1. If the interest rate is decreased in an economy, it will
   (a) decrease the consumption expenditure in the economy
   (b) increase the tax collection of the Government
   (c) increase the investment expenditure in the economy
   (d) increase the total savings in the economy

2. Consider the following statements:
   1. The President shall make rules for the more convenient transaction of the business of the Government of India, and for the allocation among Ministers of the said business.
   2. All executive actions of the Government of India shall be expressed to be taken in the name of the Prime Minister.

Which of the statements given above is/are correct?
   (a) 1 only
   (b) 2 only
   (c) Both 1 and 2
   (d) Neither 1 nor 2

3. Consider the following statements regarding a No-Confidence Motion in India:
   1. There is no mention of a No-Confidence Motion in the Constitution of India.
   2. A Motion of No-Confidence can be introduced in the Lok Sabha only.

Which of the statements given above is/are correct?
   (a) 1 only
   (b) 2 only
   (c) Both 1 and 2
   (d) Neither 1 nor 2

4. With reference to Neem tree, consider the following statements:
   1. Neem oil can be used as a pesticide to control the proliferation of some species of insects and mites.
   2. Neem seeds are used in the manufacture of biofuels and hospital detergents.
   3. Neem oil has applications in pharmaceutical industry.

Which of the statements given above is/are correct?
   (a) 1 and 2 only
   (b) 3 only
   (c) 1 and 3 only
   (d) 1, 2 and 3

5. Which one of the following is the process involved in photosynthesis?
   (a) Potential energy is released to form free energy
   (b) Free energy is converted into potential energy and stored
   (c) Food is oxidized to release carbon dioxide and water
   (d) Oxygen is taken, and carbon dioxide and water vapour are given out

6. In addition to fingerprint scanning, which of the following can be used in the biometric identification of a person?
   1. Iris scanning
   2. Retinal scanning
   3. Voice recognition

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

7. Which of the following statements is/are correct regarding vegetative propagation of plants?
   1. Vegetative propagation produces clonal population.
   2. Vegetative propagation helps in eliminating the virus.
   3. Vegetative propagation can be practiced most of the year.

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

8. Which of the following pairs is/are correctly matched?
<table>
<thead>
<tr>
<th>Spacecraft</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cassini-Huygens</td>
<td>Orbiting the Venus and transmitting data to the Earth</td>
</tr>
</tbody>
</table>
2. Messenger : Mapping and investigating the Mercury
3. Voyager 1 and 2 : Exploring the outer solar system

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

9. Consider the following pairs : 
Region  
Well-known for the production of
1. Kinnaur : Areca nut
2. Mewat : Mango
3. Coromandel : Soya bean

Which of the above pairs is/ are correctly matched?
(a) 1 and 2 only  (b) 3 only
(c) 1, 2 and 3  (d) None

10. Which of the following is/are the example/ examples of chemical change?
1. Crystallization of sodium chloride?
2. Melting of ice
3. Souring of milk

Select the correct answer using the code given below.
(a) 1 and 2 only  (b) 3 only
(c) 1, 2 and 3  (d) None

11. The power of the Supreme Court of India to decide disputes between the Centre and the States falls under its
(a) advisory jurisdiction  (b) appellate jurisdiction
(c) original jurisdiction  (d) writ jurisdiction

12. Consider the following techniques phenomena :
1. Budding and grafting in fruit plants
2. Cytoplasmic male sterility
3. Gene silencing

Which of the above is/are used to create transgenic crops?
(a) 1 only  (b) 1 and 2
(c) 1 and 3  (d) None

13. Consider the following statements :
1. Maize can be used for the production of starch.
2. Oil extracted from maize can be a feedstock for biodiesel.
3. Alcoholic beverages can be produced by using maize.

Which of the statements given above is/are correct?
(a) 1 only  (b) 1 and 2 only
(c) 2 and 3 only  (d) 1, 2 and 3

14. Among the following organisms, which one does not belong to the class of other three?
(a) Crab  (b) Mite
(c) Scorpion  (d) Spider

15. The power to increase the number of judges in the Supreme Court of India is vested in
(a) the President of India  (b) the Parliament
(c) the Chief Justice of India  (d) the Law Commission

16. Consider the following towns of India:
1. Bhadrachalam  2. Chanderi

Which of the above are famous for the production of traditional sarees/ fabric?
(a) 1 and 2 only  (b) 2 and 3 only
(c) 1, 2 and 3  (d) 1, 3 and 4.

17. Consider the following pairs : 
National Highway  Cities connected
1. NH4  Chennai and Hyderabad
2. NH6  Mumbai and Kolkata
3. NH15  Ahmedabad and Jodhpur

Which of the above pairs is/ are correctly matched?
(a) 1 and 2 only  (b) 3 only
(c) 1, 2 and 3  (d) None

18. Consider the following international agreements : 
1. The International Treaty on Plant Genetic Resources for Food and Agriculture
2. The United Nations Convention to Combat Desertification
3. The World Heritage Convention

Which of the above has/have a bearing on the biodiversity?
(a) 1 and 2 only  (b) 3 only
(c) 1 and 3 only  (d) 1, 2 and 3

19. Consider the following statements regarding 'Earth Hour' : 
1. It is an initiative of UNEP and UNESCO.
2. It is a movement in which the participants switch off the lights for one hour on a certain day every year.
3. It is a movement to raise the awareness about the climate change and the need to save the planet.

Which of the statements given above is/are correct?
(a) 1 and 3 only  (b) 2 only
(c) 2 and 3 only  (d) 1, 2 and 3

20. Which one of the following is the correct sequence of a food chain?
(a) Diatoms-Crustaceans-Herrings
(b) Crustaceans-Diatoms-Herrings
(c) Diatoms-Herrings-Crustaceans
(d) Crustaceans-Herrings-Diatoms

21. What are the significances of a practical approach to sugarcane production known as ‘Sustainable Sugarcane Initiative’?
1. Seed cost is very low in this compared to the conventional method of cultivation.
2. Drip irrigation can be practiced very effectively in this.
3. There is no application of chemical/inorganic fertilizers at all in this.

Select the correct answer using the code given below.
(a) 1 only  (b) 1 and 2
(c) 2, 3 and 4  (d) 1, 2, 3 and 4

22. If a wetland of international importance is brought under the ‘Montreux Record’, what does it imply?
(a) Changes in ecological character have occurred, are occurring or are likely to occur in the wetland as a result of human interference
(b) The country in which the wetland is located should enact a law to prohibit any human activity within five kilometres from the edge of the wetland
(c) The survival of the wetland depends on the cultural practices and traditions of certain communities living in its vicinity and therefore the cultural diversity therein should not be destroyed
(d) It is given the status of ‘World Heritage Site’

23. Which one of the following pairs of islands is separated from each other by the ‘Ten Degree Channel’?
(a) Andaman and Nicobar
(b) Nicobar and Sumatra
(c) Maldives and Lakshadweep
(d) Sumatra and Java

24. Consider the following pairs:

Programme/Project | Ministry
--- | ---
1. Drought-Prone Area | Ministry of Agriculture Programme
2. Desert Development | Ministry of Environment Programme and Forests
3. National Watershed Development Project for Rainfed Areas | Ministry of Rural Development

Which of the above pairs is/ are correctly matched?
(a) 1 and 2 only  (b) 3 only
(c) 1, 2 and 3  (d) None

25. With reference to Bombay Natural History Society (BNHS), consider the following statements:
1. It is an autonomous organization under the Ministry of Environment and Forests.
2. It strives to conserve nature through action-based research, education, and public awareness.
3. It organizes and conducts nature trails and camps for the general public.

Which of the statements given above is/are correct?
(a) 1 only  (b) 2 only
(c) 2 and 3  (d) None

26. With reference to ‘Global Environment Facility’, which of the following statements is/are correct?
(a) It serves as financial mechanism for ‘Convention on Biological Diversity’ and ‘United Nations Framework Convention on Climate Change’
(b) It undertakes scientific research on environmental issues at global level
(c) It is an agency under OECD to facilitate the transfer of technology and funds to underdeveloped countries with specific aim to protect their environment
(d) Both (a) and (b)

27. With reference to technologies for solar power production, consider the following statements:
1. ‘Photovoltaics’ is a technology that generates electricity by direct conversion of light into electricity, while ‘Solar Thermal’ is a technology that utilizes the Sun’s rays to generate heat which is further used in electricity generation process.
2. Photovoltaics generates Alternating Current (AC), while Solar Thermal generates Direct Current (DC).
3. India has manufacturing base for Solar Thermal technology, but not for Photovoltaics.

Which of the statements given above is/are correct?
(a) 1 only  (b) 2 and 3 only
(c) 1, 2 and 3  (d) None

28. Consider the following languages:
1. Gujarati
2. Kannada
3. Telugu

Which of the above has/have been declared as ‘Classical Language/Languages’ by the Government?
(a) 1 and 2 only  (b) 3 only
(c) 2 and 3 only  (d) 1, 2 and 3

29. Consider the following pairs:
1. Dampa Tiger : Mizoram Reserve
2. Gumti Wildlife : Sikkim Sanctuary
3. Saramati Peak : Nagaland

Which of the above pairs is/are correctly matched?
(a) 1 only  (b) 2 and 3 only
(c) 1 and 3 only  (d) 1, 2 and 3

30. With reference to a conservation organization called ‘Wetlands International’, which of the following statements is/are correct?
1. It is an intergovernmental organization formed by the countries which are signatories to Ramsar Convention.
2. It works at the field level to develop and mobilize knowledge, and use the practical experience to advocate for better policies.

Select the correct answer using the code given below.
(a) 1 only  (b) 2 only
(c) Both 1 and 2  (d) Neither 1 nor 2

31. With reference to a grouping of countries known as BRICS, consider the following statements:
1. The First Summit of BRICS was held in Rio de Janeiro in 2009.
2. South Africa was the last to join the BRICS grouping.

Which of the statements given above is/are correct?
(a) 1 only  (b) 2 only
(c) Both 1 and 2  (d) Neither 1 nor 2

32. Consider the following diseases:
1. Diphtheria
2. Chickenpox
3. Smallpox

Which of the above diseases has/have been eradicated in India?
(a) 1 and 2 only  (b) 3 only
(c) 1, 2 and 3  (d) None

33. Which of the following phenomena might have influenced the evolution of organisms?
1. Continental drift
2. Glacial cycles

Select the correct answer using the code given below.
(a) 1 only  (b) 2 only
(c) Both 1 and 2  (d) Neither 1 nor 2
34. Other than poaching, what are the possible reasons for the decline in the population of Ganges River Dolphins?
1. Construction of dams and barrages on rivers
2. Increase in the population of crocodiles in rivers
3. Getting trapped in fishing nets accidentally
4. Use of synthetic fertilizers and other agricultural chemicals in crop-fields in the vicinity of rivers
Select the correct answer using the code given below.
(a) 1 and 2 only (b) 2 and 3 only (c) 1, 3 and 4 only (d) 1, 2, 3 and 4

35. The Radcliffe Committee was appointed to
(a) solve the problem of minorities in India
(b) give effect to the Independence Bill
(c) delimit the boundaries between India and Pakistan
(d) enquire into the riots in East Bengal

36. Brominated flame retardants are used in many household products like mattresses and upholstery. Why is there some concern about their use?
1. They are highly resistant to degradation in the environment.
2. They are able to accumulate in humans and animals.
Select the correct answer using the code given below.
(a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2

37. Consider the following:
1. Bats
2. Bears
3. Rodents
The phenomenon of hibernation can be observed in which of the above kinds of animals?
(a) 1 and 2 only
(b) 2 only
(c) 1, 2 and 3
(d) Hibernation cannot be observed in any of the above

38. Which one of the following is the largest Committee of the Parliament?
(a) The Committee on Public Accounts
(b) The Committee on Estimates
(c) The Committee on Public Undertakings
(d) The Committee on Petitions

39. Which of the following adds/add carbon dioxide to the carbon cycle on the planet Earth?
1. Volcanic action
2. Respiration
3. Photosynthesis
4. Decay of organic matter
Select the correct answer using the code given below.
(a) 1 and 3 only (b) 2 only (c) 1, 2 and 4 only (d) 1, 2, 3 and 4

40. If you walk through countryside, you are likely to see some birds stalking alongside the cattle to seize the insects disturbed by their movement through grasses. Which of the following is/are such bird/birds?
1. Painted Stork
2. Common Myna
3. Black-necked Crane

41. The Partition of Bengal made by Lord Curzon in 1905 lasted until
(a) the First World War when Indian troops were needed by the British and the partition was ended
(b) King George V abrogated Curzon’s Act at the Royal Durbar in Delhi in 1911
(c) Gandhiji launched his Civil Disobedience Movement
(d) the Partition of India in 1947 when East Bengal became East Pakistan

42. The 1929 Session of Indian National Congress is of significance in the history of the Freedom Movement because
(a) attainment of Self-Government was declared as the objective of the Congress
(b) attainment of Poorna Swaraj was adopted as the goal of the Congress
(c) Non-Cooperation Movement was launched
(d) decision to participate in the Round Table Conference in London was taken

43. With reference to the famous Sattriya dance, consider the following statements:
1. Sattriya is a combination of music, dance and drama.
2. It is a centuries-old living tradition of Vaishnavites of Assam.
3. It is based on classical Ragas and Talas of devotional songs composed by Tulsidas, Kabir and Mirabai.
Which of the statements given above is/are correct?
(a) 1 only (b) 1 and 2 only (c) 2 and 3 only (d) 1, 2 and 3

44. Chaitra 1 of the national calendar based on the Saka Era corresponds to which one of the following dates of the Gregorian calendar in a normal year of 365 days?
(a) 22nd March (or 21st March)
(b) 15th May (or 16th May)
(c) 31st March (or 30th March)
(d) 21st April (or 20th April)

45. With reference to the Indian history of art and culture, consider the following pairs:
Famous work of Sculpture Site
1. A grand image of Buddha’s Mahaparinirvana with numerous celestial musicians above and the sorrowful figures of his followers below
2. A huge image of Varaha Avatar (boar incarnation) of Vishnu, as he rescues Goddess Earth from the deep and chaotic waters, sculpted on rock
3. “Arjuna’s Penance”/ “Descent of Ganga” sculpted on the surface of huge boulders

Select the correct answer using the code given below.
Which of the pairs given above is/are correctly matched?
(a) 1 and 2 only (b) 3 only
(c) 1 and 3 only (d) 1, 2 and 3

46. The Ghadr (Ghadar) was a
(a) revolutionary association of Indians with headquarters at San Francisco
(b) nationalist organization operating from Singapore
(c) militant organization with headquarters at Berlin
(d) communist movement for India’s freedom with headquarters at Tashkent

47. With reference to India’s culture and tradition, what is ‘Kalaripayattu’?
(a) It is an ancient Bhakti cult of Shaivism still prevalent in some parts of South India
(b) It is an ancient style bronze and brasswork still found in southern part of Coromandel area
(c) It is an ancient form of dance-drama and a living tradition in the northern part of Malabar
(d) It is an ancient martial art and a living tradition in some parts of South India

48. Consider the following pairs :
1. Garba Gujarat
2. Mohiniattam Odisha
3. Yakshagana Karnataka
Which of the pairs given above is/are correctly matched?
(a) 1 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3 only

49. With reference to Buddhist history, tradition and culture in India, consider the following pairs :

<table>
<thead>
<tr>
<th>Famous shrine</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tabo monastery and temple complex</td>
<td>Spiti Valley</td>
</tr>
<tr>
<td>2. Lhotsava Lhakhang temple, Nako</td>
<td>Zanskar Valley</td>
</tr>
<tr>
<td>3. Alchi temple complex</td>
<td>Ladakh</td>
</tr>
</tbody>
</table>

Which of the pairs given above is/are correctly matched?
(a) 1 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3 only

50. Consider the following statements :
1. ‘Bijak’ is a composition of the teachings of Saint Dadu Dayal.
2. The Philosophy of Pushti Marg was propounded by Madhvacharya.
Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

51. A community of people called Manganiyars is well-known for their
(a) martial arts in North-East India
(b) musical tradition in North-West India
(c) classical vocal music in South India
(d) pietra dura tradition in Central India

52. What was/were the object/objects of Queen Victoria’s Proclamation (1858)?
1. To disclaim any intention to annex Indian States
2. To place the Indian administration under the British Crown
3. To regulate East India Company’s trade with India

Select the correct answer using the code given below.
(a) 1 and 2 only (b) 2 only
(c) 1 and 3 only (d) 1, 2 and 3

53. Ibadat Khana at Fatehpur Sikri was
(a) the mosque for the use of Royal Family
(b) Akbar’s private prayer chamber
(c) the hall in which Akbar held discussions with scholars of various religions
(d) the room in which the nobles belonging to different religions gathered to discuss religious affairs

54. In the context of food and nutritional security of India, enhancing the ‘Seed Replacement Rates’ of various crops helps in achieving the food production targets of the future. But what is/are the constraint/constraints in its wider/greater implementation?
1. There is no National Seeds Policy in place.
2. There is no participation of private sector seed companies in the supply of quality seeds of vegetables and planting materials of horticultural crops.
3. There is a demand-supply gap regarding quality seeds in case of low value and high volume crops.

Select the correct answer using the code given below.
(a) 1 and 2 (b) 3 only
(c) 2 and 3 (d) None

55. With reference to ‘Eco-Sensitive Zones’, which of the following statements is/are correct?
1. Eco-Sensitive Zones are the areas that are declared under the Wildlife (Protection) Act, 1972.
2. The purpose of the declaration of Eco-Sensitive Zones is to prohibit all kinds of human activities in those zones except agriculture.

Select the correct answer using the code given below.
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

56. Consider the following statements :
1. Animal Welfare Board of India is established under the Environment (Protection) Act, 1986.
2. National Tiger Conservation Authority is a statutory body.
3. National Ganga River Basin Authority is chaired by the Prime Minister.

Which of the statements given above is/are correct?
(a) 1 only (b) 2 and 3 only
(c) 2 only (d) 1, 2 and 3

57. Consider the following pairs :

<table>
<thead>
<tr>
<th>Vitamin</th>
<th>Deficiency disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Vitamin C</td>
<td>Scurvy</td>
</tr>
<tr>
<td>2. Vitamin D</td>
<td>Rickets</td>
</tr>
<tr>
<td>3. Vitamin E</td>
<td>Night blindness</td>
</tr>
</tbody>
</table>

Which of the pairs given above is/are correctly matched?
(a) 1 and 2 only (b) 3 only
(c) 1, 2 and 3 (d) None

58. There is some concern regarding the nanoparticles of some chemical elements that are used by the industry in the manufacture of various products. Why?
1. They can accumulate in the environment, and contaminate water and soil.
2. They can enter the food chains.
3. They can trigger the production of free radicals.

Select the correct answer using the code given below.
(a) 1 and 2 only  (b) 3 only
(c) 1 and 3 only  (d) 1, 2 and 3

59. Which of the following organizations brings out the publication known as ‘World Economic Outlook’?
(a) The International Monetary Fund
(b) The United Nations Development Programme
(c) The World Economic Forum
(d) The World Bank

60. With reference to Union Budget, which of the following is/are covered under Non-Plan Expenditure?
1. Defence expenditure
2. Interest payments
3. Salaries and pensions
4. Subsidies

Select the correct answer using the code given below.
(a) 1 only  (b) 2 and 3 only
(c) 1, 2, 3 and 4  (d) None

61. Which of the following have coral reefs?
1. Andaman and Nicobar Islands
2. Gulf of Kachchh
3. Gulf of Mannar
4. Sunderbans

Select the correct answer using the code given below.
(a) 1, 2 and 3 only  (b) 2 and 4 only
(c) 1 and 3 only  (d) 1, 2, 3 and 4

62. In India, the problem of soil erosion is associated with which of the following?
1. Terrace cultivation
2. Deforestation
3. Tropical climate

Select the correct answer using the code given below.
(a) 1 and 2 only  (b) 2 only
(c) 1 and 3 only  (d) 1, 2 and 3

63. The seasonal reversal of winds is the typical characteristic of
1. Equatorial climate  (b) Mediterranean climate
2. Monsoon climate  (d) All of the above climates

64. With reference to the cultural history of India, the term ‘Panchayatan’ refers to
(a) an assembly of village elders  (b) a religious sect
(c) a style of temple construction  (d) an administrative functionary

65. Consider the following rivers:
1. Barak
2. Lohit
3. Subansiri
Which of the above flows/flow through Arunachal Pradesh?
(a) 1 only  (b) 2 and 3 only
(c) 1 and 3 only  (d) 1, 2 and 3

66. Consider the following pairs:
(b) 3 only
(c) 1 and 3 only  (d) 1, 2 and 3

67. Which of the following pairs does not form part of the six systems of Indian Philosophy?
(a) Mimamsa and Vedanta  (b) Nyaya and Vaisheshika
(c) Lokayata and Kapalika  (d) Sankhya and Yoga

68. Consider the following pairs:
1. Harike Wetlands : Confluence of Beas and Sutlej
2. Keoladeo Ghana : Confluence of National Park and Banas and Chambal
3. Kolleru Lake : Confluence of Musi and Krishna

Which of the above pairs is/are correctly matched?
(a) 1 only  (b) 2 and 3 only
(c) 1 and 3 only  (d) 1, 2 and 3

69. Consider the following pairs:
1. Harike Wetlands : Confluence of Beas and Sutlej
2. Keoladeo Ghana : Confluence of National Park and Banas and Chambal
3. Kolleru Lake : Confluence of Musi and Krishna
Which of the above pairs are correctly matched?
(a) 1 only  (b) 2 and 3 only
(c) 1 and 3 only  (d) 1, 2 and 3

70. The most important strategy for the conservation of biodiversity together with traditional human life is the establishment of
(a) biosphere reserves  (b) botanical gardens
(c) national parks  (d) wildlife sanctuaries

71. Turkey is located between
(a) Black Sea and Caspian Sea  (b) Black Sea and Mediterranean Sea
(c) Gulf of Suez and Mediterranean Sea  (d) Gulf of Aqaba and Dead Sea

72. What is the correct sequence of occurrence of the following cities in South-East Asia as one proceeds from south to north?
1. Bangkok
2. Hanoi
3. Jakarta
4. Singapore
Select the correct answer using the code given below.
(a) 4-2-1-3  (b) 3-2-4-1
(c) 3-4-1-2  (d) 4-3-2-1

73. The scientific view is that the increase in global temperature should not exceed 2 °C above pre-industrial level. If the global temperature increases beyond 3 °C above the pre-industrial level, what can be its possible impact/impacts on the world?
1. Terrestrial biosphere tends toward a net carbon source.
2. Widespread coral mortality will occur.
3. All the global wetlands will permanently disappear.
4. Cultivation of cereals will not be possible anywhere in the world.
Select the correct answer using the code given below.
(a) 1 only  (b) 1 and 2 only
(c) 2, 3 and 4 only  (d) 1, 2, 3 and 4
74. The national motto of India, ‘Satyameva Jayate’ inscribed below the Emblem of India is taken from
   (a) Katha Upanishad
   (b) Chandogya Upanishad
   (c) Aitareya Upanishad
   (d) Mundaka Upanishad

75. In the Constitution of India, promotion of international peace and security is included in the
   (a) Preamble to the Constitution
   (b) Directive Principles of State Policy
   (c) Fundamental Duties
   (d) Ninth Schedule

76. What are the benefits of implementing the ‘Integrated Watershed Development Programme’?
   1. Prevention of soil runoff
   2. Linking the country’s perennial rivers with seasonal rivers
   3. Rainwater harvesting and recharge of groundwater table
   4. Regeneration of natural vegetation
   Select the correct answer using the code given below.
   (a) 1 and 2 only
   (b) 2, 3 and 4 only
   (c) 1, 3 and 4 only
   (d) 1, 2, 3 and 4

77. Which of the following are associated with ‘Planning’ in India?
   1. The Finance Commission
   2. The National Development Council
   3. The Union Ministry of Rural Development
   4. The Union Ministry of Urban Development
   5. The Parliament
   Select the correct answer using the code given below.
   (a) 1, 2 and 5 only
   (b) 1, 3 and 4 only
   (c) 2 and 5 only
   (d) 1, 2, 3, 4 and 5

78. Which of the following is/are the function/functions of the Cabinet Secretariat?
   1. Preparation of agenda for Cabinet Meetings
   2. Secretarial assistance to Cabinet Committees
   3. Allocation of financial resources to the Ministries
   Select the correct answer using the code given below.
   (a) 1 only
   (b) 2 and 3 only
   (c) 1 and 2 only
   (d) 1, 2, 3, 4 and 5

79. Consider the following statements:
   A Constitutional Government is one which
   1. places effective restrictions on individual liberty in the interest of State Authority
   2. places effective restrictions on the Authority of the State in the interest of individual liberty
   Which of the statements given above is/are correct?
   (a) 1 only
   (b) 2 only
   (c) Both 1 and 2
   (d) Neither 1 nor 2

80. Which of the following are the discretionary powers given to the Governor of a State?
   1. Sending a report to the President of India for imposing the President’s rule
   2. Appointing the Ministers
   3. Reserving certain bills passed by the State Legislature for consideration of the President of India
   4. Making the rules to conduct the business of the State Government
   Select the correct answer using the code given below.
   (a) 1 and 2 only
   (b) 1 and 3 only
   (c) 2, 3 and 4 only
   (d) 1, 2, 3 and 4

81. In medieval India, the designations ‘Mahattara’ and ‘Pattakila’ were used for
   (a) military officers
   (b) village headmen
   (c) specialists in Vedic rituals
   (d) chiefs of craft guilds

82. Lichens, which are capable of initiating ecological succession even on a bare rock, are actually a symbiotic association of
   (a) algae and bacteria
   (b) algae and fungi
   (c) bacteria and fungi
   (d) fungi and mosses

83. If you travel through the Himalayas, you are likely to see which of the following plants naturally growing there?
   1. Oak
   2. Rhododendron
   3. Sandalwood
   Select the correct answer using the code given below.
   (a) 1 and 2 only
   (b) 3 only
   (c) 1 and 3 only
   (d) 1, 2 and 3

84. Which of the following are some important pollutants released by steel industry in India?
   1. Oxides of sulphur
   2. Oxides of nitrogen
   3. Carbon monoxide
   4. Carbon dioxide
   Select the correct answer using the code given below.
   (a) 1, 3 and 4 only
   (b) 1 and 3 only
   (c) 1 and 4 only
   (d) 1, 2, 3 and 4

85. Which of the following Kingdoms were associated with the life of the Buddha?
   1. Avanti
   2. Gandhara
   3. Kosala
   4. Magadha
   Select the correct answer using the code given below.
   (a) 1, 2 and 3
   (b) 2 and 4
   (c) 3 and 4 only
   (d) 1, 3 and 4

86. Every year, a monthlong ecologically important campaign/festival is held during which certain communities/tribes plant saplings of fruit-bearing trees. Which of the following are such communities/tribes?
   (a) Bhutia and Lepcha
   (b) Gond and Korku
   (c) Irula and Toda
   (d) Sahariya and Agariya

87. The sales tax you pay while purchasing a toothpaste is a
   (a) tax imposed by the Central Government
   (b) tax imposed by the Central Government but collected by the State Government
   (c) tax imposed by the State Government but collected by the Central Government
   (d) tax imposed and collected by the State Government

88. What does venture capital mean?
   (a) A short-term capital provided to industries
   (b) A long-term start-up capital provided to new entrepreneurs
   (c) Funds provided to industries at times of incurring losses
   (d) Funds provided for replacement and renovation of industries

89. The main objective of the 12th Five-Year Plan is
   (a) inclusive growth and poverty reduction
   (b) inclusive and sustainable growth
   (c) sustainable and inclusive growth to reduce unemployment
   (d) faster, sustainable and more inclusive growth
90. With reference to Balance of Payments, which of the following constitutes/constitute the Current Account?
1. Balance of trade
2. Foreign assets
3. Balance of invisibles
4. Special Drawing Rights
Select the correct answer using the code given below.
(a) 1 only (b) 2 and 3
(c) 1 and 3 (d) 1, 2 and 4

91. The terms ‘Marginal Standing Facility Rate’ and ‘Net Demand and Time Liabilities’, sometimes appearing in news, are used in relation to
(a) banking operations
(b) communication networking
(c) military strategies
(d) supply and demand of agricultural products

92. What is/are the facility/facilities the beneficiaries can get from the services of Business Correspondent (Bank Saathi) in branchless areas?
1. It enables the beneficiaries to draw their subsidies and social security benefits in their villages.
2. It enables the beneficiaries in the rural areas to make deposits and withdrawals.
Select the correct answer using the code given below.
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

93. In the context of Indian economy, which of the following is/are the purpose/purposes of ‘Statutory Reserve Requirements’?
1. To enable the Central Bank to control the amount of advances the banks can create
2. To make the people’s deposits with banks safe and liquid
3. To prevent the commercial banks from making excessive profits
4. To force the banks to have sufficient vault cash to meet their day-to-day requirements
Select the correct answer using the code given below.
(a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1, 2, 3 and 4

94. Recently, a series of uprisings of people referred to as ‘Arab Spring’ originally started from
(a) Egypt (b) Lebanon
(c) Syria (d) Tunisia

95. Consider the following pairs:
Region often in news  Country
1. Chechnya : Russian Federation
2. Darfur : Mali
3. Swat Valley : Iraq
Which of the above pairs is/are correctly matched?
(a) 1 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3

96. With reference to Agni-IV Missile, which of the following statements is/are correct?
1. It is a surface-to-surface missile.
2. It is fuelled by liquid propellant only
3. It can deliver one-tonne nuclear warheads about 7500 km away
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

97. With reference to two non-conventional energy sources called ‘coalbed methane’ and ‘shale gas’, consider the following statements:
1. Coalbed methane is the pure methane gas extracted from coal seams, while shale gas is a mixture of propane and butane only that can be extracted from fine-grained sedimentary rocks.
2. In India, abundant coalbed methane sources exist, but so far no shale gas sources have been found.
Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

98. With reference to the ‘Changpa’ community of India, consider the following statements:
1. They live mainly in the State of Uttarakhand.
2. They rear the Pashmina goats that yield a fine wool.
3. They are kept in the category of Scheduled Tribes.
Which of the statements given above is/are correct?
(a) 1 only (b) 2 and 3 only
(c) Both 1 and 2 (d) Neither 1 nor 2

99. In India, cluster bean (Guar) is traditionally used as a vegetable or animal feed, but recently the cultivation of this has assumed significance. Which one of the following statements is correct in this context?
(a) The oil extracted from seeds is used in the manufacture of biodegradable plastics
(b) The gum made from its seeds is used in the extraction of shale gas
(c) The leaf extract of this plant has the properties of antihistamines
(d) It is a source of high quality biodiesel
1. (c) When interest rates decreases then investment expenditure by businesses on capital goods like factories and equipment increase in an economy.

2. (a) Clause (3) of Article 77 “Conduct of Business of the Government of India” of the Constitution of India lays down as follows: “The President shall make rules for the more convenient transaction of the business of the Government of India, and for the allocation among Ministers of the said business. The Constitution of India mentions that All executive action of the Government of India shall be expressed to be taken in the name of the President. Therefore, only option (a) is correct.

3. (c) Article 75 says that the Council of Ministers shall be collectively responsible to Loksabha. In other words, Lok Sabha can remove them by passing a no-confidence motion. But the word “no confidence motion” itself is not given in Constitution itself, it comes from Rule 198 of Lok Sabha Rules. Rajya Sabha cannot pass or remove council of ministers by passing no-confidence motion. No confidence motion can be introduced, only in Lok Sabha.

4. (d) All 1.2 and 3 are true.

5. (b) In photosynthesis food is oxidized to form energy, oxygen and water. Thus the free energy is converted into potential energy and stored.

6. (d) Biometrics identification is used in computer science as a form of identification and access control. Biometric identifiers are the distinctive, measurable characteristics used to label individuals. Biometric identifiers are categorized as physiological versus behavioral characteristics. Physiological Biometric identifiers are fingerprint, palm veins, face recognition, DNA, palm print, hand geometry, iris recognition, retina and odour/scent. Behavioural identifiers are typing rhythm, gait and voice.

7. (c) Vegetative reproduction is a form of asexual reproduction in plants. It is a process by which new organisms arise without production of seeds. It helps in development of clones. Vegetative propagation involves only mitosis, this ensures that the genetic information in DNA of vegetative progeny (child) is same as in the mother plant and can be practiced throughout the year. However it does not helps in elimination of viruses. Plant once systematically infected with a virus, usually remains infected for its lifetime. Thus any vegetative parts taken for propagation remains infected.

8. (b) Cassini–Huygens is an unmanned spacecraft sent to the planet Saturn. Therefore, option 1 is wrong, this eliminates option (a), (c) and (d). Now we are left with final answer B only 2 and 3. MESSENGER is a robotic NASA spacecraft orbiting the planet Mercury. Voyager 1 (September 1977) and voyager 2 (Aug 1977) were launched to study the outer Solar System.

9. (d) Kinnu (Himachal) is famous for apples. Areca nut mostly confined to Karnataka, Kerala and Assam. Mewat in haryana is not famous for mango. UP is famous for mango. Similarly, coromandel coast is not famous for soyabean. Top two producers of soy are Madhya Pradesh and Maharashtria which are outside coromandel coast. Therefore, (d) is the correct option.

10. (b) Chemical changes occur when a substance combines with another to form a new substance. Crystallization of sodium chloride is not a chemical as water of crystallization can be lost to get salt again. Similarly melting of ice is reversible. However souring of milk is a chemical change as it is not reversible and a new compound is formed.

11. (c) It is under original jurisdiction the supreme court decides the disputes between centre and one or more states.

12. (d) Transgenic crops include transfer of DNA between two unrelated species. All the above methods does not involve transfer DNA.

13. (d) All three statements are correct as Maize can be used for the production of starch. Oil extracted from maize can be a feedstock for biodiesel. Alcoholic beverages can be produced by using maize.

14. (a) Mite, Spider and Scorpion belong to the category of Arachnids, while Crabs belong to the category of crustaceans.

15. (b) It is the Parliament which has the power to increase the number of judges in the Supreme Court of India. Parliament increased the number of judges from the original eight in 1950 to eleven in 1956, fourteen in 1960, eighteen in 1978, twenty-six in 1986 and thirty-one in 2008.

16. (b) Chanderi in Madhyapradesh and Kancheepuram in Tamil Nadu are famous for Silk sarees.

17. (d) NH 4 is a major National Highway in Western and Southern India. It connects Mumbai with Chennai. NH 6, runs through Gujarat, Maharashtra, Chattisgarh, Odisha, Jharkhand and West Bengal state in India. It connects Surat with Kolkata. NH 15 is a major National Highway in Western and Northwestern India. NH 15 connects Samakhiali in Gujarat with Pathankot in Punjab.

18. (d) The International Treaty on Plant Genetic Resources for Food and Agriculture aims at guaranteeing food security through the conservation, exchange and
26. (a) The Global Environment Facility (GEF) unites 183 countries in partnership with international institutions, civil society organizations (CSOs), and the private sector to address global environmental issues. It serves as a financial mechanism for the United Nations Framework Convention on Climate Change and the need to save the planet.

27. (a) Photovoltaics is a technology that generates electricity by direct conversion of light into electricity, while Solar Thermal is a technology that utilizes the Sun's rays to generate heat which is further used in electricity generation process. Both Photovoltaic cells and solar thermal generate direct current (DC). India has a manufacturing base for both.


29. (c) Dampa Tiger Reserve, the largest wildlife sanctuary in Mizoram. Saramati peak is in Nagaland. It is located near Tuensang town with a height of 3,826 m. Gumti Wildlife Sanctuary is famous wildlife reserve in Tripura.

30. (b) This organization is in partnership but not formed by Ramsar convention. The organization was formed in 1954 and Ramsar convention was signed in 1971. “Wetlands International”, It is an intergovernmental organization formed by the countries which are signatories to Ramsar Convention. It works at the field level to develop and mobilize knowledge, and use the practical experience to advocate for better policies.

31. (b) BRICS is the acronym for an association of five major emerging national economies: Brazil, Russia, India, China, and South Africa. The grouping was originally known as “BRIC” before the inclusion of South Africa in 2010. The BRIC first formal summit held in Yekaterinburg, commenced on 16 June 2009.

32. (b) Continental Drift and Glacial Cycles have influenced the evolution of organisms. Continental drift is the movement of the Earth's continents relative to each other by appearing to drift across the ocean bed. A glacial period is an interval of time within an ice age that is marked by glacier advances.

33. (c) The Radcliffe Line is a boundary demarcation line between India and Pakistan upon the Partition of India. The Radcliffe Line was named after its architect, Sir Cyril Radcliffe.

34. (c) Hibernation is a state of inactivity and metabolic depression in endothermism characterized by low body temperature, slow breathing and heart rate, and low metabolic rate. It is found in bats, bears, and rodents. etc.
39. (c) Volcanic action, Respiration and decay of organic matter adds/add carbon dioxide to the carbon cycle on the planet Earth. However, photosynthesis uses Carbon dioxide to produce food.

40. (b) Common Myna are birds stalking alongside the cattle to seize the insects disturbed by their movement through grasses. The common myna is readily identified by the brown body, black hooded head and the bare yellow patch behind the eye.

41. (b) In 1911 King George V visited India. A Durbar was held at Delhi and the capital of India was transferred from Calcutta to Delhi also Partition of Bengal was annulled.

42. (b) The 1929 Session of Indian National Congress is of significance in the history of the Freedom Movement because the attainment of Poona Swaraj was adopted as the goal of the Congress.

43. (d) Sattriya dance form was introduced in the 15th century A.D by the great Vaishnava saint and reformer of Assam, Mahapurusha Sankaradeva as a powerful medium for propagation of the Vaishnava faith. It is a neo-Vaishnava treasure of Assamese music, dance and drama. Music of Sattriya dance comprises of classical ragas (melodies), talas (rhythms) and traditional songs. Tulsidas, Kabir and Mira were Vaishnavite.

44. (a) Chaitra 1 of the national calendar based on the Saka Era corresponds to 22nd March of the Gregorian calendar in a normal year of 355 days and on 21 March in leap year.

45. (c) 1 is correctly matched because Parinirvana of the Buddha in Cave 17 of Ajanta, with numerous celestial musicians above and the sorrowful figures of his followers below, is one of the grandest and yet most delicately expressive scenes ever made in stone. 2 is wrong because huge image of Varaha Avatar of Vishnu, as rescues Goddess Earth from the deep and chaotic waters, sculpted on rock is found in Mamallapuram. 3 is right because Arjuna’s Penance “Descent of Ganga” sculpted on the surface of huge boulders is found in Mamallapuram.

46. (a) The Ghadar Party was a revolutionary association founded by Punjabi Indians in the United States and Canada with the aim to gaining India’s independence from British rule. Key members included Lala Har Dayal, Sohan Singh Bhakna, Kartar Singh Sarabha, and Rashbehari Bose. It had its headquarters at San Francisco.

47. (d) Kalari payattu is an ancient martial art and a living tradition in some parts of Kerala / South India.

48. (c) Yakshgana is a theatre form of Karnataka. Mohiniattam is from Kerala and Garba is a dance form from Gujarat.

49. (c) Tabo monastery and temple complex is in Spiti Valley and Alchi temple complex is in Ladakh. Lhatsava Lhakhang, Nako is in Himachal Pradesh. Zanskar Valley is in Jammu and Kashmir.

50. (d) Statement 1 is wrong because Kabir founded a community – Kabirpanthi, who consider Bijak, a collection of his verses, as their scripture. Statement 2 is wrong because Vallabhabharya’s philosophy came to be known as Pushthimarga (the path of grace).

51. (b) Manganiyars—a tribal community from Rajasthan (North west) with a strong musical tradition.

52. (a) The object/objects of Queen Victoria’s Proclamation (1858) were to disclaim any intention to annex Indian States as the announcement reversed Lord Dalhousie’s pre-war policy of political unification through princely state annexation. It was also to place the Indian administration under the British Crown Therefore, statement 1 & 2 are correct. However it was not to regulate East India Company’s trade with India so statement 3 is wrong.

53. (c) Ibadat Khana at Fatehpur Sikri was the hall in which Akbar held discussions with scholars of various religions on every Thursday to debate on religious issues raised by Akbar.

54. (b) We have a National Seed policy made in 2002. So 1 is not a constraint. The private sector produces high-priced seeds but in lower volume. It supplies nearly the entire hybrid seeds required for vegetables. So 2 is not a constraint. In the case of low value and high volume crops such as wheat and rice, farmers tend to use their own preserved seeds as there is demand and supply gap. So 3 is a constraint.

55. (d) Eco-sensitive zones are the ecologically important areas designated to be protected from industrial pollution and unregulated development under the Environment Protection Act of 1986. Only environmentally hazardous human activities are prohibited in those areas. Therefore, both the statements are incorrect.

56. (b) The Animal Welfare Board of India was established in 1962 under Section 4 of The Prevention of Cruelty to Animals Act, 1960. The National Tiger Conservation Authority is set up under the Chairmanship of the Minister for Environment and Forests and is a statutory body. National Ganga River Basin Authority was established by the Central Government of India, on 20 February 2009. The Prime Minister is the chair of the Authority.

57. (a) Deficiency of vitamin C causes Scurvy, disease of gums. Deficiency of vitamin D causes Rickets, disease of bones and Deficiency of Vitamin A causes night blindness, disease of eyes.

58. (d) The World Economic Outlook (WEO) database contains selected macroeconomic data series from the statistical appendix of the World Economic Outlook report prepared by IMF.
60. (c) Non-plan expenditure covers interest payments, subsidies (mainly on food and fertilisers), wage and salary payments to government employees, grants to States and Union Territories governments, pensions, police, economic services in various sectors, defence, loans to public enterprises, loans to States, Union Territories and foreign governments.

61. (a) Coral reefs are diverse underwater ecosystems held together by calcium carbonate structures secreted by corals. Andaman & Nicobar, Gulf of Kachchh and Gulf of Mannar have coral reefs. However Sunderbans do not have coral reef.

62. (b) In India, the problem of soil erosion is associated with deforestation. Terrace cultivation helps in less erosion of soil.

63. (c) Monsoon is the only climate which is having reversal of wind between seasons.

64. (c) Panchayatana is a style of temple construction that has a central shrine surrounded by four subsidiary shrines.

65. (b) Rivers Lohit and Subansiri flow through Arunachal Pradesh. River Barak flows in south Assam.

66. (a) Harke Wetlands is at Confluence of Beas and Satluj/Sutlej. The Keoladeo National Park formerly known as the Bharatpur Bird Sanctuary in Bharatpur is at the confluence of two rivers, the Gambhir and Banganga. Kolleru Lake is one of the largest freshwater lakes in India located in state of Andhra Pradesh. Kolleru is located between Krishna and Godavari delta.

67. (c) Lokayata and Kapalika do not form of Six system of Indian philosophy

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<thead>
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<th>Six system of Indian philosophy are</th>
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<tbody>
<tr>
<td>Samkhya</td>
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<td>Vaiseshika</td>
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68. (c) The Cardamom Hills are southern hills of India and part of the southern Western Ghats located in southeast Kerala and southwest Tamil Nadu. They are not in coromandel coast. Kaimur Range is the eastern portion of the Vindhya Range extending from Madhya Pradesh to Bihar. They are not in konkan coast. The Mahadeo Hills are in Madhya Pradesh, state of central India. Mikir hills are in assam i.e. in North East India.

69. (d) The 52nd Amendment act of 1985, added 10th schedule to the Constitution. This is often referred to as anti-defection law.

70. (a) Biosphere reserves are established under UNESCO’s Man and Biosphere (MAB) Programme.

71. (b) Turkey’s smaller part is in Southeastern Europe and its larger part in Western Asia which is located between Black Sea and Mediterranean.

72. (c) The correct sequence of occurrence of the following cities in South-East Asia as one proceeds from south to north is Jakarta-Singapore-Bangkok and Hanoi.

73. (b) If the global temperature increases beyond 3°C above the pre-industrial level then Terrestrial biosphere tends toward a net carbon source and Widespread coral mortality will occur.

74. (d) The words Satyameva Jayate came from Mundaka Upanishad, meaning ‘Truth Alone Triumphs’.

75. (b) Promotion of international peace and security is included in the Directive Principles of State as Article 51 of constitution mentions to promote international peace and security and maintain just an honorable relations between nations between nations; to foster respect for international law and treaty obligations, and to encourage settlements of international disputes by arbitration.

76. (c) Integrated Watershed Management Programme (IWMP) was launched during 2009-10. It aims at Prevention of soil runoff, Rainwater harvesting and recharge of groundwater table and Regeneration of natural vegetation.

77. (c) Finance commission is involved in distribution of taxes and grants. It is not involved in planning. So by just eliminating all options involving statement 1, we get answer (c) correct.

78. (c) The functions of the Cabinet Secretariat are preparation of agenda for Cabinet Meetings & Secretarial assistance to Cabinet Committees. However Allocation of financial resources to the Ministries as per the provisions in budget is prepared by finance ministry.

79. (c) A constitutional Government needs to balance between individual liberty viz a viz State Authority.

80. (b) The governor has Constitutional discretion in cases of Reservation of bill for consideration of the President and Recommendation of the imposition of President’s rule. Therefore, statement 1 and 3 are definitely right. Moreover Governor only appoints those persons as ministers who are recommended by the Chief Minister. So Governor doesn’t have “Discretion” in appointment of the minister. Therefore 2 is wrong.

81. (b) In medieval India, the designations ‘Mahattara’ and ‘Pattakila’ were used for village headmen.

82. (b) In organisms called lichens, a chlorophyll-containing partner, which is an alga, and a fungus live together. The fungus provides shelter, water and minerals to the alga and, in return, the alga provides food which it prepares by photosynthesis.

83. (a) Oak and Rhododendron is found in Himalayan region while sandalwood is found in south India.

84. (d) In steel furnace coke reacts with iron to release pollutants like Oxides of sulphur, Oxides of nitrogen, Carbon monoxide & Carbon dioxide.
Buddha was born in Lumbini, in Kosala kingdom. Buddha died in Kusinara, in Magadha kingdom. Avanti lay outside the area visited by Buddha, and was converted to his teaching by his disciple Mahakaccana. Gandhara is the western part of Pakistan & Afghanistan and Buddha never went to Pakistan.

Every year the Gond and Korku tribes celebrate a month-long, ecologically important campaign/festival in which they plant saplings of fruit-bearing trees.

Taxes on toothpaste come under GST which is administered by the State government. Sales tax is paid to sales tax authority in the state from where the goods are moved.

Venture capital (VC) is a long-term financial capital provided to early-stage, high-potential, growth startup companies or new companies.

12th Five Year Plan of the Government of India (2012-17) aims at faster, sustainable and more inclusive growth.

The current account consists of the balance of trade and balance of invisibles.

Marginal Standing Facility rate is the rate at which banks borrow funds overnight from the Reserve Bank of India (RBI) against approved government securities. Net Demand and Time Liability is the sum of demand and time liability of Banks with public and other banks wherein assets with other banks is subtracted to get net liability of other bank.

Besides giving access to banking, it also enables government subsidies and social security benefits to be directly credited to the accounts of the beneficiaries, enabling them to draw the money from the bank saathi or business correspondents in their village itself.

Because Reserve requirements are designed as "precautionary measures" and not to stop banks from "excessive" profit. This eliminates (c) and (d).

The Arab Spring is a revolutionary wave of demonstrations, protests and civil wars in the Arab world that began on 18 December 2010 and spread throughout the countries of the Arab League. It originally started from Tunisia.

The Arctic Council is a high-level intergovernmental forum that addresses issues faced by the Arctic governments and the indigenous people of the Arctic. It has eight member countries: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States.

The Chechen Republic is a federal subject (a republic) of Russia. Darfur is a region in western Sudan. Swat is a valley and an administrative district in Pakistan.

Agni IV is a surface-to-surface missile. It is fuelled by solid propellant. It can deliver one-tonne nuclear warheads about 4000 km away.

Shale gas contains methane. First statement says it contains ‘propane and butane only’ is wrong. Shale gas resources exist in India. Therefore, statement 2 is also wrong.

The Changpa are a semi-nomadic Tibetan ethnic group found mainly in Zanskar region of Jammu and Kashmir. They rear the Pashmina goats that yield a fine wool. They are kept in the category of Scheduled Tribes.

Guar gum is used in hydraulic fracturing technology during shale gas extraction.