

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

T.B.C. : ADN-S-FST

Test Booklet Series

Serial No.

0364937

TEST BOOKLET
GENERAL ABILITY TEST

A

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.

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ध्यान दें : अनुदेशों का हिन्दी रूपान्तर इस पुस्तिका के पिछले पृष्ठ पर छपा है।

PART – A

SPOTTING ERRORS

Directions for the following 10 (ten) items :

Each question in this section has a sentence with three underlined parts labelled (a), (b) and (c). Read each sentence to find out whether there is any error in any underlined part and indicate your response in the Answer Sheet against the corresponding letter i.e., (a) or (b) or (c). If you find no error, your response should be indicated as (d).

1. My friend was habitual to drive a car at very high speed. No error.
(a) (b) (c) (d)
2. Being a day of national mourning the offices were closed
(a) (b)
and the national flag flew half mast. No error.
(c) (d)
3. If you are wanting to watch the birds nesting you must not let them see you. No error.
(a) (b) (c) (d)
4. He does not listen to what I say, although I am advising him for a long time. No error.
(a) (b) (c) (d)
5. It is most essential for us to reach the station before noon lest we should miss the train.
(a) (b) (c)
No error.
(d)
6. I asked him what had brought him there. No error.
(a) (b) (c) (d)
7. The guards dare not to harm him. No error.
(a) (b) (c) (d)
8. The Principal looks very worried
(a)
because students are on strike for the last fifteen days as a protest against
(b)
his disciplinary action against some miscreants. No error.
(c) (d)

9. The king was embarrassed to find evidences against his own queen. No error.
(a) (b) (c) (d)
10. As I prefer coffee than tea my friends always take the trouble
(a) (b)
to get me a cup of coffee whenever I visit them. No error.
(c) (d)

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.

11. 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
12. 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
13. Appropriate technology holds the key to a nation's development.
- (a) Modern
- (b) Suitable
- (c) Effective
- (d) Growing
14. He was enamoured of his own golden voice.
- (a) very fond of
- (b) concerned with
- (c) obsessed with
- (d) imbued with
15. 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.

16. The culprit was sentenced by the Court.
(a) acquitted
(b) punished
(c) relieved
(d) pardoned
17. Thrifty as he is, he can well afford to live within his means.
(a) careless
(b) instinctive
(c) sentimental
(d) extravagant
18. Do not give him a responsible job, he is immature.
(a) thoughtful
(b) cautious
(c) calculating
(d) seasoned
19. 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
20. Akbar the great was a sagacious ruler.
(a) haughty
(b) cunning
(c) rude
(d) unwise

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.

21. 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
22. The path of progress is beset _____.
(a) with
(b) by
(c) through
(d) along
23. I feel _____ for those who are cruel to their children.
(a) sympathy
(b) contempt
(c) admiration
(d) craving
24. Both the parties were keen to have an _____ settlement of the dispute.
(a) enviable
(b) inimical
(c) worthy
(d) amicable

25. I have come to know that the two brothers have _____.
(a) fallen through
(b) fallen out
(c) fallen for
(d) fallen short
26. Everybody finds his own work _____ whereas he feels that others have delightful jobs.
(a) tedious
(b) fabulous
(c) unprofitable
(d) indecent
27. The accident took place because of the criminal _____ of the driver.
(a) performance
(b) disregard
(c) negligence
(d) slackness
28. The belief in the _____ of vaccination is gaining ground.
(a) immunity
(b) prevalence
(c) efficacy
(d) workability
29. Our new leader is a _____ young man and will take us forward.
(a) haughty
(b) intoxicated
(c) fanciful
(d) dynamic
30. They found a world of _____ between what he said and what he did.
(a) chaos
(b) bitterness
(c) difference
(d) hope

ORDERING OF WORDS IN A SENTENCE

Directions for the following 7 (seven) items :

Each of the following items in this section consists of a sentence the parts of which have been jumbled. These parts have been labelled P, Q, R and S. Given below each sentence are four sequences namely (a), (b), (c) and (d). You are required to rearrange the jumbled parts of the sentence and mark your response accordingly.

31. The statement therefore you must listen carefully what the speaker has said
P Q
in order to understand will be made just once
R S

The proper sequence should be

- (a) S P R Q
(b) S R Q P
(c) R S P Q
(d) S P Q R

32. The small boy who broke his leg fell down and climbed the wall
P Q R S

The proper sequence should be

- (a) P S R Q
- (b) S Q R P
- (c) Q S R P
- (d) S P R Q

33. According to an engineer might hit the market next year
P
a newly developed air-cooler system that employed in conventional room coolers
Q R
which is based on a principle radically different from
S

The proper sequence should be

- (a) S Q R P
- (b) R S Q P
- (c) Q S R P
- (d) P Q R S

34. The clerk on the desk left the money in the safe which he should have locked up
P Q R S

The proper sequence should be

- (a) S R Q P
- (b) Q R S P
- (c) P Q R S
- (d) Q P S R

35. Hardly had my brother descended from the plane when the people waved and cheered
P Q
who had come to receive him from the lounge
R S

The proper sequence should be

- (a) P Q R S
- (b) R S P Q
- (c) R P Q S
- (d) P R S Q

36. The essay like that of the human face because its variety is infinite is a literary form
P Q R
which is not easy to define
S

The proper sequence should be

- (a) P Q R S
- (b) P Q S R
- (c) R S Q P
- (d) R S P Q

37. The exhibition committee attractive and useful to make exhibition making efforts
P Q R
has been
S

The proper sequence should be

- (a) Q S R P
- (b) S R Q P
- (c) Q P S R
- (d) S P Q R

SENTENCE IMPROVEMENT

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).

38. 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

39. 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
40. 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
41. He asked for a bank loan also he didn't have sufficient resources.
- (a) because
 - (b) even if
 - (c) requiring
 - (d) NO IMPROVEMENT
42. I went to the shop to buy some stationeries.
- (a) stationery
 - (b) stationary
 - (c) stationaries
 - (d) NO IMPROVEMENT
43. I have been waiting here for the last two hours.
- (a) from
 - (b) since
 - (c) by
 - (d) NO IMPROVEMENT
44. The table needs to be painted.
- (a) paint
 - (b) painting
 - (c) having paint
 - (d) NO IMPROVEMENT

45. It began to rain heavily just when I prepare to go out.
- (a) prepared
 - (b) was preparing
 - (c) have prepared
 - (d) NO IMPROVEMENT
46. The couple seemed to love one another very much.
- (a) every other
 - (b) each
 - (c) each other
 - (d) NO IMPROVEMENT
47. It is high time that we did something.
- (a) had done
 - (b) would do
 - (c) have done
 - (d) NO IMPROVEMENT
48. 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
49. The training programme was extended for a month.
- (a) from
 - (b) until
 - (c) since
 - (d) NO IMPROVEMENT
50. The painting which they were looking at was done by my sister.
- (a) what
 - (b) that
 - (c) whom
 - (d) NO IMPROVEMENT

PART – B

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

51. Statement I : Variability of annual rainfall is very high in western part of Rajasthan.

Statement II : Average annual rainfall is extremely low in western Rajasthan.

52. Statement I : Ozone is a tri-atomic molecule of oxygen.

Statement II : Ozone is concentrated mainly in stratosphere.

53. 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.

54. 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.

55. 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.

56. 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.

57. '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

58. 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

59. In which one of the following countries, the Mediterranean type of Biome is found ?

- (a) Chile
- (b) Kenya
- (c) Argentina
- (d) Bolivia

60. 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 - 2 - 1 - 4
- (c) 1 - 4 - 3 - 2
- (d) 3 - 1 - 4 - 2

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

List I
(River)

List II
(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 | B | C | D |
|-----|---|---|---|---|
| (a) | 2 | 1 | 4 | 3 |
| (b) | 3 | 4 | 1 | 2 |
| (c) | 2 | 4 | 1 | 3 |
| (d) | 3 | 1 | 4 | 2 |

62. 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 |

63. Identify the element having zero valency

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

64. 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

65. 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

66. Combination of one volume of nitrogen with three volumes of hydrogen produces

- (a) one volume of ammonia
- (b) two volumes of ammonia
- (c) three volumes of ammonia
- (d) one and a half volumes of ammonia

67. Consider the following statements about cactus :

- 1. The leaves are reduced to spines.
- 2. The stem does the photosynthesis.

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

68. In which one of the following, methanogens, i.e., methane producing bacteria are *not* present ?

- (a) Rumen of cattle
- (b) Aerobic environment
- (c) Anaerobic sludge
- (d) Excreta of cattle

69. Malarial parasite is a

- (a) bacteria
- (b) protozoa
- (c) virus
- (d) fungus

70. With reference to biodiversity, which of the following statements is/are correct ?

1. Species richness and high degree of endemism are important criteria for identifying biodiversity hot spots.
2. Species diversity is highest in the tropics and decreases down the poles.
3. Biodiversity conservation may be *in situ* as well as *ex situ*.

Select the correct answer using the code given below :

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

71. It is difficult to kill viruses because they

- (a) consist of tough protein coat
- (b) are very small in size
- (c) lack cellular structure
- (d) spend a lot of time inside the host's cells

72. When a ray of light enters a glass slab, then

- (a) only the frequency changes
- (b) frequency and velocity change
- (c) frequency does not change
- (d) frequency and wavelength change

73. 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

- (a) 5.14 s
- (b) 3.57 s
- (c) 2.57 s
- (d) 1.29 s

74. One kilowatt hour is equal to

- (a) 36×10^3 joule
- (b) 36×10^5 joule
- (c) 10^3 joule
- (d) 10^5 joule

75. 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

76. Pressure is a scalar quantity because

- (a) it is the ratio of force to area and both force and area are vectors
- (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

77. A person is unable to read a newspaper without his glasses. He is most probably suffering from
- myopia
 - presbyopia
 - astigmatism
 - hypermetropia
78. The free fall acceleration g increases as one proceeds, at sea level, from the equator toward either pole. The reason is
- Earth is a sphere with same density everywhere
 - Earth is a sphere with different density at the polar regions than in the equatorial regions
 - Earth is approximately an ellipsoid having its equatorial radius greater than its polar radius by 21 km
 - Earth is approximately an ellipsoid having its equatorial radius smaller than its polar radius by 21 km
79. Which one of the following statements is correct ?
- The measurement of mass taken by a spring weighing balance is correct at the place where the spring balance is calibrated for
 - The measurement of mass taken by a spring weighing balance is correct at all places
 - 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
 - A spring balance cannot be used to measure mass at any place
80. Which one of the following is *not* a contact force ?
- Push force
 - Gravitational force
 - Frictional force
 - Strain force
81. 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
- speed of 1 km/s
 - acceleration of 1 m/s²
 - speed of 1 m/s
 - acceleration of 1 km/s²
82. 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

83. Which of the following are the features of the ideology of utilitarianism ?

1. Utilitarians believed that all value derives from land
2. The most celebrated spokesmen of utilitarianism were Jeremy Bentham and John Stuart Mill
3. Utilitarians were advocates of the idea that India could be ruled through indigenous laws and customs
4. 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 :

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

84. Who among the following invented the powerloom that revolutionized the cotton textile industry ?

- (a) Edmund Cartwright
- (b) Samuel Crompton
- (c) Richard Arkwright
- (d) James Hargreaves

85. Subsidiary Alliance was a system devised by

- (a) Lord Wellesley
- (b) Lord Dalhousie
- (c) Lord Canning
- (d) Lord Ripon

86. Consider the following statements :

1. Periplus is a Greek word meaning sailing around.
2. Erythraean was the Greek name for the Mediterranean Sea.

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

87. Who among the following was defeated by Saina Nehwal to win the women's title of the Australian Open Super Series Badminton Tournament, 2016 ?

- (a) Sun Yu
- (b) Carolina Marin
- (c) Wang Yihan
- (d) Sung Ji Hyun

88. 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 2013. 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

89. Achyut Lahkar, who died recently, was a

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

90. 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

91. 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

92. 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

93. 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

94. 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

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

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

96. 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

97. 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

98. The LPG cooking gas contains propane and butane as the constituents. A sulfur containing compound is added to the LPG, because
- it lowers the cost of production
 - it enhances the efficiency of LPG
 - it facilitates easy detection of leakage of the gas
 - it assists in liquefying hydrocarbons
99. The genetic material of bacteria is found in
- nucleus
 - cytoplasm
 - cell membrane
 - ribosome
100. 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
- class
 - order
 - species
 - genus
101. A plant having yellow leaves with dead spots has the deficiency of
- Potassium
 - Magnesium
 - Nitrate
 - Phosphate
102. Fluoride toothpaste is sometimes recommended because fluoride
- prevents plaque formation
 - hardens the enamel of the tooth
 - kills pathogenic bacteria
 - prevents tooth ache
103. Along a streamline flow of fluid
- the velocity of all fluid particles at a given instant is constant
 - the speed of a fluid particle remains constant
 - the velocity of all fluid particles crossing a given position is constant
 - the velocity of a fluid particle remains constant
104. How is the kinetic energy of a moving object affected if the net work done on it is positive ?
- Decreases
 - Increases
 - Remains constant
 - Becomes zero
105. A particle is executing simple harmonic motion. Which one of the following statements about the acceleration of the oscillating particle is true ?
- It is always in the opposite direction to velocity
 - It is proportional to the frequency of oscillation
 - It is minimum when the speed is maximum
 - It decreases as the potential energy increases

106. 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) $a_x = - 3x$

107. 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 , the curve so obtained is

- (a) straight line
- (b) circle
- (c) parabola
- (d) hyperbola

108. 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

109. Which one of the following statements is *not* correct ?

- (a) Pitch of a sound is its characteristic by which we can generally differentiate between a male voice and a female voice
- (b) The loudness of sound is related to its frequency
- (c) A musical sound has certain well defined frequencies which are generally harmonics of a fundamental frequency
- (d) The timbre of a particular musical sound is related to the waveform of the sound wave

110. 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

- (a) $\frac{2\pi}{\sqrt{3}}$
- (b) $\frac{\sqrt{3}}{2\pi}$
- (c) $\frac{\sqrt{3}}{\pi}$
- (d) $\frac{1}{2\pi\sqrt{3}}$

111. 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

112. 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

113. 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) $3/x$

114. 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

115. 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 4
- (b) 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

116. 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

117. 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

118. 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

119. Which one of the following organizations was started by Jyotirao Phule in 1873 ?

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

120. 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

121. 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

122. 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

123. 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

124. 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) 1, 2 and 3
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1 only

125. Which country won the Thomas Cup Badminton Championship, 2016 ?

- (a) Indonesia
- (b) Denmark
- (c) China
- (d) Malaysia

126. 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. Krishnapattam	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

127. The world's largest biomass cookstove system for cooking in community kitchen has been installed at

- (a) Tirupati
- (b) Amritsar
- (c) Shirdi
- (d) Udupi

128. 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

129. 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

130. 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

131. 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 and area 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

132. 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 3 s at a height of 30.2 m from the ground
- (b) The balls will collide after 2 s at a height of 20.1 m from the ground
- (c) The balls will collide after 1 s at a height of 15.1 m from the ground
- (d) The balls will collide after 5 s at a height of 20 m from the ground

133. The setting time of cement is lowered by adding

- (a) oxides of aluminium
- (b) gypsum
- (c) oxides of magnesium
- (d) silica

134. Emulsion is known as a

- (a) colloidal solution of substances having different physical states
- (b) true solution
- (c) distillation mixture for making alcohols
- (d) colloidal solution of two liquids

135. If one mixes up ashes with animal fat, the substance received in the crude form is called

- (a) Pheromone
- (b) Soap
- (c) Cement
- (d) Concrete

136. Which of the following statements with regard to coverage rate of Aadhar cards during 2015 is/are correct ?

1. The coverage rate of Aadhar cards in western India is quite high and it is above 90 per cent in Gujarat
2. 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
3. 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

137. 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

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

List I
(Geomorphic
Agent)

List II
(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 |

139. 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

140. 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

141. Which one of the following gases gives acidic solution on dissolving in water ?

- (a) Hydrogen
- (b) Carbondioxide
- (c) Nitrogen
- (d) Oxygen

142. 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

143. 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

144. Who are Bhawana Kanth, Avani Chaturvedi and Mohana Singh ?

- (a) Sprinters
- (b) Rock climbers
- (c) Fighter pilots
- (d) Mountaineers

145. 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

146. 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

147. 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

148. Which one of the following powers of the Prime Minister of India is codified in the Constitution of India itself ?

- (a) The power of advising the President as regards the appointment of other Ministers
- (b) The power to allocate business amongst the Ministers
- (c) The power to summon the meeting of the Cabinet
- (d) The power to transfer a Minister from one Department to another

149. The cylindrical stone seals were used in which civilization ?

- (a) Harappan
- (b) Egyptian
- (c) Roman
- (d) Mesopotamian

150. Which of the following statements with regards to the Civil Disobedience movement is/are correct ?

- 1. The movement received massive response from business groups and peasantry
- 2. The movement coincided with large scale labour upsurge in Maharashtra
- 3. The movement was marked by the mass participation of lawyers and students

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 and 3