

PART - A
SELECTING WORDS

Directions for the following 10 (ten) items:

Each of the following items in this section has a sentence with a blank space and four words or groups of words given after the sentence. Select whichever word or group of words you consider most appropriate for the blank space and indicate your response on the Answer Sheet accordingly.

1. I ____ you to be at the party this evening.
(a) look forward to (b) hope
(c) expect (d) think
2. When I met John yesterday, it was the first time I ____ him since Christmas.
(a) saw (b) have seen
(c) had seen (d) have been seeing
3. He ____ to listen to my arguments and walked away.
(a) denied (b) disliked
(c) prevented (d) refused
4. The flow of blood was so ____ that the patient died.
(a) intense (b) adequate
(c) profuse (d) extensive
5. You have never ____ me about your experiences in America.
(a) said (b) told
(c) explained (d) spoken
6. I always felt hungry ____ I heard the dinner bell.
(a) as much as (b) as well as
(c) as soon as (d) as close as
7. Although they took every precaution, they could not ____ the accident.
(a) defer (b) allow
(c) avoid (d) block
8. The ambitious nobleman ____ to marry the king's daughter.
(a) transpired (b) perspired
(c) aspired (d) expired
9. The dictator of that country was a monster of wickedness, insatiable in his ____ for blood and plunder.
(a) idea (b) vision
(c) lust (d) intention
10. Please don't give me any more, I have had ____
(a) few (b) too little
(c) little (d) enough

ANTONYMS

Directions for the following 5 (five) items:

In this section, each item consists of a sentence with a word underlined and is followed by four words. Select the word that is most opposite in meaning to the underlined word and indicate your response in the Answer Sheet accordingly.

11. My first lecture in the classroom was a fiasco.
(a) success (b) joy
(c) fun (d) disaster

12. It was indeed arduous to cross streets in New York.
(a) pleasant (b) effortless
(c) interesting (d) risky
13. Unlike his brother, he is affable.
(a) reserved (b) gullible
(c) irritable (d) lovable
14. The birth of his child decidedly proved to be an auspicious event in his life.
(a) precious (b) ominous
(c) useless (d) unforgettable
15. The witness corroborated word for word the statement of the victim.
(a) accepted (b) confirmed
(c) denied (d) repeated

SYNONYMS

Directions for the following 5 (five) items:

In this section, each item consists of a sentence with a word underlined and is followed by four words or groups of words. Select the word or group of words that is most similar in meaning to the underlined word and indicate your response in the Answer Sheet accordingly.

16. It is unwise to sever diplomatic relations with a neighbouring country over small matters.
(a) engage (b) estrange
(c) cut off (d) twist
17. Bad tendencies are to be countered by good ones until all that is evil disappears.
(a) opposed (b) balanced
(c) reduced (d) bypassed
18. The police fired indiscriminately at the crowd, killing many innocent women and children.
(a) continuously (b) without distinguishing
(c) foolishly (d) rapidly
19. Businessmen who lack acumen cannot be expected to be very successful.
(a) fairness (b) sharpness
(c) boldness (d) righteousness
20. His candid opinions have won him many friends.
(a) kind (b) courteous
(c) generous (d) frank

SENTENCE IMPROVEMENT

Directions for the following 10 (ten) items:

In this section, 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).

21. I disliked him not so much for his meanness but for his dishonesty.
(a) as for (b) but because
(c) but due to (d) No improvement
22. He preferred death rather than imprisonment.
(a) for (b) to
(c) than (d) No improvement

23. They kept the idea secretly.
 (a) secretive (b) secret
 (c) secretively (d) No improvement
24. He ought not to tell me your secret, but he did.
 (a) telling (b) have told
 (c) having told (d) No improvement
25. If I don't know the meaning of a word, I look it after in the dictionary.
 (a) look it out (b) look it for
 (c) look it up (d) No improvement
26. Mr. and Mrs. Rao stay in their home every evening.
 (a) at home (b) inside home
 (c) within their home (d) No improvement
27. When we saw him last, he ran to catch a bus.
 (a) has run (b) had run
 (c) was running (d) No improvement
28. She cut a sad figure in her first performance on the stage.
 (a) made a sorry figure (b) cut a sorry face
 (c) cut a sorry figure (d) No improvement
29. Last evening I went to the optician and bought spectacles.
 (a) a spectacle (b) two spectacles
 (c) a pair of spectacles (d) No improvement
30. I would like to avail a fifteen days' holiday this summer.
 (a) to avail of (b) to avail myself of
 (c) to avail myself (d) No improvement

SPOTTING ERRORS

Directions for the following 5 (five) items:

Each item 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).

31.

I can fly if I will be a bird . No error
 (a) (b) (c) (d)

32.

As soon as the train arrived
 (a) (b)
 the passengers entered the compartments No error
 (c) (d)

33.

Never I have seen such a town . No error
 (a) (b) (c) (d)

34.

He goes to his office by bicycle every day No error

- (a) (b) (c) (d)

35.

Far from being appreciated his conduct was discussed

- (a) (b)

and sharply commented No error

- (c) (d)

COMPREHENSION

In this section, you have this short passages. Read the passages and answer the items that follow. You are required to select your answers based on the contents of the passage and opinion of the author only.

Passage - 1

We had just passed Tenali, where I roused myself in order to hear the name of the station. As I was falling asleep again, a violent jolt shot me into the arms of somebody in the seat opposite. The engine with one wheel broken was lying across the track and beside it was the luggage van, likewise, derailed. Groaning, wheezing, gasping, sputtering in its death agony, the engine was like a fallen horse which, snorting, trembling in every limb, its flanks heaving, its chest labouring, seems incapable of making the smallest effort to struggle on to its legs again.

36. The author had roused himself as he wanted to

- (a) get off
(b) meet someone
(c) know the name of the station
(d) keep himself awake

37. The engine stopped because

- (a) the driver had stopped it
(b) one of the wheels was broken
(c) there was a halting place
(d) there was no fuel

38. The engine is compared to a fallen horse because

- (a) it was groaning like a horse
(b) it was lying across the track
(c) it could make no effort to stand upright
(d) it had a broken wheel

In this section, you have this short passages. Read the passages and answer the items that follow. You are required to select your answers based on the contents of the passage and opinion of the author only.

Passage – 2

I was beginning to tire a little now. I had been cutting steps continuously for two hours, and Tenzing, too, was moving very slowly. As I chipped steps around still another corner, I wondered rather dully just how long we could keep it up. Our original zest had now quite gone and it was turning more into a grim struggle. I then realised that the ridge ahead, instead of still monotonously rising, now dropped sharply away, and far below I could see the North Col and Rongbuk glacier. I looked upwards to see a narrow ridge running up to a snowy summit. A few more whacks of the ice-axe in the firm snow and we stood on top.

39. Which of the following is the most appropriate description of the area in which the narrator had been moving?

- (a) A steep rocky slope

- (b) A peak with a flight of steps
(c) A high peak covered with snow
(d) A long ridge

40. 'I had been cutting steps continuously for two hours' suggests that

- (a) the climber was unskilled in the art of making steps
(b) he had to cut the steps out of snow before climbing up which was necessarily a slow process
(c) the slowness was caused by the fact that as soon as he cut the steps they were again covered with snow
(d) he had to work suspended from a ledge

41. 'It was turning more into a grim struggle' would mean

- (a) that after the long exertion he was feeling so weak that any further climbing meant a hard struggle with the forces of nature
(b) that Tenzing was making the task more difficult
(c) that strong cold wind was pushing him down from above and that he had to struggle with the forces of nature
(d) that he was in a mood to give up ultimately

ORDERING OF WORDS IN A SENTENCE

Directions for the following 9 (nine) 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 re-arrange the jumbled parts of the sentence and mark your response accordingly.

42.

Farm workers spend outdoors most of their time

P **Q** **R** **S**

The proper sequence should be

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

43.

He shuffled the papers in a drawer together

P **Q** **R** **S**

The proper sequence should be

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

44.

Do you think will this soap shrink woollen clothes

P **Q** **R** **S**

The proper sequence should be

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

45.

We advised the hijackers to surrender to the police themselves

P **Q** **R** **S**

The proper sequence should be

- (a) PQRS (b) PRQS
(c) P Q.S R (d) R P Q S

46.

Sports cars appeal to some motorists only

P Q R

with noisy exhausts

S

The proper sequence should be

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

47.

He almost planned the entire strategy of operation

P Q R

single – handed

S

The proper sequence should be

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

48.

She has more intelligence

P Q R

than we suspected her to possess

S

The proper sequence should be

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

49.

They should implant in the minds of young children sound principles

P Q R S

The proper sequence should be

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

50.

When I was a student I learnt swimming at the age of 15

P Q

of class X in a government school

R S

The proper sequence should be

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

PART-B

51. Which one of the following devices changes low voltage alternating current to high voltage alternating current and vice versa?

- (a) Generator (b) Motor
(c) Transformer (d) Vibrator

52. An optical illusion which occurs mainly in deserts during hot summer is based on the principle of

- (a) Reflection (b) Interference
(c) Dispersion (d) Total internal reflection

53. At which place Earth's magnetic field becomes horizontal?

- (a) Magnetic meridian (b) Magnetic equator
(c) Geographical pole (d) Tropic of Cancer

54. The speed of a car travelling on a straight road is listed below at successive intervals of 1 s :

Time (s)	0	1	2	3	4
Speed (m/s)	0	2	4	6	8

Which of the following is/are correct?
The car travels

- (1) with a uniform acceleration of 2 m/s^2 .
(2) 16 m in 4 s.
(3) with an average speed of 4 m/s.

Select the correct answer using the code given below:

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

55. The speed of a body that has Mach number more than 1 is

- (a) supersonic (b) subsonic
(c) 300 m/s (d) about 10 m/s

56. Molecules of which of the following has cage like structure?

- (1) Diamond (2) Graphite
(3) Fullerenes

Select the correct answer using the code given below:

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

57. Temporary hardness in water is due to which one of the following of Calcium and Magnesium?

- (a) Hydrogen carbonates (b) Carbonates
(c) Chlorides (d) Sulphates

58. Stung by hairs of nettle leaves causes burning pain. This is due to the injection of

- (a) Acetic acid (b) Methanoic acid
(c) Sulphuric acid (d) Hydrochloric acid

59. Which one of the following elements is least reactive with water?

- (a) Lithium (b) Sodium
(c) Potassium (d) Cesium

60. Rutherford's alpha-particle scattering experiment was responsible for the discovery of
 (a) Electron (b) Proton
 (c) Nucleus (d) Helium
61. Glass is a
 (a) liquid
 (b) colloid.
 (c) non-crystalline amorphous solid
 (d) crystalline solid
62. Cell wall of any fungus is different from plants in having
 (a) cellulose (b) chitin
 (c) cholesterol (d) glycogen
63. Sleeping sickness is a parasitic disease of humans and other animals. It is caused by
 (a) Histomonas (b) Trypanosoma
 (c) Angomonas (d) Naegleria
64. Which one of the following agencies enforces the laws on food security in India?
 (a) FDA (b) WHO
 (c) FSSAI (d) FAO
65. Dengue virus causes high fever, rashes and reduces the number of a particular type of blood cells. Those blood cells are
 (a) Monocytes (b) Platelets
 (c) Eosinophils (d) Neutrophils
66. Kidney secretes an enzyme, which changes plasma protein angiotensinogen into angiotensin. The enzyme is
 (a) Renin (b) Nitrogenase
 (c) Hydrolase (d) Mono-oxygenase
67. Red blood cells (RBCs) have
 (a) no nucleus, no mitochondria and no endoplasmic reticulum
 (b) nucleus, mitochondria and endoplasmic reticulum
 (c) nucleus, mitochondria but no endoplasmic reticulum
 (d) no mitochondria but endoplasmic reticulum is present
68. According to the Census 2011, the density of population in which one among the following States is the lowest?
 (a) Sikkim (b) Nagaland
 (c) Manipur (d) Mizoram
69. Headquarters of the World Meteorological Organization is located in
 (a) Washington (b) Geneva
 (c) Moscow (d) London
70. Match List I with List II and select the correct answer using the code given below the Lists :

LIST -I (INDUSTRY)	LIST-II (PLACE)
(A) Petrochemical	(1) Coimbatore
(B) Aircraft	(2) Pinjore
(C) Machine tools	(3) Bengaluru

(D) Cotton textiles	(4) Bongaigaon
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Code:

A B C D

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

71. Consider the following statements pertaining to Coffee plantation in India:

- (1) Need warm and moist climate with a spell of dry weather during the ripening period
- (2) Rolling fields having good drainage
- (3) Strong sunshine over hilly slopes exceeding temperature 35°C
- (4) Karnataka is the leading producer in India

Which of the statements given above are correct?

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

72. Dr. Urjit Patel, who has been appointed recently as Governor of Reserve Bank of India, was holding which position immediately prior to this appointment?

- (a) Chief Economist, IMF
 (b) Deputy Governor, Reserve Bank of India
 (c) Chief Economic Advisor to the Government of India
 (d) Professor of Economics at Harvard University

73. Who among the following personalities is NOT a Governor of any Indian State?

- (a) Najma Heptulla (b) Ram Nath Kovind
 (c) Acharya Dev Vrat (d) Arvind Subramaniam

74. Which of the following cricket teams was defeated by India to lift the Women's Twenty 20 Asia Cup 2016?

- (a) Bangladesh (b) Sri Lanka
 (c) Pakistan (d) Afghanistan

75. Which one of the following was the venue of 2nd BRICS Youth Summit of the Ministers, Officials and Youth Delegations?

- (a) New Delhi (b) Mumbai
 (c) Shillong (d) Guwahati

76. Which one among the following States of India has recently proposed to frame the first Internal Security Act to deal with the challenges of terrorism, insurgency, communalism and caste violence?

- (a) Maharashtra (b) Gujarat
 (c) Uttar Pradesh (d) Chhattisgarh

77. Who among the following personalities is NOT a Governor of any Indian State?

- (a) Najma Heptulla (b) Ram Nath Kovind
 (c) Acharya Dev Vrat (d) Arvind Subramaniam

78. Surge pricing takes place when a service provider

- (a) raises the price of its product or service as demand outstrips supply
 (b) follows preset prices immune to demand and supply dynamics
 (c) fixes a minimum price for its services
 (d) fixes an average price on the basis of transactions carried over a day

79. By fulfilling which of the following conditions can a political party claim the status of a national party?

- (1) It secures at least six per cent (6%) of the valid votes polled in any four or more states, at a general election to the House of the People or, to the State Legislative Assembly
- (2) It wins at least four seats in the House of the People from any State or States or wins at least two per cent (2%) seats in the House of the People (i.e., 11 seats in the existing House having 543 members), and these members are elected from at least three different States
- (3) The party in question has got recognition as a state party in at least two states
- (4) It must have its headquarters in New Delhi

Select the correct answer using the code given below:

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

80. In its emphasis on enhancing human capabilities, which one among the following does NOT figure in the Twelfth Five-Year Plan?

- (a) Life and longevity
- (b) Education
- (c) Delivery of Public Service
- (d) Skill development

81. Which one of the following is NOT a target of the 12th Five-Year Plan?

- (a) Real GDP Growth Rate of 8 per cent
- (b) Agriculture Growth Rate of 5 per cent
- (c) Manufacturing Growth Rate of 10 per cent
- (d) Increase in green cover by 1 million hectare every year during the Plan period

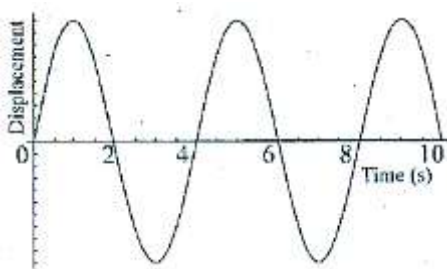
82. Which one of the following statements is NOT correct?

- (a) In the conduction mode of transference of heat, the molecules of solid pass heat from one molecule to another without moving from their positions
- (b) The amount of heat required to raise the temperature of a substance is called its specific heat capacity
- (c) The process of heat transfer in liquids and gases is through convection mode
- (d) The process of heat transfer from a body at higher temperature to a body at lower temperature without heating the space between them is known as radiation

83. The amount of heat required to change a liquid to gaseous state without any change in temperature is known as

- (a) specific heat capacity
- (b) mechanical equivalent of heat
- (c) latent heat of vaporization
- (d) quenching

84. The following figure shows displacement versus time curve for a particle executing simple harmonic motion:



Which one of the following statements is correct?

- (a) Phase of the oscillating particle is same at $t = 1$ s and $t = 3$ s

- (b) Phase of the oscillating particle is same at $t = 2$ s and $t = 8$ s
(c) Phase of the oscillating particle is same at $t = 3$ s and $t = 7$ s
(d) Phase of the oscillating particle is same at $t = 4$ s and $t = 10$ s

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

LIST -I (Disease)	LIST-II (Remedy)
(A) Hypermetropia	(1) Concave lens
(B) Presbyopia	(2) Bifocal lens
(C) Myopia	(3) Surgery
(D) Cataract	(4) Convex lens

Code:

- | | | | | |
|-----|----------|----------|----------|----------|
| | A | B | C | D |
| (a) | 4 | 2 | 1 | 3 |
| (b) | 4 | 1 | 2 | 3 |
| (c) | 3 | 1 | 2 | 4 |
| (d) | 3 | 2 | 1 | 4 |
86. A circular coil of single turn has a resistance of 20Ω . Which one of the following is the correct value for the resistance between the ends of any diameter of the coil?
(a) 5Ω (b) 10Ω
(c) 20Ω (d) 40Ω
87. In a solenoid, the current flowing through the wire is I and number of turns per unit length is n . This gives a magnetic field B inside the solenoid. If number of turn per unit length is increased to $2n$, what will be the value of magnetic field in the solenoid?
(a) B (b) $2B$
(c) $B/2$ (d) $B/4$
88. Which one of the following statements is correct about the magnification of an optical microscope?
(a) Magnification increases with the increase in focal length of eyepiece
(b) Magnification increases with the increase in focal length of objective
(c) Magnification does not depend upon the focal length of eyepiece
(d) Magnification decreases with the increase in focal length of eyepiece
89. A homogeneous mixture contains two liquids. How are they separated?
(a) By filtration (b) By evaporation
(c) By distillation (d) By condensation

90. Which one of the following elements forms highest number of compounds?

- (a) Oxygen (b) Hydrogen
(c) Chlorine (d) Carbon

91. Which one of the following elements corrodes rapidly?

- (a) Aluminium (b) Iron
(c) Zinc (d) Silver

92. 20 g of common salt is dissolved in 180 g of water. What is the mass percentage of the salt in the solution?

- (a) 5% (b) 9%
(c) 10% (d) 15%

93. The valency of an element depends upon the

- (a) total number of protons in an atom
(b) mass number of an atom
(c) total number of neutrons in an atom
(d) total number of electrons in the outer most shell of an atom

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

LIST-I

LIST -II

(NOBAL)

GAS (USE)

(A) Argon

(1) In lights for advertising display

(B) Neon

(2) Airport landing lights and in light houses

(C) Krypton

(3) Light in photographer's flash gun

(D) Xenon

(4) In tungsten filament to last longer

Code:

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

95. Colour vision in human eyes is the function of photoreceptor cells named

- (a) Rods (b) Cones
(c) Blind spot (d) Fovea

96. Which one of the following statements is NOT correct?

- (a) All proteins are enzymes
(b) Mostly enzymes are proteins
(c) All fats are energy rich compounds
(d) Glucose is a common carbohydrate

97. Sugarcane is one of the important cash crops in India. It is grown to obtain

- (a) Starch (b) Glucose
(c) Fructose (d) Sucrose

98. The colourful part of the Sunflower or Marigold plant is

- (a) Flower (b) Inflorescence
(c) Fruit (d) Seed

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

List I (Mineral)	List II Leading State)
(A) Manganese	(1) Uttarakhand
(B) Gypsum	(2) Karnataka
(C) Limestone	(3) Rajasthan
(D) Magnesite	(4) Odisha

Code:

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

100. Which one among the following is the correct order of tiger reserves situated from North to South in India?

- (a) Corbett - Simlipal - Sariska Periyar
- (b) Periyar - Sariska - Simlipal Corbett
- (c) Corbett - Sariska - Simlipal Periyar
- (d) Periyar - Simlipal - Sariska Corbett

101. Which of the following are correct with regard to Indian Monsoonal Rainfall?

- (1) Largely governed by the topographical features
- (2) Regional and seasonal variation in the distribution of rainfall
- (3) Heavy downpour resulting in considerable runoff
- (4) Beginning and end of rain is regular and on time

Select the correct answer using the code given below:

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

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

List I (Type of climate)	List II (State)
(A) Monsoon with Short Dry Season (Amw)	(1) Uttar Pradesh and Bihar
(B) Cold Humid Winter with Short Summer (Dfc)	(2) Tamil Nadu Coast
(C) Monsoon with Dry Winter (Cwg)	(3) Arunachal Pradesh
(D) Monsoon with Dry Summer (As)	(4) Kerala and Karnataka Coast

Code:

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

103. Which one of the following Himalayan rivers does NOT originate from across the Himalayas?

- (a) Indus (b) Satluj
(c) Ganga (d) Brahmaputra

104. The Headquarters of Eastern Railway Zone of Indian Railway is located at

- (a) Bhubaneswar (b) Kolkata
(c) Hajipur (d) Guwahati

105. Which one among the following countries is the largest trading partner of India in external trade for the year 2015-2016?

- (a) United States of America
(b) United Kingdom
(c) United Arab Emirates
(d) China

106. The radii of curvature of the faces of a double convex lens are 10 cm and 20 cm. The refractive index of the glass is 1.5. What is the power of this lens (in units of dioptre)?

- (a) +7.5D (b) -7.5D
(c) +2.5D (d) +5.0D

107. The time period of a simple pendulum made using a thin copper wire of length L is T . Suppose the temperature of the room in which this simple pendulum is placed increases by 30°C , what will be the effect on the time period of the pendulum?

- (a) T will increase slightly
(b) T will remain the same
(c) T will decrease slightly
(d) T will become more than 2 times

108. Which one of the following physical quantity has the same unit as that of pressure?

- (a) Angular momentum (b) Stress
(c) Strain (d) Work

109. Which one of the following statements is correct with regard to the material of electrical insulators?

- (a) They contain no electrons
(b) Electrons do not flow easily through them
(c) They are crystals
(d) They have more number of electrons than the protons on their surface

110. Which one of the following physical quantities does NOT affect the resistance of a cylindrical resistor?

- (a) The current through it
(b) Its length
(c) The resistivity of the material used in the resistor
(d) The area of cross-section of the cylinder

111. Which one of the following statements regarding King Krishnadevaraya is NOT correct?

- (a) He was a great scholar of Telugu and Sanskrit
(b) Foreign travellers Paes and Nuniz visited his court
(c) Barbosa praised him for the great justice and equity prevailing in his empire
(d) He wrote his magnum opus Amuktamalyada in Sanskrit

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

List I (Amendment to the Constitution of India)	List II (Subject)
(A) 52nd Amendment Act, 1985	(1) Reduction of voting age from 21 to 18
(B) 73rd Amendment Act, 1992	(2) Right to Education

(C) 61 st Amendment Act, 1988	(3) Panchayati Raj
(D) 86th Amendment Act, 2006	(4) Disqualifica- tion on grounds of

Code:

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

113. Which one of the following was NOT a cause of the Revolt of 1857 ?

- (a) The rumour that the British had mixed the bone dust of cows and pigs into the flour being sold in the market
- (b) The prophecy that British rule would come to an end on the centenary of the Battle of Plassey on 23rd June, 1857
- (c) Popular discontent with British rule
- (d) The prophecy that the end of British rule would lead to the end of the Kali Yuga and the return of Ram Rajya

114. Which one of the following was NOT a feature of the Subsidiary Alliance of Lord Wellesley?

- (a) The British were responsible for protecting the ally from any external threats
- (b) All internal threats were to be handled by the ally alone, with no help from the British
- (c) The ally was to provide resources for maintaining a British armed contingent stationed in its territory
- (d) The ally could not enter into any agreement with other rulers without the permission of the British

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

LIST-I

(PLACE)

- (A) Lakwa
- (B) Malanjkhanda
- (C) Kalakot
- (D) Zawar

LIST

(MINERAL)

- (1) Copper
- (2) Petroleum
- (3) Zinc
- (4) Coal

Code:

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

116. Which of the following are the major coral reef areas of India?

- (1) Gulf of Kachchh
- (2) Gulf of Mannar
- (3) Lakshadweep

(4) Andaman and Nicobar Islands

Select the correct answer using the code given below:

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

117. Which of the following regions is/are NOT known for cotton-textile industry?

(1) Mumbai-Pune region

(2) Madurai-Coimbatore region

(3) Dhanbad-Jamshedpur region

(4) Indore-Ujjain region

Select the correct answer using the code given below:

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

118. Which one of the following States does NOT have the Headquarters of any Railway Zone?

- (a) Jharkhand (b) Chhattisgarh
(c) Odisha (d) Bihar

119. Suppose a rod is given a negative charge by rubbing it with wool. Which one of the following statements is correct in this case?

- (a) The positive charges are transferred from rod to wool
(b) The positive charges are transferred from wool to rod
(c) The negative charges are transferred from rod to wool
(d) The negative charges are transferred from wool to rod

120. Which one of the following is the correct relation between frequency f and angular frequency ω ?

- (a) $f = \pi\omega$ (b) $\omega = 2\pi f$
(c) $f = 2\omega/\pi$ (d) $f = 2\pi\omega$.

121. A Kelvin thermometer and a Fahrenheit thermometer both give the same reading for a certain sample. What would be the corresponding reading in a Celsius thermometer?

- (a) 574 (b) 301
(c) 273 (d) 232

122. If the potential difference applied to an X-ray tube is doubled while keeping the separation between the filament and the target as same, what will happen to the cutoff wavelength?

- (a) Will remain same
(b) Will be doubled
(c) Will be halved
(d) Will be four times of the original wavelength

123. Which one of the following statements is true for the relation $F = \frac{Gm_1m_2}{r^2}$? (All symbols have their usual meanings)

- (a) The quantity G depends on the local value of g , acceleration due to gravity
(b) The quantity G is greatest at the surface of the Earth
(c) The quantity G is used only when earth is one of the two masses
(d) The quantity G is a universal constant

124. Why is it difficult to measure the coefficient of expansion of a liquid than solid?

- (a) Liquids tend to evaporate at all temperatures
(b) Liquids conduct more heat
(c) Liquids expand too much when heated
(d) Their containers also expand when heated

125. **Radon is**
(a) an inert gas (b) an artificial fibre
(c) an explosive (d) a metal
126. **The chemical name of baking soda is**
(a) Na_2CO_3 (b) NaHCO_3
(c) CaCO_3 (d) NaOH
127. **Which one of the following elements is used in pencil-lead?**
(a) Zinc (b) Lead
(c) Carbon (Graphite) (d) Tin
128. **Who among the following is one of the authors of the book "Philosophy of the Bomb?"**
(a) Bhagat Singh (b) Jawaharlal Nehru
(c) Surya Sen (d) Yashpal
129. **Which of the following statements about the Chittagong group is NOT correct?**
(a) Its membership included a large number of youth including Ganesh Ghosh, Lokenath Baul and Anant Singh
(b) Its leader Surya Sen had been a lawyer in Dhaka before joining the group
(c) Surya Sen and his group were closely associated with Congress work in Chittagong
(d) This group had prepared an action plan to occupy the armouries in Chittagong
130. **Which one of the following was a significant feature of the Quit India Movement?**
(a) Women did not play an important role in the movement
(b) Nasik in Maharashtra was an important regional base during the movement
(c) It was marked by anti-zamindar violence
(d) It was marked by the emergence of parallel governments in different parts of India
131. **Which one of the following characteristics does NOT describe the Khilafat movement?**
(a) Mahatma Gandhi sought to link it to the Non-Cooperation movement
(b) It was not supported by the Congress
(c) It demanded that the Turkish Sultan must retain control over Muslim sacred spaces in the erstwhile Ottoman empire
(d) It was led by Muhammad Ali and Shaukat Ali
132. **Which one of the following was NOT a feature of railways in colonial India?**
(a) The main purpose of the setting up of railways in India was to serve the interest of the empire
(b) British capital investments were invited with 15% guaranteed interest to be paid if necessary from Indian revenues.
(c) The construction work disturbed ecology
(d) The construction of the railways was planned in such a way that it connected the internal markets with the ports, but provided no interconnection between internal market cities
133. **Which colonial administrator made the following declaration about the partition of Bengal in 1904?**
"Bengal united is a power. Bengal divided will pull in different ways. That is perfectly true and one of the merits of the scheme"
(a) Lord Curzon (b) H. H. Risley
(c) Lord Minto (d) Sir Lancelot Hare
134. **Who launched the Bardoli Satyagraha on 4th February, 1928?**
(a) Mahatma Gandhi (b) Vallabhbhai Patel
(c) Rajendra Prasad (d) Kalyanji Mehta
135. **Which one of the following Princely States did NOT support the Congress during the course of the Civil Disobedience Movement?**
(a) Bhavnagar (b) Mysore
(c) Junagadh (d) Kathiawar
136. **Which one of the following is a feature of thought and philosophy of the Kandukuri Viresalingam?**
(a) He believed that science and morality were unconnected to truth

- (b) He believed in universal education
- (c) He believed that language had no role in inculcating morality in students
- (d) He did not attempt to build a national consciousness on a cultural base

137. Name the calligrapher in Akbar's court who was honoured with the title "Zarrin Kalam" or Golden Pen

- (a) Abul Fazl
- (b) Tansen
- (c) Muhammad Husayn
- (d) Muhammad Kasim

138. Which one of the following sections of the Golden Quadrilateral Highway in India is the longest in terms of route distance?

- (a) Delhi – Kolkata (b) Kolkata - Chennai
- (c) Chennai – Mumbai (d) Mumbai - Delhi

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

List I (Classification of resources)	List II (Example)
(A) Basic inexhaustible resource	(1) Hydel power
(B) Conventional non-renewable resource	(2) Coal
(C) Non-conventional renewable resource	(3) Solar energy
(D) Non-conventional non-renewable resource	(4) Natural gas

Code:

A B C D

(a) 3 2 1 4

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

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

LIST- I (Mineral deposit)	LIST-II (State)
(A) Gypsum	(1) Odisha
(B) Graphite	(2) Gujarat
(C) Fluorspar	(3) Arunachal Pradesh
(D) Nickel	(4) Rajasthan

Code:

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

141. Which one of the following pairs of Tribe and State is NOT correctly matched?

- (a) Tharu: Madhya Pradesh
(b) Adi : Arunachal Pradesh
(c) Irula : Kerala
(d) Shaharia : Rajasthan

142. If the absolute refractive indices of glass and water are $\frac{3}{2}$ and $\frac{4}{3}$ respectively, what will be the ratio of velocity of light in glass and water?

- (a) 3: 4 (b) 4: 3
(c) 8: 7 (d) 8: 9

143. A positive charge $+q$ is placed at the centre of a hollow metallic sphere of inner radius a and outer radius b . The electric field at a distance r from the centre is denoted by E . In this regard, which one of the following statements is correct?

- (a) $E = 0$ for $a < r < b$
(b) $E = 0$ for $r < a$
(c) $E = \frac{q}{4\pi\epsilon_0 r}$ for $a < r < b$
(d) $E = \frac{a}{4\pi\epsilon_a a}$ for $r < a$

144. Consider the following Indian States:

- (1) Bihar (2) Rajasthan
(3) Jammu and Kashmir (4) Haryana

Which one of the following is the correct ascending order of the above States on the basis of percentage of State's population to total population of India (based on census 2011)?

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

145. Who among the following was the author of the Badshah Nama?

- (a) Abdul Hamid Lahori (b) Abul Fazl
(c) Shah Jahan (d) Sadullah Khan

146. Which one of the following statements about Fatehpur Sikri is NOT correct?

- (a) It was located on the direct road to Ajmer
(b) Akbar commissioned the building of a marble tomb for Sheikh Salim Chisti next to the Friday mosque at Fatehpur Sikri
(c) The arched gateway or Bulund Darwaza was meant to remind visitors of the Mughal victory in Gujarat
(d) In 1585, the capital of the Mughal emperor shifted from Fatehpur Sikri to Delhi

147. Which one of the following cities hosted the 3rd World Trauma Congress recently?

- (a) New Delhi (b) Dacca
(c) Singapore (d) Bangkok

148. Which one of the following is NOT one of the objectives of Act East Policy?

- (a) To promote economic cooperation, cultural ties and develop strategic relationship with countries in the Asia-Pacific region
(b) To promote peace and amity with the neighbouring countries of Asia
(c) To place emphasis on India-ASEAN cooperation in India's domestic agenda
(d) To provide enhanced connectivity to the North East of India

149. Arrange the following countries in ascending order on the basis of the total medals earned by them in Rio Olympic 2016:

- (1) United States (2) China
(3) Great Britain (4) Russia

Select the correct answer using the code given below:

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

150. Which one of the following is NOT an objective of the National Civil Aviation Policy 2016?

- (a) Establish an integrated eco-system which will lead to significant growth of civil aviation sector
(b) To promote tourism, increase employment and lead to a balanced regional growth
(c) Ensure safety, security and sustainability of all sectors through the use of technology
(d) Enhance regional connectivity through fiscal support and infrastructure development