of 1860, fully financed by the Ministry of Culture, Government of India.

The School has two performing wings – the Repertory Company and Theatre-in-Education Company.

The Repertory Company was started in 1964 – with the objective of providing a platform where graduates of the School could perform plays professionally.

The second performing wing the ‘Theatre-In-Education Company’ (Sanskar Rang Toli) was established in October 16, 1989, and is one of the most important theatre education resource centres in the country.

Q13. Consider the following pairs:

Classical Dance	Feature
1. Bharatanatyam	Fire Dance
2. Kuchipudi	Lasya and Tandava elements
3. Odissi	Mobile Sculpture
4. Mohiniattam	Tandava aspect is dominant

Which of the above is correctly matched?

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

**Solution: b)**  
**Justification**

Bharatnatyam is often referred to as the 'fire dance', as it is the manifestation of fire in the human body. Most of the movements in Bharatnatyam resemble to that of a dancing flame.

Kuchipudi - Both Lasya and Tandava elements are important in the Kuchipudi dance form.

Odissi – Odissi dance form is unique in its representation of gracefulness, sensuality and beauty. The dancers create intricate geometrical shapes and patterns with her body. Hence, it is known as 'mobile sculpture'.

Mohiniattam - The Lasya aspect (beauty, grace) of dance is dominant in a Mohiniattam recital. Hence, it is mainly performed by female dancers.

Q14. Which of the following temples have 'Nagara Style of Architecture'?

1. Sun Temple at Konark
2. Lingaraja Temple at Bhubaneswar
3. Vishwanath Temple at Khajuraho
4. Doddabasappa temple at Dambal

Select the correct code:

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

**Solution: c)**  
**Justification**

Doddabasappa temple at Dambal have Vesara style of architecture.

Q15. Consider the following pairs.

Temple	Country
1. Prambanan Temple	Indonesia
2. Angkoar Vat	Cambodia
3. Pashupatinath Temple	Sri Lanka
4. Munneswaram Temple	Nepal

Which of the above are correctly matched?

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

d) 2, 3, 4

**Solution: b)**

**Justification**

Pashupatinath Temple – Nepal  
Munneswaram Temple – Sri Lanka

Q16. The prominent construction works undertaken during Akbar's reign are:

1. Agra Fort
2. Ibadat Khana
3. Buland Darwaza

Select the correct code:

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

**Solution: d)**

**Justification**

Akbar took a keen interest in the development of art and architecture during his reign. The principal feature of the constructions during Akbar's reign was the use of red sandstone. Some of the prominent construction works undertaken during Akbar's reign are described below:

- Agra Fort
  - It was one of the first constructions started during the reign of Akbar. However, most of the structures present inside the fort were done during the reign of Shah Jahan.
- Fatehpur Sikri
  - One of the highlights of Indo-Islamic architecture was the creation of a new capital city by Akbar at Fatehpur Sikri.
  - Some of the important buildings inside the city are:
    - Buland Darwaza
    - Salim Chisti's tomb
    - Panch Mahal
    - Jodha Bai's palace or Mariam-uz-Zamani's Palace
    - Ibadat Khana
    - Pachisi Court
    - Hiran Minar

Q17. Consider the following statements about Kalbelia.

1. Folk dance performed by the women of the Kalbelia community of Gujarat.
2. 'Been' is the popular musical instrument of this dance form.
3. The UNESCO has inscribed Kalbelia folk songs and dances in the Representative List of

the Intangible Cultural Heritage of Humanity.

Which of the above statements is/are correct?

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

**Solution: b)**

**Justification**

Kalbelia is a sensuous folk dance performed by the women of the Kalbelia community of Rajasthan. The costumes and dance movement are similar to that of the serpents. 'Been' (wind instrument played by snake charmers) is the popular musical instrument of this dance form. The UNESCO has inscribed Kalbelia folk songs and dances in the Representative List of the Intangible Cultural Heritage of Humanity in 2010.

Q18. With reference to Giddha, Gangore and Jhumar, consider the following statements:

1. All three dances are primarily performed by women only
2. All three are folk dances

Select the correct code:

- a) 1 only
- b) 2 only
- c) Both
- d) None

**Solution: b)**

**Justification**

Jhumar is a popular harvest dance, performed by the tribal people of Jharkhand and Odisha. It has two variations – Janani Jhumar, performed by women and Mardana Jhumar, performed by men. It is a major attraction at many fairs and festivals.

Q19. Which of the following is the earliest treatise on mathematics?

- a) Aryabhattacharya
- b) Brahmasputa Siddhantika
- c) Siddhanta Shiromani
- d) Sulvasutra

**Solution: d)**  
**Justification**

The earliest book on mathematics was Sulvasutra written by Baudhayana in the 6th century BC. There is a mention of 'Pi' and even some concepts very similar to Pythagoras theorem in the Sulvasutra.

Q20. Consider the following statements.

1. This Veda is also known as Brahma Veda
2. It is mostly concerned with peace and prosperity of the human society
3. It focuses on treatment of several ailments

The above statements refer to

- a) Rig Veda
- b) Sama Veda
- c) Atharva Veda
- d) Yajur Veda

**Solution: c)**  
**Justification**

Atharva Veda

This Veda is also known as Brahma Veda and has been attributed to two rishis called Atharvah and Angira, respectively. While it is mostly concerned with peace and prosperity of the human society and covers all aspects of a man's daily life, it specifically focuses on treatment of several ailments. The book is known to prescribe treatment for almost 99 diseases.

## History

Q1. Consider the following pairs.

Governor-General	Events in their Rule
1. Cornwallis	Introduction of Civil services
2. Wellesley	Telegraph and postal reforms
3. William Bentinck	Introduction of English as official language
4. Dalhousie	Introduction of Subsidiary Alliance

Which of the above pairs are correctly matched:

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

**Solution: b)**  
**Justification**

Cornwallis – Europeanisation of administrative machinery and Introduction of Civil services.

Wellesley - Introduction of Subsidiary Alliance, 1798.

William Bentinck – Educational reforms and introduction of English as the official language.

Dalhousie - Telegraph (4000 miles of telegraph lines to connect Calcutta with Bombay, Madras and Peshawar) and postal (Post Office Act, 1854) reforms.

Q2. Consider the following statements.

1. Charter Act of 1813 promoted modern sciences in the country.
2. Macaulay's Minute led to the promotion of mass education.
3. Hunter Education Commission report is considered as the 'Magna Carta of English Education in India'.

Which of the above statements is/are incorrect?

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

**Solution: c)**

**Justification**

The Charter Act of 1813 incorporated the principle of encouraging learned Indians and promoting knowledge of modern sciences in the country.

Macaulay held the view that "Indian learning was inferior to European learning". The government soon made English as the medium of instruction in its schools and colleges and opened a few English schools and colleges instead of a large number of elementary schools, thus neglecting mass education.

In 1854, Charles Wood prepared a despatch on an educational system for India. Considered the "Magna Carta of English Education in India", this document was the first comprehensive plan for the spread of education in India.

Q3. Muhammad Ali Jinnah in March 1929 gave fourteen points for safeguarding the rights and interests of the Muslims. Which of the following were included in the fourteen points?

1. Federal Constitution with residual powers to provinces.
2. One-third Muslim representation in the central legislature.
3. Separation of Sindh from Bombay.
4. Not separate electorates, but joint electorates with reserved seats for Muslims.

Which of the above statements is/are correct?

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

**Solution: c)**  
**Justification**

The fourteen points were as follows.

1. Federal Constitution with residual powers to provinces.
2. Provincial autonomy.
3. No constitutional amendment by the centre without the concurrence of the states constituting the Indian federation.
4. All legislatures and elected bodies to have adequate representation of Muslims in every province without reducing a majority of Muslims in a province to a minority or equality.
5. Adequate representation to Muslims in the services and in self-governing bodies.
6. One-third Muslim representation in the central legislature.
7. In any cabinet at the centre or in the provinces, one-third to be Muslims.
8. Separate electorates.
9. No bill or resolution in any legislature to be passed if three-fourths of a minority community consider such a bill or resolution to be against their interests.
10. Any territorial redistribution not to affect the Muslim majority in Punjab, Bengal and NWFP.
11. Separation of Sindh from Bombay.
12. Constitutional reforms in the NWFP and Baluchistan.
13. Full religious freedom to all communities.
14. Protection of Muslim rights in religion, culture, education and language.

Q4. Which of the following is/are correct about Pathshalas under British India?

1. These were institutions working on the principle of decentralized governance with minimum of rules
2. Wood's Despatch was against the system of Pathshalas.

Select the correct answer using codes below.

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

**Solution: a)**  
**Justification**

In the 1830s, William Adam, a Scottish missionary, toured the districts of Bengal and Bihar. He had been asked by the Company to report on the progress of education in vernacular schools. Adam found that there were over 1 lakh pathshalas in Bengal and Bihar.

These were small institutions with no more than 20 students each. But the total number of children being taught in these pathshalas was considerable— over 20 lakh. These institutions were set up by wealthy people, or the local community. At times they were started by a teacher (guru). (Hence statement 1 is correct).

The system of education was flexible. Few things that you associate with schools today were present in the pathshalas at the time. There were no fixed fee, no printed books, no separate school building, no benches or chairs, no blackboards, no system of separate classes, no rollcall registers, no annual examinations, and no regular time-table.

After 1854 the Company decided to improve the system of vernacular education. It felt that this could be done by introducing order within the system, imposing routines, establishing rules, ensuring regular inspections.

It appointed a number of government pandits, each in charge of looking after four to five schools. The task of the pandit was to visit the pathshalas and try and improve the standard of teaching.

Each guru was asked to submit periodic reports and take classes according to a regular timetable. Teaching was now to be based on textbooks and learning was to be tested through a system of annual examination.

Wood's Despatch regularized the Pathshalas.

Q5. The Lahore Session of the Indian National Congress (1929) is very important in history, because:

1. The Congress passed a resolution demanding complete independence.
2. The rift between the extremists and moderates was resolved in that Session.
3. A resolution was passed rejecting the two-nation theory in that Session

Which of the statements given above is/are correct?

- a) 1 only
- b) 2, 3
- c) 1, 3
- d) None

**Solution: a)**

**Justification**

The following major decisions were taken at the Lahore session.

- The Round Table Conference was to be boycotted.
- Complete independence was declared as the aim of the Congress.

- Congress Working Committee was authorised to launch a programme of civil disobedience including non-payment of taxes and all members of legislatures were asked to resign their seats.
- January 26, 1930 was fixed as the first Independence (Swarajya) Day, to be celebrated everywhere.

The Lucknow session of the Indian National Congress, presided over by a Moderate, Ambika Charan Majumdar, readmitted the Extremists led by Tilak to the Congress fold. (Statement 2).

Jinnah's Two Nations Theory came up in March 1940, whereas the Lahore Session of the Indian National Congress was held in 1929.

- Q6. With reference to medieval kingdoms of North-eastern India what was the position of paiks?
- a) They were the patrons of literature and arts.
  - b) They were mercenaries recruited from other kingdoms.
  - c) They held large amount of land and gold and donated it for public welfare.
  - d) They were forced to work for the state.

**Solution: d)**

**Justification**

The Ahoms migrated to the Brahmaputra valley from present-day Myanmar in the thirteenth century. They created a new state by suppressing the older political system of the bhuiyans (landlords).

The Ahom state depended upon forced labour. Those forced to work for the state were called paiks.

A census of the population was taken. Each village had to send a number of paiks by rotation. People from heavily populated areas were shifted to less populated ones.

- Q7. Kornish in medieval history refers to:
- a) A kind of salutation.
  - b) A kind of revenue system.
  - c) A title given to the courtier
  - d) A kind of crop brought to India by the British.

**Solution: a)**

**Justification**

*Kornish* was a form of ceremonial salutation in which the courtier placed the palm of his right hand against his forehead and bent his head. It suggested that the subject placed his head – the seat of the senses and the mind – into the hand of humility, presenting it to the royal assembly.

Q8. Which of the following statements is/are correct about Iltutmish, the medieval ruler?

1. He founded the Ilbari dynasty.
2. He introduced the Arabic Coinage into India.
3. He introduced the Persian festival of Nauroz.

Select the correct code:

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

**Solution: c)**

**Justification**

**Iltutmish belonged to the Ilbari tribe and hence his dynasty was named as Ilbari dynasty. Iltutmish introduced the Arabic coinage into India and the silver tanka weighing 175 grams became a standard coin in medieval India. The silver tanka remained the basis of the modern rupee.**

**Balban introduced the Persian festival of Nauroz to impress the nobles and people with his wealth and power.**

Q9. Which of the following statements is/are correct?

1. Samudragupta was an ardent follower of Vaishnavism.
2. He had very little interest in music.
3. He patronized the great Buddhist scholar Vasubandhu.

Select the correct answer using the codes below:

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

**Solution: c)**

**Justification**

Samudragupta's military achievements remain remarkable in the annals of history. He was equally great in his other personal accomplishments. The Allahabad Pillar inscription speaks of his magnanimity to his foes, his polished intellect, his poetic skill and his proficiency in music. It calls him Kaviraja because of his ability in composing verses. His image depicting him with

Veena is found in the coins issued by him. It is the proof of his proficiency and interest in music. He was also a patron of many poets and scholars, one of whom was Harisena. Thus he must be credited with a share in the promotion of Sanskrit literature and learning, characteristic of his dynasty. *He was an ardent follower of Vaishnavism but was tolerant of other creeds. He evinced keen interest in Buddhism and was the patron of the great Buddhist scholar Vasubandu.*

Q10. Consider the following dynasties of Medieval India.

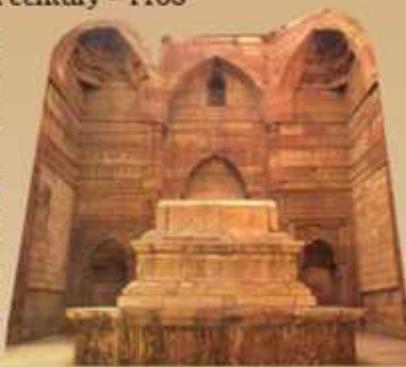
1. Rajput
2. Lodi
3. Tughluq
4. Sayyid

The correct chronological order in which they appeared in India is?

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

**Solution: d)**

**Justification**

<b>RAJPUT DYNASTIES</b>		
Tomaras	early twelfth century - 1165	
Ananga Pala	1130 - 1145	
Chauhans	1165 - 1192	
Prithviraj Chauhan	1175 - 1192	
<b>EARLY TURKISH RULERS 1206-1290</b>		
Qutbuddin Aybak	1206 - 1210	
Shamsuddin Iltutmish	1210 - 1236	
Raziyya	1236 - 1240	
Ghiyasuddin Balban	1266 - 1287	
		<i>Iltutmish's tomb</i>
<b>KHALJI DYNASTY 1290 - 1320</b>		
Jalaluddin Khalji	1290 - 1296	
Alauddin Khalji	1296 - 1316	
<b>TUGHLUQ DYNASTY 1320 - 1414</b>		
Ghiyasuddin Tughluq	1320 - 1324	
Muhammad Tughluq	1324 - 1351	
Firuz Shah Tughluq	1351 - 1388	
<b>SAYYID DYNASTY 1414 - 1451</b>		
Khizr Khan	1414 - 1421	
<b>LODI DYNASTY 1451 - 1526</b>		
Bahlul Lodi	1451 - 1489	
		
		<i>Firuz Shah Tughluq's tomb</i>

- Q11. Which of the following provisions are related to the Charter Act of 1813?
- It ended the activities of the East India Company as a commercial body.
  - It introduced for the first time, local representation in the Central Legislative Council.
  - For the first time explicitly defined the constitutional position of the British territories in India.
  - It separated for the first time, the legislative and executive functions of the Governor-General's council.

**Solution: c)**

## Justification

Statement a – Charter Act of 1833.

Statement b and d - Charter Act of 1853.

- Q12. Which of the following statement is correct regarding Hunter Education Commission?
- Government of India must assume responsibility for education of the masses.
  - Indian learning was inferior to European learning.
  - For improving university education, improving secondary education was a necessary.
  - Primary education should be imparted through vernacular.

**Solution: d)**

### Justification

Hunter Education Commission (1882-83): Earlier schemes had neglected primary and secondary education. The Hunter Commission mostly confined its recommendations to primary and secondary education. The commission emphasised that state's special care is required for extension and improvement of primary education, and that primary education should be imparted through vernacular.

- Q13. By the time Gandhiji arrived in India
- Indian National Congress (INC) was already established in India
  - He had already forged a technique of non-violent Satyagraha in South Africa
  - The first Swadeshi movement had already been waged

Select the correct code:

- 1, 2
- 2, 3
- 1, 3
- 1, 2, 3

**Solution: d)**

### Justification

It was in South Africa that Mahatma Gandhi first forged the distinctive techniques of non-violent protest known as Satyagraha.

By the time Gandhiji arrived in India, the Indian National Congress had branches in most major cities and towns. Through the Swadeshi movement of 1905-07 it had greatly broadened its appeal among the middle classes.

- Q14. The partition of Bengal by Lord Curzon intended to
- Curb Bengali influence
  - Divide people on the basis of religion
  - Achieve administration convenience

Which of the above statements is/are correct?

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

**Solution: d)**

**Justification**

The reason behind the partition that was officially announced was that the Bengal province was too large to be administered by a single governor and so it would be partitioned on administrative purpose. The real reason behind the partition was political and not administrative. East Bengal was dominated by the Muslims and West Bengal by the Hindus. Partition was yet another part of the divide and rule policy.

Q15. Which of the following Indian activist, thinker and social reformer was famously known as Lokhitwadi?

- a) Mahadev Govind Ranade
- b) Akshay Kumar Dutt
- c) Gopal Hari Deshmukh
- d) Jyotiba Phule

**Solution: c)**

**Justification**

Gopal Hari Deshmukh, popularly known as “Lokahitwadi”, was a product of the Western learning in India. A great social reformer and rational thinker, “Lokahitwadi” urged the people to be self-reliant and seek Western learning. He advocated humanitarianism and social service as the two driving forces in India.

Q16. The Sangam texts mention prominently the ports of

1. Musiri
2. Tondi
3. Korkai
4. Poduke (Arikamedu)

Which of the above statements is/are correct?

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

**Solution: b)**  
**Justification**

The Tamils of the Sangam age had trading contacts with the Mediterranean world (Greece and Rome), Egypt, China, Southeast Asia and Sri Lanka.

The literary works like Silappadikaram, Manimekalai and Pattinappalai frequently refer to the contact with the Greek and Roman traders. This period marked the height of the Indo-Roman trade.

The Sangam texts mention prominently only the ports of Musiri, Puhar (Kaveripattinam) and Korkai, the three great ports of the three great rulers of the times.

However, the Periplus (foreign accounts) refers to the ports of Tondi, Musiri and Comari (Cape Comorin / Kanyakumari), Colchi (Korkai), Poduke (Arikamedu) and Sopatma.

- Q17. He was a follower of Jainism in the early part of his career and converted to Saivism later. He is hailed as 'Vichitrachitta' who constructed a temple for Brahma, Vishnu and Siva without the use of bricks, timber, metal and mortar. Who is the ruler?
- a) Rajaraja Chola 1
  - b) Kadambas of Banavasi
  - c) Harihara 1
  - d) Mahendravarman I

**Solution: d)**  
**Justification**

Mahendravarman I was converted to Saivism which led him to build a Siva temple at Tiruvadi.

- He was a great builder of cave temples. The Mandagappattu inscription hails him as Vichitrachitta who constructed a temple for Brahma, Vishnu and Siva without the use of bricks, timber, metal and mortar.
- His rock-cut temples are found in a number of places like Tiruchirappalli.
- His title Chitrakarapuli reveals his talents in painting. He is also regarded as an expert in music.
- The music inscription at Kudumianmalai is ascribed to him.

- Q18. Why did Buddhism start declining in India in the early medieval times?
1. Vaishnavism, Shaivism and other Hindu traditions became increasingly popular, and Brahmins developed a new relationship with the state
  2. The Kings of Gupta dynasty were strongly opposed to Buddhism.

Select the correct code:

- a) 1 only
- b) 2 only
- c) Both

d) None

**Solution: a)**

**Justification**

With the Gupta dynasty (~4th to 6th century), the growth in ritualistic Mahayana Buddhism, and the adoption of Buddhist ideas into Hindu schools, the differences between Buddhism and Hinduism blurred. **Vaishnavism, Shaivism and other Hindu traditions became increasingly popular, and Brahmins developed a new relationship with the state. As the system grew, Buddhist monasteries gradually lost control of land revenue.** In parallel, the Gupta kings built Buddhist temples such as the one at Kushinagara, and monastic universities such as those at Nalanda, as evidenced by records left by three Chinese visitors to India. According to Hazra, Buddhism declined in part because of the rise of the Brahmins and their influence in socio-political process.

Q19. Consider the following statements.

1. Most of the Ashokan's inscriptions were in Pali language.
2. Arikamedu is a coastal settlement known for it being a site for unloading goods from distant lands.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both
- d) None

**Solution: b)**

**Justification**

The most famous Mauryan ruler was Ashoka. He was the first ruler who tried to take his message to the people through inscriptions. Most of Ashoka's inscriptions were in Prakrit and were written in the Brahmi script.

Between 2200 and 1900 years ago, Arikamedu was a coastal settlement where ships unloaded goods from distant lands. A massive brick structure, which may have been a warehouse, was found at the site.

Q20. Consider the following statements about Chalukyas.

1. The Chalukya administration was highly decentralized.
2. They developed the dravidian style in the building of structural temples.
3. Their cave temples are found in Ajanta, Ellora and Nasik.

Which of the above statements is/are incorrect?

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

- c) 1, 3
- d) 2 only

**Solution: a)**  
**Justification**

The Chalukya administration was highly centralized unlike that of the Pallavas and the Cholas. Village autonomy was absent under the Chalukyas.

The Chalukyas were great patrons of art. They developed the vesara style in the building of structural temples. However, the vesara style reached its culmination only under the Rashtrakutas and the Hoysalas.

- Cave temple architecture was also famous under the Chalukyas.
- The best specimens of Chalukya paintings can be seen in the Badami.

## Environment

Q1. Which of the following adaptations is/are found in the mangrove plants?

1. Absence of stomata.
2. Turn their leaves to reduce exposure to the sunlight.
3. Pneumatophores
4. Salt glands

Select the correct code:

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

**Solution: c)**  
**Justification**

Mangroves can restrict the opening of their stomata. Allows the mangrove to preserve fresh water, vital to survive in a saline environment.

- Able to turn their leaves to reduce exposure to the sunlight (reduces water loss as a result of evaporation)

- The pneumatophores allow the plant to breath, however also change in size to stop the intake

of salt from the water.

- *Accumulation/ storage*—in some mangroves, salt accumulates in selected parts of the plant, for example in some leaves, until it reaches a certain concentration. That part of the plant is then shed.

- *Excretion*— salt glands on the surface of their leaves, which release salt.

- *exclusion*—the membranes in the root system of some mangroves filter the sea water, allowing water to pass into the plant, but excluding most of the salt. (ROOT SYSTEMS HAVE STRUCTURES TO EXCLUDE THE SALT)

Q2. Which of the following are responsible for land degradation?

1. Overgrazing
2. Salination
3. Water-logging
4. Landslides
5. Practice of Jhum cultivation

Select the correct code:

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

**Solution: c)**

**Justification**

**Main Causes of Land Degradation are:**

Deforestation

Excessive Use of Fertilizers and Pesticides

Overgrazing

Salination

Desertification

Soil erosion

Wasteland

Landslides

**Over-Irrigation**

**Floods and Droughts**

Practice of Jhum or shifting cultivation

Forest fires

Q3. Consider the following pairs.

Disease	Pollutant
1. Itai-itai disease	Cadmium
2. Minamata disease	Mercury
3. Blue Baby Syndrome	Arsenic

Which of the above pairs is/are correctly matched?

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

**Solution: c)**

**Justification**

Itai-itai disease was the name given to the mass cadmium poisoning of Toyama Prefecture, Japan, starting around 1912. Cadmium poisoning can also cause softening of the bones and kidney failure.

Minamata disease is a neurological syndrome caused by severe mercury poisoning. Minamata disease was first discovered in Minamata city in Kumamoto prefecture, Japan, in 1956.

The most common cause of *blue baby syndrome* is water contaminated with nitrates.

Q4. Which of the following pyramids can be both upright and inverted?

- 1. Pyramid of Biomass
- 2. Pyramid of Numbers
- 3. Pyramid of Productivity

Select the correct code:

- a) 1, 2

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

**Solution: a)**

**Justification**

A "pyramid of numbers" shows graphically the population of each level in a food chain. Often, there are more producers than consumers, however, it can also be seen in many ecosystems that there are more primary consumers than producers.

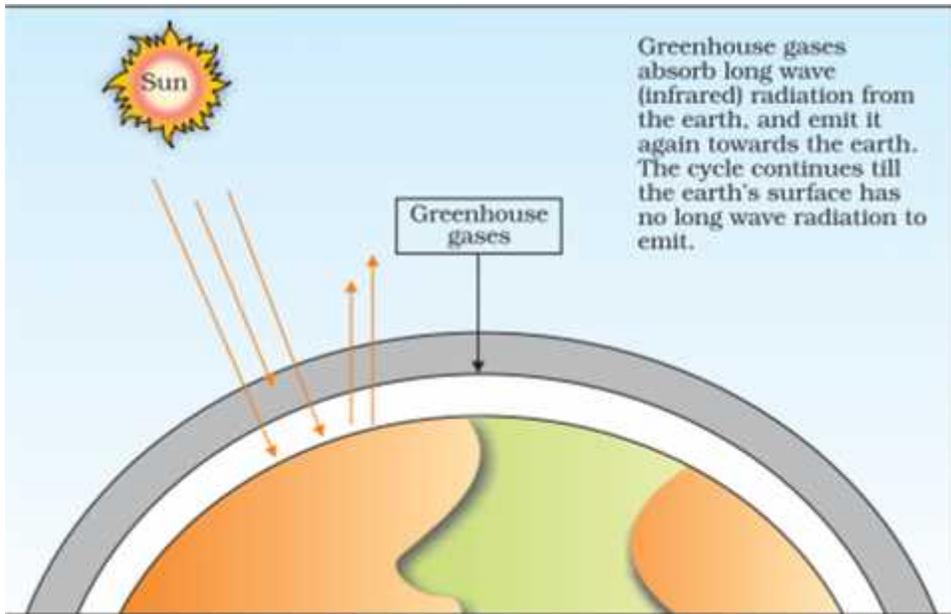
A "pyramid of biomass" shows the relationship between biomass and trophic level by quantifying the biomass present at each trophic level of an energy community at a particular time. It is a graphical representation of biomass present in unit area in different trophic levels. The pyramid of biomass may be "inverted". For example, in a pond ecosystem, the standing crop of phytoplankton, the major producers, at any given point will be lower than the mass of the heterotrophs, such as fish and insects.

A "pyramid of productivity", showing the production or turnover (the rate at which energy or mass is transferred from one trophic level to the next) of biomass at each trophic level. Instead of showing a single snapshot in time, productivity pyramids show the flow of energy through the food chain. There are no inverted pyramids.

- Q5. The increasing amount of carbon dioxide in the air is slowly raising the temperature of the atmosphere, because it absorbs
- a) the water vapour of the air and retains its heat
  - b) Infrared part of solar radiation
  - c) the ultraviolet part of the solar radiation
  - d) all the solar radiations

**Solution: b)**

**Justification**



Q6. Which of the following Ramsar site is manmade?

- a) Deepor Beel
- b) Wular Lake
- c) Bhoj Wetland
- d) Loktak Lake

**Solution: c)**

**Justification**

The Bhoj Wetland consists of two lakes located in the city of Bhopal. The two lakes are the Bhojtal and the Lower Lake. It is a manmade reservoir. Bhoj Wetland was recognized as a wetland of international importance under the Ramsar Convention of 1971 in 2002.

Q7. Consider the following statements about South Asian Nitrogen Hub.

1. The Indian government has announced a research project, South Asian Nitrogen Hub.
2. The project aims to study the impact of different forms of nitrogen pollution, particularly looking at nitrogen in agriculture in eight countries of South Asia.
3. UNEP will partner with different organisations from South Asia.

Which of the above statements is/are correct?

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

**Solution: b)**

**Justification**

The British government has announced a research project, South Asian Nitrogen Hub to study nitrogen pollution in India and South Asia. The project aims to study the impact of different forms of nitrogen pollution, particularly looking at nitrogen in agriculture in eight countries of South Asia. The project led by UK's Centre for Ecology and Hydrology will partner with 50 organisations from the UK and South Asia.

Q8. With reference to food chains in ecosystems, consider the following statements:

1. A food chain illustrates the order in which a chain of organisms feed upon each other.
2. Food chains are found within the population of a species.
3. A food chain illustrates the numbers of each organism which are eaten by others.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 1, 2, 3
- d) None

**Solution: a)**

**Justification**

A food chain describes how energy and nutrients move through an ecosystem. At the basic level there are plants that produce the energy, then it moves up to higher-level organisms like herbivores. After that when carnivores eat the herbivores, energy is transferred from one to the other.

In the food chain, energy is transferred from one living organism through another in the form of food. There are primary producers, primary consumers, secondary consumers and decomposers- all part of the food chain.

Q9. Consider the following statements about Wildlife Protection Society of India.

1. It is an attached office to the Ministry of Environment, Forest and Climate Change (MoEFCC).
2. It protects endangered species and their habitats through awareness, support, and training.
3. Collaborate with state governments to monitor the illegal wildlife trade.

Which of the above statements is/are correct?

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

**Solution: c)**

**Justification**

The WILDLIFE PROTECTION SOCIETY OF INDIA (WPSI) was founded in 1994 by Belinda Wright, its Executive Director, who was an award-winning wildlife photographer and filmmaker till she took up the cause of conservation. From its inception, WPSI's main aim has been to bring a new focus to the daunting task of tackling India's growing wildlife crisis.

WPSI is one of the most respected and effective wildlife conservation organisations in India. It is a registered non-profit organisation, funded by a wide range of Indian and international donors.

WPSI aims to bring new focus and energy to tackle the growing wildlife crisis in India. Its goal is to protect endangered species and their habitats through awareness, support, and training. We are committed to creating an enduring paradigm to conserve India's wildlife by working with local communities and government agencies to curb poaching and the illegal wildlife trade across the country.

Q10. Consider the following statements about "ECOMARK" scheme.

1. It is a Scheme on Labelling of Environment Friendly Products.
2. Provide an incentive for manufacturers and importers to reduce adverse environmental impact of products.
3. Reward initiatives by companies to reduce adverse environmental impact of their products.

Which of the above statements is/are correct?

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

**Solution: d)**

**Justification**

The Government have decided to institute a Scheme on Labelling of Environment Friendly Products. The scheme will operate on a national basis and provide accreditation and labelling for household and other consumer products which meet certain environmental criteria along with quality requirements of the Indian Standards for that product. The Label shall be known as the "ECOMARK" and will be of the design to be notified.

Any product which is made, used or disposed of in a way that significantly reduces the harm it would otherwise cause the environment could be considered as Environment Friendly Product.

The objectives of the scheme are as follows:-

- (i) To provide an incentive for manufacturers and importers to reduce adverse environmental impact of products.
- (ii) To reward genuine initiatives by companies to reduce adverse environmental impact of their products.
- (iii) To assist consumers to become environmentally responsible in their daily lives by providing information to take account of environmental factors in their purchase decisions.
- (iv) To encourage citizens to purchase products which have less harmful environmental impacts.
- (v) Ultimately to improve the quality of the environment and to encourage the sustainable management of resources.

Q11. The composting process is dependent on which of the following micro-organisms?

- 1. Bacteria
- 2. Fungi
- 3. Virus
- 4. Actinobacteria

Select the correct code:

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

**Solution: c)**

**Justification**

With the proper mixture of water, oxygen, carbon, and nitrogen, micro-organisms are able to break down organic matter to produce compost. The composting process is dependent on micro-organisms to break down organic matter into compost. There are many types of microorganisms found in active compost of which the most common are:

- Bacteria- The most numerous of all the microorganisms found in compost. Depending on the phase of composting, mesophilic or thermophilic bacteria may predominate.
- Actinobacteria- Necessary for breaking down paper products such as newspaper, bark, etc.
- Fungi- molds and yeast help break down materials that bacteria cannot, especially lignin in woody material.
- Protozoa- Help consume bacteria, fungi and micro organic particulates.
- Rotifers- Rotifers help control populations of bacteria and small protozoans.

In addition, earthworms not only ingest partly composted material, but also continually re-create aeration and drainage tunnels as they move through the compost.

Q12. The Global Environment Facility (GEF) serves as a financial mechanism for which of the following conventions?

1. Convention on Biological Diversity (CBD)
2. Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES)
3. UN Convention to Combat Desertification (UNCCD)
4. Montreal Protocol on Substances that Deplete the Ozone Layer

Select the correct code:

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

**Solution: b)**

**Justification**

The GEF provides funding to assist developing countries in meeting the objectives of international environmental conventions. The GEF serves as "financial mechanism" to five conventions, which are Convention on Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC), Stockholm Convention on Persistent Organic Pollutants (POPs), UN Convention to Combat Desertification (UNCCD), and Minamata Convention on Mercury.

Q13. Consider the following statements.

1. Bioleaching is used essentially for the recovery of copper, uranium and gold.
2. Bioaugmentation can be involved in bioremediation.
3. Biosparging can be used to reduce concentrations of petroleum constituents that are dissolved in groundwater.

Which of the above statements is/are incorrect?

- a) 1 only
- b) 2 only
- c) 3 only
- d) None

**Solution: d)**

**Justification**

Bioleaching is a simple and effective technology for metal extraction from low-grade ores and mineral concentrates. At present bioleaching is used essentially for the recovery of copper, uranium and gold, and the main techniques employed are heap, dump and in situ leaching. Bioleaching has also some potential for metal recovery and detoxification of industrial waste products, sewage sludge and soil contaminated with heavy metals.

Biosparging is an in-situ remediation technology that uses indigenous microorganisms to biodegrade organic constituents in the saturated zone. In biosparging, air (or oxygen) and nutrients (if needed) are injected into the saturated zone to increase the biological activity of the indigenous microorganisms. Biosparging can be used to reduce concentrations of petroleum constituents that are dissolved in groundwater, adsorbed to soil below the water table, and within the capillary fringe. Although constituents adsorbed to soils in the unsaturated zone can also be treated by biosparging, bioventing is typically more effective for this situation.

Bioremediation strategies can involve natural attenuation, bioaugmentation, or biostimulation and can take place in situ or ex situ.

Q14. Consider the following statements about Mammals of India (MaOI) initiative.

1. It is an online, peer-reviewed, freely-accessible portal exclusively for mammals.
2. It is the initiative of *Ministry of Environment & Forests (MoEF)*.
3. It provides a facility to the citizen to upload photographic observations about mammals.

Which of the above statements is/are correct?

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

**Solution: c)**

**Justification**

Scientists and researchers from the National Centre for Biological Sciences (NCBS) in Bangalore have come up with a new citizen-science repository on Indian mammals, called Mammals of

India (MaOI), which is an online, peer- reviewed, freely-accessible portal that was launched late September 2018.

“So far, there was no portal exclusively for mammals. These photographic records will help us in having distribution map of mammals in the country.

The website, [www.mammalsofindia.org](http://www.mammalsofindia.org), aims to develop individual species pages for all Indian mammals with information on identification, variation, distribution, breeding and non-breeding ecology and species conservation.

Q15. Consider the following statements.

1. It is recognized as an Important Bird Area by BirdLife International.
2. It was declared as a World Heritage Site by UNESCO.
3. The forest region is home to world's largest population of Indian Rhinoceros.
4. It is also a Tiger Reserve.

The above statements are related to which National Park?

- a) Manas National Park
- b) Nameri National Park
- c) Orang National Park
- d) Kaziranga National Park

**Solution: d)**

**Justification**

Along with the iconic Greater one-horned rhinoceros, the park is the breeding ground of elephants, wild water buffalo, and swamp deer. Over the time, the tiger population has also increased in Kaziranga, and that's the reason why Kaziranga was declared as Tiger Reserve in 2006. Also, the park is recognized as an Important Bird Area by BirdLife International for the conservation of avifaunal species.

The forest region of Kaziranga Park is home to world's largest population of Indian Rhinoceros. In the year 1985, the park was declared as a World Heritage Site by UNESCO.