

NDA PAPER – 2**Time Allowed: Two Hours and Thirty Minutes****Maximum Marks: 600****INSTRUCTIONS**

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. **Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the Answer Sheet liable for rejection.**
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write **anything else** on the Test Booklet.
4. This Test Booklet contains 150 items (questions) in two parts: PART - A and PART - B. Each **item in PART - B** is printed both in Hindi and English. Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. See directions in the Answer Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer Sheet**. You are permitted to take away with you the Test Booklet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong Answers :**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
(i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third (0-33) of the marks assigned to that question will be deducted as penalty.
(ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to that question.
(iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

Directions for the following 13 (thirteen) items:

Look at the underlined part of each sentence. Below each sentence are given three possible substitutions for the underlined part. If one of them (a), (b) or (c) is better than the underlined part, indicate your response on the Answer Sheet against the corresponding letter (a), (b) or (c). If none of the substitutions improves the sentence, indicate (d) as your response on the Answer Sheet. Thus a "No improvement" response will be signified by the letter (d).

18. My old teacher gave many poor students money in spite of he was poor.
 (a) even though (b) as if (c) however (d) NO IMPROVEMENT
19. You should to read the newspapers regularly if you want to be well-informed.
 (a) ought (b) have to (c) should be (d) NO IMPROVEMENT
20. If he had listening to me he would not have got lost.
 (a) listened me (b) listened to me (c) listen me (d) NO IMPROVEMENT
21. He asked for a bank loan also he didn't have sufficient resources.
 (a) because (b) even if (c) requiring (d) NO IMPROVEMENT
22. I went to the shop to buy some stationeries.
 (a) stationery (b) stationary (c) stationeries (d) NO IMPROVEMENT
23. I have been waiting here for the last two hours.
 (a) from (b) since (c) by (d) NO IMPROVEMENT
24. The table needs to be painted.
 (a) paint (b) painting (c) having paint (d) NO IMPROVEMENT
25. It began to rain heavily just when I prepare to go out.
 (a) prepared (b) was preparing (c) have prepared (d) NO IMPROVEMENT
26. The couple seemed to love one another very much.
 (a) every other (b) each (c) each other (d) NO IMPROVEMENT
27. It is high time that we did something.
 (a) had done (b) would do (c) have done (d) NO IMPROVEMENT
28. If I were a millionaire, I would have helped the poor.
 (a) am capable of helping (b) could have helped
 (c) would help (d) NO IMPROVEMENT
29. The training programme was extended for a month.
 (a) from (b) until (c) since (d) NO IMPROVEMENT
30. The painting which they were looking at was done by my sister.
 (a) what (b) that (c) whom (d) NO IMPROVEMENT

SELECTING WORDS**Directions for the following 10 (ten) items :**

Each of the following sentences has a blank space and four words given after the sentence. Select whichever word you consider most appropriate for the blank space and indicate your response on the Answer Sheet.

31. She has been lying in bed for the last fortnight. I hope she will _____.
 (a) come out (b) pull out (c) pull through (d) go out
32. The path of progress is beset _____ difficulties.
 (a) with (b) by (c) through (d) along
33. I feel _____ for those who are cruel to their children.
 (a) Sympathy (b) contempt (c) admiration (d) craving.

34. Both the parties were keen to have an _____ settlement of the dispute.
 (a) enviable (b) inimical (c) worthy (d) amicable
35. I have come to know that the two brothers have _____.
 (a) fallen through (b) fallen out (c) fallen for (d) fallen short
36. Everybody finds his own work _____ whereas he feels that others have delightful jobs.
 (a) tedious (b) fabulous (c) unprofitable (d) indigestible
37. The accident took place because of the criminal _____ of the driver.
 (a) performance (b) disregard (c) negligence (d) slackness
38. The belief in the _____ of vaccination is gaining ground.
 (a) immunity (b) prevalence (c) efficacy (d) workability
39. Our new leader is a _____ young man and will take us forward.
 (a) haughty (b) intoxicated (c) fanciful (d) dynamic
40. They found a world of _____ between what he said and what he did.
 (a) Chaos (b) bitterness (c) difference (d) hope

SYNONYMS

Directions for the following 5 (five) items:

Each item in this section consists of a sentence with an underlined word or words followed by four words or groups of words. Select the word or groups of words that is most similar in meaning to the underlined word.

41. Hospitality is a virtue for which the natives of the East in general are highly admired.
 (a) Duty of a doctor (b) Generosity shown to guests
 (c) Cleanliness in hospitals (d) Kindness
42. House rent in cities like Mumbai or Delhi has risen to astronomical figures beyond the reach of even high-salaried people.
 (a) exorbitant (b) commercial (c) planetary (d) illogical
43. Appropriate technology holds the key to a nation's development.
 (a) Modern (b) Suitable (c) Effective (d) Growing
44. He was enamoured of his own golden voice.
 (a) very fond of (b) concerned with (c) obsessed with (d) imbued with
45. Some journalists are guilty of indulging in yellow journalism.
 (a) misrepresentation (b) vulgarization
 (c) sensational reporting (d) loud gestures

ANTONYMS

Directions for the following 5 (five) items:

Each item in this section consists of a sentence with an underlined word or words followed by four words or groups of words. Select the word or group of words that is most nearly opposite in meaning to the underlined word.

46. The culprit was sentenced by the Court.
 (a) acquitted (b) punished (c) relieved (d) pardoned
47. Thrifty as he is, he can well afford to live within his means.
 (a) careless (b) instinctive (c) sentimental (d) extravagant
48. Do not give him a responsible job, he is immature.
 (a) thoughtful (b) cautious (c) calculating (d) seasoned

49. I was prepared to show my hand provided he agreed to do the same.

- (a) to yield (b) to shake hands
(c) to conceal my plan (d) to lose my ground

50. Akbar the great was a sagacious ruler.

- (a) haughty (b) cunning (c) rude (d) unwise

PART-B

51. Which one of the following statements is not correct?

- (a) The longest wavelength of light visible to human eye is about 700 nm
(b) The shortest wavelength of light visible to human eye is about 400 nm
(c) The wavelength of gamma rays is longer than that of X-rays
(d) The ability of a telescope to form separable images of close objects is called its resolving power

52. If the image of an object, formed by a concave mirror is virtual, erect and magnified, then the object is placed

- (a) at the principal focus
(b) at the centre of curvature
(c) beyond the centre of curvature
(d) between the pole of the mirror and the principal focus

53. When three resistors, each having resistance r , are connected in parallel, their resultant resistance is x . If these three resistances are connected in series the total resistance will be

- (a) $3x$ (b) $3rx$ (c) $9x$ (d) $3/x$

54. Which of the following was/were the feature(s) of Lenin's New Economic Policy (NEP) for the Soviet Union?

1. Private retail trading was strictly forbidden
2. Private enterprise was strictly forbidden
3. Peasants were not allowed to sell their surplus
4. To secure liquid capital, concessions were allowed to foreign capitalists, but the State retained the option of purchasing the products of such concerns

Select the correct answer using the code given below:

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

55. Which of the following was/were the reasons for the defeat of British during the American War of Independence?

1. The remoteness of the American Continent and the lack of good roads
2. The British authorities failed to rally the loyalist Americans
3. The Americans benefited from the extraordinary military leadership of George Washington
4. The Americans had access to superior arms and ammunition

Select the correct answer using the code given below :

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

56. The industrial revolution in England had a profound impact on the lives of people. Which of the following statements are correct about that?

1. Women were the main workers in the silk, lace-making and knitting industries
2. Factory managers were well aware of the health risks of industrial work on children
3. Children were often employed in textile factories
4. The novel 'Hard Times' by Charles Dickens was a severe critique of the horrors of industrialization

Select the correct answer using the code given below :

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

57. Consider the following statements:

1. British colonialism continued to grow steadily in the 18th and 19th centuries
2. Raw cotton for the textile industry in Britain during the industrial revolution needed to be imported

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

58. Who among the following was the author of Neel Darpan, published in 1860 ?

- (a) Reverend James Long
(b) Michael Madhusudan Dutta
(c) Raja Ram Mohan Roy
(d) Dinabandhu Mitra

59. Which one of the following organizations was started by Jyotirao Phule in 1837?

- (a) Prarthana Samaj
(b) Bahujan Samaj
(c) Justice Party
(d) Satyashodhak Samaj

60. Although used earlier by French and German writers, the term 'Industrial Revolution' in English was first popularized by

- (a) Adam Smith (b) Arnold Toynbee (c) James Mill (d) Bertrand Russell

61. In the 19th century, the majority of the workers in Japan's modern industries were mainly

- (a) Japanese men and children
(b) Japanese women and Chinese men
(c) women
(d) Japanese and Chinese men

62. Which of the following statements regarding recent developments in international affairs is/are correct?

1. NATO's defence ministers agree to boost support for Ukraine with a comprehensive package of assistance which will help it strengthen defence and to modernize its armed forces.
2. Israel announces plans for construction of dwelling units for Jewish settlers in a Palestinian neighbourhood of East Jerusalem.

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

63. As per the RBI guidelines, which one of the following is the minimum tenure of Masala Bonds that an Indian company can issue offshore?

- (a) Five years (b) Four years (c) Three years (d) Two years

64. Which of the following statements about Krishi Kalyan Cess (KKC) is/are correct?

1. KKC is calculated in the same way as Service Tax is calculated.
2. The current rate of KKC is 0.50%.
3. KKC is similar to the KKS (Krishi Kalyan Surcharge).

Select the correct answer using the code given below:

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

65. Which country won the Thomas Cup Badminton Championship, 2016?
 (a) Indonesia (b) Denmark (c) China (d) Malaysia
66. Match List I with List II and select the correct answer using the code given below the Lists :
- | | |
|---|--------------------|
| List I
(Ultra mega power project at different stages of development) | List II
(State) |
| A. Sasan | 1. Gujarat |
| B. Mundra | 2. Madhya Pradesh |
| C. Talaiya | 3. Andhra Pradesh |
| D. Krishnappattam | 4. Jharkhand |

Code :

- | | | | | |
|-----|---|---|---|---|
| | A | B | C | D |
| (a) | 2 | 4 | 1 | 3 |
| (b) | 3 | 4 | 1 | 2 |
| (c) | 2 | 1 | 4 | 3 |
| (d) | 3 | 1 | 4 | 2 |
67. The world's largest biomass cookstove system for cooking in community kitchen has been installed at
 (a) Tirupati (b) Amritsar (c) Shirdi (d) Udupi
68. Which one of the following sectors is the largest contributor to carbon dioxide emissions from fuel consumption in India?
 (a) Electricity and heat production
 (b) Transport
 (c) Manufacturing industries and constructions
 (d) Others
69. As per census 2011, which one of the following states has the highest number of inhabited villages?
 (a) Uttar Pradesh (b) Odisha (c) Rajasthan (d) Maharashtra
70. The property of electric current which is applicable in the fuse wire is
 (a) chemical effect of current (b) magnetic effect of current
 (c) heating effect of current (d) optical property of current

The following 6(Six) items consist of two statements, Statement I and Statement II. Examine these two statements carefully and select the correct answer using the code given below:

Code :

- (a) Both the statements are individually true and Statement II is the correct explanation of Statement I
 (b) Both the statements are individually true but Statement II is not the correct explanation of Statement I
 (c) Statement I is true but Statement II is false
 (d) Statement I is false but Statement II is true
71. Statement I : Variability of annual rain-fall is very high in western part of Rajasthan.
 Statement II : Average annual rainfall is extremely low in western Rajasthan.

72. Statement I : Ozone is a tri-atomic molecule of oxygen.
Statement II : Ozone is concentrated mainly in stratosphere.
73. Statement I : The laterite soils develop in areas with high temperature and high rainfall.
Statement II : Laterite soils are the result of intense leaching process.
74. Statement I : Too much salt content in diet could be one of the reasons for kidney failure.
Statement II : High salt may cause high blood pressure.
75. Statement I : The city of Rome revived in a spectacular way in the 15th century.
Statement II : From the 15th century onwards, artists were known individually by name, not as member of a group or a guild, in Roman society.
76. Statement I : Chartism was the political reform campaign for democratic rights which swept over Britain between 1838 and 1848.
Statement II : The trade union movement declined by the 1830s as it failed to fulfil the aspirations of the working class.
77. 'Sahel' region of Sahara desert is associated with
(a) core area of Sahara desert
(b) southern moving edge of Sahara desert
(c) northern fringe of Sahara desert bordering Mediterranean sea
(d) another name of Sahara desert
78. Which one of the following pairs of a river and its tributary is not correctly matched?
(a) Godavari : Wainganga
(b) Cauvery : Bhavani
(c) Narmada : Amaravati
(d) Krishna : Bhima
79. In which one of the following countries, the Mediterranean type of Biome is found?
(a) Chile (b) Kenya (c) Argentina (d) Bolivia
80. Arrange the following states in order of their decreasing population size as per the census 2011 :
1. West Bengal 2. Bihar
3. Maharashtra 4. Andhra Pradesh
Select the correct answer using the code given below :
(a) 2 - 3 - 1 - 4 (b) 3 - 1 - 4 (c) 1 - 4 - 3 - 2 (d) 3 - 1 - 4 - 2
81. Match List I with List II and select the correct answer using the code given below the Lists :
- | List I | | List II | |
|-----------|----|----------------------|--|
| (River) | | (Mouth of the river) | |
| A. Danube | 1. | North sea | |
| B. Rhine | 2. | Black sea | |
| C. Rhone | 3. | Bay of Biscay | |
| D. Loire | 4. | Mediterranean sea | |
- Code :
 (a) 2 1 4 3
 (b) 3 4 1 2
 (c) 2 4 1 3
 (d) 3 1 4 2

82. Match List I with List II and select the correct answer using the code given below the Lists :

	List I (Process)	List II (Type of change)
A.	Heating Camphor	1. Chemical
B.	Cooling of water vapour up to room temperature	2. Evaporation
C.	Cooking an egg	3. Condensation
D.	Formation of water vapour at room temperature	4. Sublimation

Code:

	A	B	C	D
(a)	4	3	1	2
(b)	4	1	3	2
(c)	2	1	3	4
(d)	2	3	1	4

83. Identify the element having zero valency

- (a) Sulphur (b) Phosphorous (c) Lead (d) Radon

84. There are six electrons, six protons and six neutrons in an atom of an element. What is the atomic number of the element?

- (a) 6 (b) 12 (c) 18 (d) 24

85. Which one of the following has different number of molecules? (All are kept at normal temperature and pressure)

- (a) 3 gram of Hydrogen
 (b) 48 gram of Oxygen
 (c) 42 gram of Nitrogen
 (d) 2 gram of Carbon

86. Which one of the following statements is correct?

- (a) Covalent bonds are directional
 (b) Ionic bonds are directional
 (c) Both covalent and ionic bonds are directional
 (d) Both covalent and ionic bonds are non-directional

87. When one strikes a safety match, the first step is

- (a) burning of sulfur
 (b) decomposition of potassium chlorate into potassium chloride and oxygen
 (c) conversion of a small amount of red phosphorus into white phosphorus
 (d) burning of glue and starch

88. The LPG cooking gas contains propane and butane as the constituents. A sulfur containing compound is added to the LPG, because

- (a) it lowers the cost of production
 (b) it enhances the efficiency of LPG
 (c) it facilitates easy detection of leakage of the gas
 (d) it assists in liquefying hydrocarbons

89. The genetic material of bacteria is found in
(a) nucleus (b) cytoplasm (c) cell membrane (d) ribosome
90. A horse and a donkey can breed to produce mule which is an infertile animal. The infertility is because horse and donkey belong to different
(a) class (b) order (c) species (d) genus
91. A plant having yellow leaves with dead spots has the deficiency of
(a) Potassium (b) Magnesium (c) Nitrate (d) Phosphate
92. Fluoride toothpaste is sometimes recommended because fluoride
(a) prevents plaque formation (b) hardens the enamel of the tooth
(c) kills pathogenic bacteria (d) prevents tooth ache
93. Along a streamline flow of fluid
(a) the velocity of all fluid particles at a given instant is constant
(b) the speed of a fluid particle remains constant
(c) the velocity of all fluid particles crossing a given position is constant
(d) the velocity of a fluid particle remains constant
94. How is the kinetic energy of a moving object affected if the net work done on it is positive?
(a) Decreases (b) Increases (c) Remains constant (d) Becomes zero
95. A particle is executing simple harmonic motion. Which one of the following statements about the acceleration of the oscillating particle is true ?
(a) It is always in the opposite direction to velocity
(b) It is proportional to the frequency of oscillation
(c) It is minimum when the speed is maximum
(d) It decreases as the potential energy increases
96. Which one of the following four particles whose displacement x and acceleration a_x are related as follows, is executing simple harmonic motion?
(a) $a_x = + 3x$ (b) $a_x = + 3x^2$ (c) $a_x = - 3x^2$ (d) $a_x = - 3x$
97. If we plot a graph between volume V and inverse of pressure P (i.e., $\frac{1}{P}$) for an ideal gas at constant temperature T , curve so obtained is
(a) straight line (b) circle (c) parabola (d) hyperbola
98. Which one of the following statements is correct?
(a) The speed of sound waves in a medium depends upon the elastic property of the medium but not on inertia property
(b) The speed of sound waves in a medium depends upon the inertia property of the medium but not on elastic property
(c) The speed of sound waves in a medium depends neither on its elastic property nor on its inertia property
(d) The speed of sound waves in a medium depends both on elastic and inertia properties of the medium

99. Which one of the following statements is not correct?
- Pitch of a sound is its characteristic by which we can generally differentiate between a male voice and a female voice
 - The loudness of sound is related to its frequency
 - A musical sound has certain well defined frequencies which are generally harmonics of a fundamental frequency
 - The timbre of a particular musical sound is related to the waveform of the sound wave
100. A particle executes linear simple harmonic motion with amplitude of 2 cm. When the particle is at 1 cm from the mean position, the magnitudes of the velocity and the acceleration are equal. Then its time period (in seconds) is
- $\frac{2\pi}{\sqrt{3}}$
 - $\frac{\sqrt{3}}{2\pi}$
 - $\frac{\sqrt{3}}{\pi}$
 - $\frac{1}{2\pi\sqrt{3}}$
101. Combination of one volume of nitrogen with three volumes of hydrogen produces
- one volume of ammonia
 - two volumes of ammonia
 - three volumes of ammonia
 - one and a half volumes of ammonia
102. Consider the following statements about cactus:
- The leaves are reduced to spines.
 - The stem does the photosynthesis.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
103. In which one of the following, methano-gens, i.e. methane producing bacteria are not present?
- Rumen of cattle
 - Aerobic environment
 - Anaerobic sludge
 - Excreta of cattle
104. Malarial parasite is a
- bacteria
 - protozoa
 - virus
 - fungus
105. With reference to biodiversity, which of the following statements is/are correct?
- Species richness and high degree of endemism are important criteria for identifying biodiversity hot spots.
 - Species diversity is highest in the tropics and decreases down the poles.
 - Biodiversity conservation may be in situ as well as ex situ.
- Select the correct answer using the code given below :
- 1 only
 - 1 and 3 only
 - 1, 2 and 3
 - 1 and 3 only
106. It is difficult to kill viruses because they
- consist of tough protein coat
 - are very small in size
 - lack cellular structure
 - spend a lot of time inside the host's cells
107. When a ray of light enters a glass slab, then
- only the frequency changes
 - frequency and velocity change
 - frequency does not change
 - frequency and wavelength change
108. A ball is thrown vertically upward from the ground with a speed of 25.2 m/s. The ball will reach the highest point of its journey in
- 5-1 s
 - 3-5 s
 - 2-5 s
 - 1-2 s
109. One kilowatt hour is equal to
- 36×10^3 joule
 - 36×10^5 joule
 - 10^3 joule
 - 10^5 joule

110. When sound waves are propagated through a medium, the physical quantity/ quantities transmitted is/are
- (a) matter only (b) energy only
(c) energy and matter only (d) energy, momentum and matter
111. Pressure is a scalar quantity because
- (a) it is the ratio of force to area and both force and area are vector
(b) it is the ratio of magnitude of force to area
(c) it is the ratio of component of force (normal to area) to area
(d) none of the above
112. A person is unable to read a newspaper without his glasses. He is most probably suffering from
- (a) myopia (b) presbyopia (c) astigmatism (d) hypermetropia
113. The free fall acceleration g increases as one proceeds, at sea level, from the equator toward either pole. The reason is
- (a) Earth is a sphere with same density everywhere
(b) Earth is a sphere with different density at the polar regions than in the equatorial regions
(c) Earth is approximately an ellipsoid having its equatorial radius greater than its polar radius by 21 km
(d) Earth is approximately an ellipsoid having its equatorial radius smaller than its polar radius by 21 km
114. Which one of the following statements is correct?
- (a) The measurement of mass taken by a spring weighing balance is correct at the place where the spring balance is calibrated for
(b) The measurement of mass taken by a spring weighing balance is correct at all places
(c) The measurement of mass taken by a spring weighing balance is correct at the places where the acceleration due to gravity is same with the place where the spring balance is calibrated for
(d) A spring balance cannot be used to measure mass at any place
115. Which one of the following is not a contact force?
- (a) Push force (b) Gravitational force (c) Frictional force (d) Strain force
116. When a force of 1 newton acts on a mass of 1 kg which is able to move freely, the object moves in the direction of force with a/an
- (a) speed of 1 km/s (b) acceleration of 1 m/s^2
(c) speed of 1 m/s (d) acceleration of 1 km/s^2
117. Which one of the following statements is not correct?
- (a) The SI unit of charge is ampere-second
(b) Debye is the unit of dipole moment
(c) Resistivity of a wire of length l of cross-section a depends upon both l and a
(d) The kinetic energy of an electron of mass m kg and charge e coulomb, when accelerated through a potential difference of V volt, is eV joule

118. Two balls, A and B, are thrown simultaneously, A vertically upward with a speed of 20 m/s from the ground and B vertically downward from a height of 40 m with the same speed and along the same line of motion. At what points do the two balls collide by taking acceleration due to gravity as 9.8 m/s^2 ?
- (a) The balls will collide after 3s at a height of 30-2 m from the ground
 (b) The balls will collide after 2s at a height of 20-1 m from the ground
 (c) The balls will collide after 1s at a height of 15-1 m from the ground
 (d) The balls will collide after 5s at a height of 20 m from the ground
119. The setting time of cement is lowered by adding
- (a) oxides of aluminium (b) gypsum
 (c) oxides of magnesium (d) silica
120. Emulsion is known as a
- (a) colloidal solution of substances having different physical states
 (b) true solution (c) distillation mixture for making (d) colloidal solution of two liquids
121. If one mixes up ashes with animal fat, tin substance received in a crude form is called
- (a) Pheromone (b) Soap (c) Cement (d) Concrete
122. Which of the following statements with regard to coverage rate of Aadhar card: during 2015 is/are correct?
- The coverage rate of Aadhar cards in western India is quite high and it is above 90 per cent in Gujarat
 - The coverage rate of Aadhar cards is the highest in southern India and it is almost 100 per cent in the states of Telangana and Andhra Pradesh
 - The penetration of Aadhar cards has been very low in north-eastern part of India and it is the lowest in Assam and Meghalaya
- Select the correct answer using the code given below:
- (a) 2 only (b) 1 and 3 only (c) 2 and 3 only (d) 1, 2 and 3
123. Which one of the following is the correct descending order of countries in terms of per capita availability of arable land?
- (a) India - China - Brazil (b) China - Brazil - India
 (c) Brazil - China - India (d) Brazil - India - China
124. Match List I with List II and select the correct answer using the code given below the Lists :
- | List I | | List II | |
|----------------------|----|-------------|--|
| (Geomorphical Agent) | | (Feature) | |
| A. Ground water | 1. | Plunge pool | |
| B. Running water | 2. | Horns | |
| C. Glacier | 3. | Playas | |
| D. Wind | 4. | Lapies | |
- Code:
- | | | | | |
|-----|---|---|---|---|
| | A | B | C | D |
| (a) | 4 | 1 | 2 | 3 |
| (b) | 3 | 2 | 1 | 4 |
| (c) | 3 | 1 | 2 | 4 |
| (d) | 4 | 2 | 1 | 3 |

125. Which of the following statements concerning temperature is/are correct?
1. In winter season isotherms in Northern Hemisphere are more or less circular on continents
 2. Isotherms are parallel to latitude in Southern Hemisphere in oceans
 3. Minimum temperature during winter is recorded in Northern Canada
- Select the correct answer using the code given below :
- (a) 1 and 2 only (b) 1 and 3 only (c) 1, 2 and 3 (d) 2 only
126. Which of the following statement(s) concerning natural regions of the world is/are correct?
1. Equatorial climatic regions have less urbanization
 2. Mediterranean climatic regions have high level of urbanization
 3. Equatorial climatic regions have high concentration of human population
 4. Mediterranean climatic regions practice plantation farming
- Select the correct answer using the code given below:
- (a) 1 and 2 only (b) 1,2 and 3 (c) 2 and 4 (d) 1 only
127. Which one of the following gases gives acidic solution on dissolving in water?
- (a) Hydrogen (b) Carbon dioxide (c) Nitrogen (d) Oxygen
128. How many moles of hydrogen atom are present in one mole of Aluminium hydroxide?
- (a) One mole (b) Two moles (c) Three moles (d) Four moles
129. The United Nations proclaimed 21 June as
- (a) International Mother Language Day
(b) International Widows' Day
(c) International Day of Yoga
(d) International Day against Drug Abuse and Illicit Trafficking
130. Who are Bhawana Kanth, Avani Chaturvedi and Mohana Singh?
- (a) Sprinters (b) Rock climbers (c) Fighter pilots (d) Mountaineers
131. Consider the following statements about the Constitution of India :
1. A Member of Parliament enjoys freedom of speech in the Parliament as a Parliamentary Privilege protected by the Constitution of India.
 2. The Constitution has vested the power to amend the Constitution in the Parliament.
- 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
132. Which one of the following statements about the Union Executive in India is correct?
- (a) According to the Constitution of India, the total number of members of the Council of Ministers cannot exceed 20% of the total number of Members of the House of the People
- (b) The rank of the different Ministers is determined by the President
- (c) The Ministers are appointed by the President on the advice of the Prime Minister
- (d) Only a member of either House of Parliament can be appointed as a Minister
133. Which one of the following statements about Money Bill is correct?
- (a) A Bill shall be deemed to be a Money Bill only if it provides for imposition of fines or penalties
- (b) A Money Bill shall be introduced in the Rajya Sabha
- (c) The Rajya Sabha can reject the Money Bill
- (d) The Speaker of the Lok Sabha finally decides if it is a Money Bill, should any dispute about it arise

134. Which one of the following powers of the Prime Minister of India is codified in the Constitution of India itself?
- The power of advising the President as regards the appointment of other Ministers
 - The power to allocate business amongst the Ministers
 - The power to summon the meeting of the Cabinet
 - The power to transfer a Minister from one Department to another
135. The cylindrical stone seals were used in which civilization?
- Harappan
 - Egyptian
 - Roman
 - Mesopotamian
136. Which of the following statements with regards to the Civil Disobedience movement is/are correct?
- The movement received massive response from business groups and peasantry
 - The movement coincided with large scale labour upsurge in Maharashtra
 - The movement was marked by the mass participation of lawyers and students
- Select the correct answer using the code given below:
- 1 only
 - 1 and 2 only
 - 2 and 3 only
 - 2 and 3
137. Which of the following items is used in the household wirings to prevent accidental fire in case of short circuit ?
- Insulated wire
 - Plastic switches
 - Non-metallic coatings on conducting wires
 - Electric fuse
138. Which of the following are the features of the ideology of utilitarianism?
- Utilitarians believed that all value derives from land
 - The most celebrated spokesmen of utilitarianism were Jeremy Bentham and John Stuart Mill
 - Utilitarians were advocates of the idea that India could be ruled through indigenous laws and customs
 - Utilitarians were advocates of the idea of the 'greatest good for the greatest number of people'
- Select the correct answer using the code given below :
- 1 and 4 only
 - 2 and 3 only
 - 1,2 and 4
 - 2 and 3
139. Who among the following invented the powerloom that revolutionized the cotton textile industry?
- Edmund Cartwright
 - Samuel Crompton
 - Richard Arkwright
 - James Hargreaves
140. Subsidiary Alliance was a system devised by
- Lord Wellesley
 - Lord Dalhousie
 - Lord Canning
 - Lord Ripon
141. Consider the following statements:
- Periplus is a Greek word meaning sailing around.
 - Erythraean was the Greek name for the Mediterranean Sea.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
142. Who among the following was defeated by Saina Nehwal to win the women's title of the Australian Open Super Series Badminton Tournament, 2016?
- Sun Yu
 - Carolina Mann
 - Wang Yihan
 - Sung Ji Hyun

143. Consider the following statements :

He was an Indian journalist, editor and author. He was associated with the Statesman, the Guardian, the Times of India etc. He received the Ramnath Goenka Lifetime Achievement Award in 2012. He died in June 2016.

The person referred to above is

- (a) B K Karanjia (b) K M Mathew
(c) Inder Malhotra (d) Nanasaheb Parulekar

144. Achyut Lahkar, who died recently, was a

- (a) sports administrator (b) wildlife photographer
(c) mobile theatre personality (d) bureaucrat

145. Recently Microsoft announced its 26-2 billion dollar acquisition of which one of the following professional networking sites?

- (a) PartnerUp (b) PerfectBusiness
(c) StartupNation (d) LinkedIn

146. Which of the following statements concerning Mediterranean climatic region are correct?

1. It is found in the latitude range 30° to 45° northern and southern hemisphere
2. Mediterranean climate experiences extreme temperature conditions
3. In Mediterranean climate, rainfall occurs mainly during summer season
4. In Mediterranean climate, rainfall is mainly due to Westerlies

Select the correct answer using the code given below:

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

147. Arrange the following states in decreasing order of their total area under forest cover:

1. Jharkhand
2. Chhattisgarh
3. Arunachal Pradesh
4. Madhya Pradesh

Select the correct answer using the code given below :

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

148. Which of the following statements concerning Scheduled Castes (SC) population in India are correct?

1. The highest percentage of SC population out of the total population of the state is found in Punjab
2. Bihar is the second largest state in respect of total SC population in India
3. Uttar Pradesh has the highest number of SC population in India
4. Among the Indian states, the lowest percentage of SC population out of the total population of the state is found in Goa

Select the correct answer using the code given below:

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

149. Match List I with List II and select the correct answer using the code given below the Lists:

	List I (Element)		List II (Highest Valency)
A.	Sulfur	1.	Five
B.	Phosphorous	2.	Six.
C.	Lead	3.	Two
D.	Silver	4.	Four

Code :

	A	B	C	D
(a)	2	4	1	3
(b)	2	1	4	3
(c)	3	1	4	2
(d)	3	4	1	2

150. Which one of the following species is not capable of showing disproportionation reaction?

- (a) ClO^- (b) ClO_2^- (c) ClO_3^- (d) ClO_4^-