



**PART-A**

**FILL IN THE BLANK**

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

- The tired traveller \_\_\_\_\_ on in the hope of finding some resting place.  
a. strolled                      b. scurried  
c. paraded                      d. plodded
- The car was damaged beyond repair in the \_\_\_\_\_ accident.  
a. outrageous                  b. ghastly  
c. nasty                          d. heinous
- They gave a \_\_\_\_\_ dinner to celebrate the occasion, which impressed every guest.  
a. austere                        b. public  
c. sumptuous                    d. summary
- Once the \_\_\_\_\_ manuscript is received by the publishers, it is typed in double space.  
a. total                            b. full  
c. complete                      d. filled
- I am used to \_\_\_\_\_ in queues.  
a. stand                          b. standing  
c. stand up                        d. standing still

**ORDERING OF SENTENCES**

**Directions :** In this section each item consists of six sentences of a passage. The first and sixth sentences are given in the beginning as S1 and S6. The middle four sentences in each have been jumbled up and labelled P, Q, R and S. You are required to find the proper sequence of the four sentences and mark your response accordingly on the Answer Sheet.

- S1 : The Subsidiary Alliance system was extremely advantageous to the British.  
S6 : They controlled the defence and the foreign relations of the protected ally.  
P : They could now maintain a large army at the cost of Indian states  
Q : if any war occurred in the territories  
R : either of the-British ally or of the Britishers  
S : This enabled them to fight wars far away from their own territories  
The proper sequence should be  
a. P Q R S                      b. P S Q R  
c. Q R P S                      d. S R P Q

- S1 : In reality, by signing a Subsidiary Alliance, an Indian state virtually signed away its independence.  
S6 : In fact, the Indian ruler lost all vestiges of sovereignty in external matters.  
P : of maintaining diplomatic relations  
Q : It lost the right of self defence  
R : with its neighbours  
S : and of settling its disputes  
The proper sequence should be  
a. P Q R S                      b. R S P Q  
c. Q P S R                      d. Q S R P
- S1 : A mighty popular Revolt broke out in Northern and Central India in 1857.  
S6 : Millions of peasants, artisans and soldiers fought heroically and wrote a glorious chapter.  
P : Sepoys, or the Indian soldiers of the Company's army  
Q : but soon engulfed wide regions and involved the masses  
R : and nearly swept away the British rule  
S : It began with a mutiny of the  
The proper sequence should be  
a. R S P Q                      b. P Q R S  
c. S R P Q                      d. Q R P S
- S1 : The Indian Civil Service gradually developed into one of the most efficient and powerful civil services in the world.  
S6 : though these qualities obviously served British, and not Indian interests.  
P : and often participated in the making of policy independence, integrity and hard work  
R : They developed certain traditions of  
S : Its members exercised vast power  
The proper sequence should be  
a. P Q R S                      b. Q R S P  
c. R S Q P                      d. S P R Q
- S1 : The ruin of Indian handicrafts was reflected in the ruin of the towns and cities which were famous for their manufactures.  
S6 : Centres were developed and laid waste.  
P : Dacca, Surat, Murshidabad and many other rising industrial  
Q : ravages of war and plunder, failed to  
R : survive British conquest  
S : Cities which had withstood the  
The proper sequence should be  
a. P Q R S                      b. S Q R P  
c. S R P Q                      d. Q R S P

## COMPREHENSION

**Directions :** In this section you have few short passages. After each passage, you will find some items based on the passage. First, read a passage and answer the items based on it. You are required to select your answers based on the contents of the passage and opinion of the author only.

### Passage

The rule of the road means that in order that the liberties of all may be preserved, the liberties of everybody must be curtailed. When the policeman, say, at a road-crossing steps into the middle of the road and puts out his hand, he is the symbol not of tyranny but of liberty. You have submitted to a curtailment of private liberty in order that you may enjoy a social order which makes your liberty a reality. We have both liberties to preserve — our individual liberty and our social liberty. That is, we must have a judicious mixture of both. I shall not permit any authority to say that my child must go to this school or that, shall specialize in science or arts. These things are personal. But if I say that my child shall have no education at all, then society will thinly tell me that my child must have education whether I like it or not.

11. According to the author, the "rule of the road" implies
  - a. the rule regulating the traffic on the road
  - b. the principle on which a road is constructed to ensure safe traffic
  - c. unrestricted freedom for all to lead a happy life
  - d. restricted individual freedom to ensure freedom for all
12. The author thinks that when a policeman signals you to stop on a road-crossing, he is
  - a. behaving in a whimsical manner
  - b. interfering with your freedom to use the road
  - c. protecting the liberty of all to use the road
  - d. mischievously creating hurdles in your way from some personal motive
13. The author is of the view that we should
  - a. have absolute individual liberty without any restrictions imposed by the society
  - b. have everything controlled by the society without any kind of individual liberty
  - c. try to strike a sensible balance between our individual liberty and our social liberty
  - d. have more of social liberty than individual liberty

14. The author holds that
  - a. educating or not educating his child is a matter of personal liberty
  - b. educating or not educating his child is also a matter of social liberty
  - c. choosing the school for his child is a matter of social liberty
  - d. choosing the subject of study for his child is a matter of social liberty
15. The most suitable title of the passage would be
  - a. The Policeman at a Road Crossing
  - b. The Laws of the Road
  - c. Importance of Liberty
  - d. Education of Children

### Passage

My most interesting visitor comes at night, when the lights are still burning — a tiny bat who prefers to fly in through the open door, and will use the window only if there is no alternative. His object in entering the house is to snap up the moths that cluster around the lamps. All the bats I have seen fly fairly high, keeping near the ceiling; but this particular bat flies in low, like a dive-bomber, zooming in and out of chair legs and under tables. Once, he passed straight between my legs. Has his radar gone wrong, I wondered, or is he just plain crazy?

16. Consider the following statements :
  1. The tiny bat flew in low like a dive-bomber.
  2. The tiny bat like all bats keeps near the ceiling.
  3. It has lost direction because its radar has gone wrong.
  4. It wants to entertain the author with its skill in flying.

Which of the above statements may be assumed to be true from the information given in the passage ?

  - a. 1 only
  - b. 1 and 3
  - c. 2 and 4
  - d. 3 and 4
17. The bat entered the room
  - a. because there was no alternative
  - b. to eat the moths round the lamps
  - c. as it had gone mad
  - d. as it preferred to fly in through the open door
18. After comparing the habits of the tiny bat with those of other bats, the author was
  - a. sure that this bat had lost its direction
  - b. not sure of its preferences
  - c. surprised to find that it was an expert flier
  - d. unable to give the correct explanation for its behaviour

19. The author calls the tiny bat an "interesting visitor". This means  
 a. the bat visits him at night  
 b. the bat is interested in the moths  
 c. this bat has peculiar qualities  
 d. this bat surprises him by zooming in and out like a dive-bomber
20. What, according to you, can be the most suitable title for the passage?  
 a. Someone visits me  
 b. Night of Mysteries  
 c. My Nocturnal Visitor  
 d. A Funny Visitor

### ANTONYMS

**Directions :** Each item in this section consists of a sentence with an underlined word/words followed by four words. Select the option that is **opposite in meaning** to the underlined word/words and mark your response in your Answer Sheet accordingly.

21. The country's economy must be geared to wartime requirements.  
 a. subordinated to                      b. related to  
 c. adjusted to                              d. unlinked to
22. Why does fire attract insects?  
 a. discharge                              b. destroy  
 c. repel                                      d. remove
23. The party was excellent, and I would like to thank all the people concerned.  
 a. cared                                      b. attentive  
 c. dependable                              d. uninvolved
24. He is very serious by temperament.  
 a. grave                                      b. trivial  
 c. sober                                      d. stupid
25. There are a few miscellaneous items to discuss in this meeting.  
 a. pure                                        b. mixed  
 c. homogenous                              d. discordant
26. Due to the postal strike, the outgoing mail got delayed.  
 a. urgent                                      b. incoming  
 c. ordinary                                  d. speedy
27. He had a fine ear for music.  
 a. small                                        b. close  
 c. coarse                                      d. smooth
28. There is no likeness between him and his brother.  
 a. unlikeliness                              b. unlikelihood  
 c. dissimilarity                              d. disaffinity
29. Cultural diversity in the working place is good for business.  
 a. uniformity                                b. conformity  
 c. identity                                      d. similarity

30. The company was liquidated within five years.  
 a. bankrupt                                b. closed down  
 c. flourishing                              d. privatised

### SYNONYMS

**Directions :** Each item in this section consists of a sentence with an underlined word/words followed by four words. Select the option that is nearest in meaning to the underlined word/words and mark your response in your Answer Sheet accordingly.

32. I do not want you to lead a life of sycophancy as you did during the foreign rule.  
 a. admiration                              b. love  
 c. appreciation                            d. flattery
32. In India, It has become easy to attack cultural artefacts these days.  
 a. beckon                                      b. assault  
 c. belch                                        d. appreciate
33. A local court granted bail to the criminal on Thursday.  
 a. confessed                                b. donated  
 c. allowed                                    d. yielded
34. The judge told that he would analyze the evidence and then deliver the verdict.  
 a. liberate                                    b. surrender  
 c. transfer                                    d. pronounce
35. The growth and development of the peasant movement was indissolubly linked with the national struggle for freedom.  
 a. firmly                                        b. vaguely  
 c. individually                              d. steadily
36. Weather conditions have been improving over the past few days.  
 a. mending                                    b. amending  
 c. becoming better                        d. advancing
37. The confusion on the interlocutor's face was gratifying.  
 a. government officer                      b. party worker  
 c. dialogist                                  d. revolutionary
38. He spends his money lavishly.  
 a. hesitatingly                              b. generously  
 c. foolishly                                    d. carefully
39. The government's new policies will come into force from the next fiscal year.  
 a. calendar                                    b. academic  
 c. financial                                    d. leap
40. Abundant food was available for the soldiers in the mess.  
 a. little                                        b. plentiful  
 c. delicious                                    d. wholesome



56. Which of the following statements about specific heat of the body is / are correct?
1. It depends upon mass and shape of the body
  2. It is independent of mass and shape of the body
  3. It depends only upon the temperature of the body
- Select the correct answer using the code given below:
- a. 1 only                      b. 2 and 3  
c. 1 and 3                     d. 2 only
57. Which one of the following is an example of the force of gravity of the earth acting on a vibrating pendulum bob?
- a. Applied force              b. Frictional force  
c. Restoring force            d. Virtual force
58. Which one of the following statements about the refractive index of a material medium with respect to air is correct?
- a. It can be either positive or negative  
b. It can have zero value  
c. It is unity for all materials  
d. It is always greater than one
59. Which one of the following statements about magnetic field lines is NOT correct?
- a. They can emanate from a point  
b. They do not cross each other  
c. Field lines between two poles cannot be precisely straight lines at the ends  
d. There are no field lines within a bar magnet
50. Two convex lenses with power 2 dioptre are kept in contact with each other. The focal length of the combined lens system is
- a. 0.10 m                      b. 2 m  
c. 4 m                         d. 0.25 m
61. Which one of the following alkali metals has lowest melting point?
- a. Sodium                     b. Potassium  
c. Rubidium                  d. Caesium
62. Which one of the following metals is alloyed with sodium to transfer heat in a nuclear reactor?
- a. Potassium                 b. Calcium  
c. Magnesium                d. Strontium
63. Which one of the following metals is used in the filaments of photo-electric cells that convert light energy into electric energy?
- a. Tungsten                  b. Copper  
c. Rubidium                 d. Aluminium
64. Which of the following statements about Ring of Fire is / are correct?
1. It is a zone of convergence plate boundaries
  2. It is an active seismic and volcanic zone
  3. It is associated with deep trench
- Select the correct answer using the code given below :
- a. 1 and 2 only                b. 2 and 3 only  
c. 1 only                        d. 1, 2 and 3
65. Which one of the following Himalayan vegetation species is found between the altitudes of 1800 to 2600 metres?
- a. Saal                         b. Chir  
c. Spruce                      d. Deodar
66. Which of the following statements about a fluid at rest in cup is / are correct?
1. Pressure is same at all the points in the fluid.
  2. Pressure is exerted on the walls.
  3. Pressure exists everywhere in the fluid.
- Select the correct answer using the code given below
- a. 1 only                        b. 2 only  
c. 2 and 3 only                d. 1, 2 and 3
67. Which one of the following devices is used to measure atmospheric pressure?
- a. Ammeter                  b. Barometer  
c. Potentiometer            d. Lactometer
68. Which one of the following is the number of water molecules that share with two formula unit  $\text{CaSO}_4$  in plaster of Paris?
- a. One                         b. Two  
c. Five                        d. Ten
69. How is carbon black obtained?
- a. By heating wood at high temperature in absence of air  
b. By heating coal at high temperature in absence of air  
c. By burning hydrocarbons in a limited supply of air  
d. By heating coal at high temperature in presence of air
70. Which one of the following properties is NOT true for graphite?
- a. Hybridisation of each carbon atom is  $\text{sp}^3$   
b. Hybridisation of each carbon atom is  $\text{sp}^2$   
c. Electrons are delocalized over the whole sheet of atoms  
d. Each layer is composed of hexagonal rings
71. Which one of the following is the purest forms of Carbon?
- a. Charcoal                    b. Coke  
c. Fullerene                  d. Carbon black
72. The Poisonous nature of Carbon monoxide (CO) is due to its
- a. Insolubility in water  
b. Ability to form a complex with haemoglobin  
c. Ability to reduce some metal oxides  
d. Property of having one sigma bond

73. Which one of the following elements is needed in the human body to transfer electrical signals by nerve cells?  
**a.** Lithium                      **b.** Sodium  
**c.** Rubidium                    **d.** Caesium
74. Who among the following first discovered cell?  
**a.** Robert Brown              **b.** Robert Hooke  
**c.** Leeuwenhoek              **d.** Rudolf Virchow
75. Which one of the following group of organisms forms a food chain?  
**a.** Grass, human and fish  
**b.** Grass, goat and human  
**c.** Tree, tree cutter and tiger  
**d.** Goat, cow and human
76. Which one of the following types of tissues will have contractile proteins?  
**a.** Nervous tissue              **b.** Muscle tissue  
**c.** Bone tissue                  **d.** Blood tissue
77. If by an unknown accident the acid secreting cells of the stomach wall of an individual are damaged, digestion of which of the following biomolecule will be affected to a greater extent?  
**a.** Protein only  
**b.** Lipid  
**c.** Carbohydrate only  
**d.** Protein and Carbohydrate
78. In which one of the following places, Headquarters of a Railway Zone is located?  
**a.** Kanpur                        **b.** Lucknow  
**c.** Hajipur                       **d.** New Jalpaiguri
79. Which of the following statements about Indian Academy of Highway Engineers is/are correct?  
**1.** It is a registered society.  
**2.** It is a collaborative body of both Central Government and State Governments.  
 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
80. Brine is an aqueous solution of  
**a.** NaCl                          **b.** NaOH  
**c.** NaHCO<sub>3</sub>                    **d.** Na<sub>2</sub>CO<sub>3</sub>
81. Which one of the following is the chemical formula of Washing Soda?  
**a.** NaHCO<sub>3</sub>                    **b.** Na<sub>2</sub>CO<sub>3</sub> . 10H<sub>2</sub>O  
**c.** Na<sub>2</sub>CO<sub>3</sub> . 5H<sub>2</sub>O        **d.** NaOH
82. Which one of the following is NOT true for bleaching powder?  
**a.** It is used as a reducing agent in chemical industries  
**b.** It is used for bleaching wood pulp in paper factories  
**c.** It is used for disinfecting drinking water  
**d.** It is used for bleaching linen in textile industry
83. AIDS is caused by a virus whose genetic material is  
**a.** single stranded circular DNA  
**b.** double stranded DNA  
**c.** single stranded RNA  
**d.** double stranded RNA
84. Which one of the following is an organelle that is NOT found in prokaryotic cells?  
**a.** Cell wall                      **b.** Mitochondria  
**c.** Plasma membrane       **d.** Ribosome
85. Which one of the following parts of body does NOT take part in the process of breathing?  
**a.** Bronchi                       **b.** Bowman's capsule  
**c.** Diaphragm                  **d.** Trachea
86. Which one of the following statements about classification of plants is correct?  
**a.** Thallophytes have well differentiated body design  
**b.** Funaria is a fungus  
**c.** All Pteridophytes are Phanerogams  
**d.** Vascular system is not found among Bryophytes
87. Which one of the following is the correct sequence of levels of hierarchy of classification of organisms from higher to lower?  
**a.** Phylum – Class – Order – Family – Genus  
**b.** Phylum – Class – Family – Order – Genus  
**c.** Family – Order – Class – Species – Genus  
**d.** Class – Family – Order – Species – Genus
88. Which one of the following statements about meristematic tissues in plants is correct?  
**a.** These are dead tissues and form wood  
**b.** They provide flexibility to plant due to their thickened walls  
**c.** These are present in the bark of a tree only  
**d.** Growth occurs in plants due to division of cells of these tissues
89. Which one of the following Union Territories has the highest female literacy rate?  
**a.** Chandigarh  
**b.** Ladshadweep  
**c.** Andaman and Nicobar Islands  
**d.** Puducherry
90. Consider the following statements about Roaring Forties :  
**1.** They are strong Westerly winds found in the oceans of Southern Hemisphere.  
**2.** The strong east to west air currents are caused by the combination of air being displaced from the Equator towards the South Pole and the earth's rotation and abundance of landmasses to serve as wind breaks.

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

91. Consider the following statements :

- The doldrums is a low pressure area around Equator where the prevailing winds are calm.
- Chinook is a hot and dry wind that blows in winter and therefore raises the temperature in a short time.

Which of the statements given above is / are correct?

- a. 1 only                      b. 2 only  
c. Both 1 and 2              d. Neither 1 not 2

92. Which one of the following is the driest desert of the world?

- a. Atacama                      b. Gobi  
c. Sahara                      d. Kalahari

93. Which of the following statements about latent heat for a given substance is/ are correct?

- It is fixed at a given temperature.
- It depends upon the temperature and volume.
- It is independent of temperature and volume.
- it depends on the temperature but independent of volume.

Select the correct answer using the code given below:

- a. 2                              b. 1 and 3  
c. 4 only                      d. 1 and 4

94. Which one of the following statements about the mass of a body is correct?

- It changes from one place to another
- It is same everywhere
- It depends on its shape
- It does not depend on its temperature

95. A ball balanced on the vertical rod is an example of

- stable equilibrium
- unstable equilibrium
- neutral equilibrium
- perfect equilibrium

96. Who among the following are the two civil servants who civil servants who assisted the constituent Assembly in framing the constitution of India?

- B.N. Rau and K.M. Munshi
- S.N. Mukherjee and Alladi Krishna swamy Aiyar
- B.N. Rau and S.N. Mukherjeet
- K.M. Munshi and Alladi Krishna swamy Aiyar

97. Which member of the constituent Assembly proposed the resolution that the National Flag of India be a "horizontal tricolour of saffron, which and dark green in equal proportion", with a wheel in navy blue at the centre?

- Jawaharlal Nehru
- B. R. Ambedkar
- Rajendra Prasad
- Sardar Valabhbhai Patel

98. Which of the following is / are NOT historical biography / biographies ?

- Dipavamsa
- Harshacharita
- Vikramankadevacharita
- Prithvirajavijaya

Select the correct answer from the code given below:

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

99. Which of the following pairs are correctly matched? Traveller                      Country from

- Marco Polo                      Italy
- Ibn Battutu                      Morocco
- Nikitin                      Russia
- Seydi Ali Reis                      Turkey

Select the correct answer using the code given below:

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

100. Which of the following clans are included in the Agnikula Rajputs?

- Pratiharas                      2. Chaulukyas
- Paramaras                      4. Chahamanas

Select the correct answer using the code given below

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

101. Who among the following was the author of Humayun Nama?

- Roshanara Begum
- Ruquaiya Sultan Begum
- Gulbadan Begum
- Gauhara Begum

102. Which one of the following about the Parliament of India is NOT correct?

- The Parliament consists of the President, the Lok Sabha and the Rajya Sabha
- There are no nominated members in the Lok Sabha
- The Rajya Sabha cannot be dissolved
- Some members of the Rajya Sabha are nominated by the President

103. Which one of the following statements with regard to the comptroller and Auditor General (CAG) of India is NOT correct?
- He is appointed by the President of India
  - He can be removed from office in the same way as the judge of the Supreme Court of India
  - The CAG is eligible for further office under the Government of India after he has ceased the hold his office
  - The salary of the CAG is charged upon the Consolidated fund of India
104. The Superintendence, direction and control of elections in India is vested in
- The Supreme Court of India
  - The Parliament of India
  - The Election Commission of India
  - The Chief Election Commissioner
105. Which of the following provision (s) of the Constitution of India became effective from 26th November 1949?
- Elections
  - Citizenship
  - Emergency provisions
  - Appointment of the Judges
- Select the correct answer using the code given below
- |               |                 |
|---------------|-----------------|
| a. 1 only     | b. 1 and 2 only |
| c. 1, 2 and 3 | d. 2 and 4      |
106. Which of the following statements regarding construction of Rohtang tunnel is NOT correct ?
- It is located at an altitude of 5,000 feet
  - It will provide all-year connectivity to Lahaul and Spiti Valley
  - The tunnel is being built by the border Roads organization
  - It will reduce the length of the Leh Manali highway by approximately 50 km
107. Who among the following recently became the first woman pilot in Indian Navy?
- |                |                      |
|----------------|----------------------|
| a. Astha Segal | b. Roopa A           |
| c. Sakthi Maya | d. Shubhangi Swaroop |
108. Who among the following Indians did NOT hold the title of Miss World?
- |                 |                  |
|-----------------|------------------|
| a. Reita Faria  | b. Sushmita Sen  |
| c. Diana Hayden | d. Yukta Mookhey |
109. Which one of the following countries has failed to qualify for the first time in 60 years for the FIFA world cup to be held in Russia in the year 2018?
- |                 |          |
|-----------------|----------|
| a. Mexico       | b. Iran  |
| c. Saudi Arabia | d. Italy |
110. The Defence Technology and Trade Initiative (DTTI) is a forum for dialogue on defence partnership between India and
- |                            |
|----------------------------|
| a. Russia                  |
| b. United State of America |
| c. Israel                  |
| d. France                  |
111. As per the policy applicable in 2017, how much Foreign Direct Investment (FDI) is permitted in the defence sector in India?
- 49 per cent through the automatic route
  - 26 per cent through the government route
  - 26 per cent through the automatic route and beyond that up to 499 per cent through the government route
  - 75 per cent through the automatic route
112. Which one of the following countries did NOT participate in the 21st edition of Exercise Malabar?
- United State of America
  - Japan
  - India
  - Australia
113. Justice Dalveer Bhandari of India was recently re-elected to the International Court of Justice after Christopher Greenwood pulled out before 12th round of voting. Christopher Greenwood was a nominee of
- |            |           |
|------------|-----------|
| a. Canada  | b. Russia |
| c. Britain | d. USA    |
114. In order of review the Income Tax Act, 1961 and to draft a new Direct Tax Law in consonance with economic needs of the country, the Government of India in November 2017 has constituted a Task Force. Who the following is made the convenor of it?
- Shri Arvind Subramanian
  - Shri Arvind Modi
  - Shri Amitabh Kant
  - Dr. Bibek Debroy
115. The 5th Global Conference on Cyber Space (GCCS) was held in New Delhi in November, 2017. Which of the following statements about GCCS is / are correct?
- The 4th version of GCCS was held in London.
  - The main them of GCCS 2017 is 'Cyber4All: A Secure and Inclusive Cyberspace for Sustainable Development'.
  - 'Bindu' is the logo GCCS 2017.
- Select the correct answer using the code given below:
- |                 |               |
|-----------------|---------------|
| a. 1 only       | b. 2 only     |
| c. 2 and 3 only | d. 1, 2 and 3 |



116. Which one of the following statements is correct?
- Any energy transfer that does not involve temperature difference in some way is not heat
  - Any energy transfer always requires a temperature difference
  - On heating the length and volume of the object remain exactly the same
  - Whenever there is a temperature difference, heat is the only way of energy transfer
117. If  $T$  is the time period of an oscillating pendulum, which one of the following statements is NOT correct?
- The motion repeats after time  $T$  only once
  - $T$  is the least time after which motion repeats itself
  - The motion repeats itself after  $nT$ , where  $n$  is a positive integer
  - $T$  remains the same only for small angular displacements
118. If an object moves with constant velocity then which one of the following statements is NOT correct?
- Its motion is along a straight line
  - Its speed changes with time
  - Its acceleration is zero
  - Its displacement increases linearly with time
119. An object, is moving with uniform acceleration  $a$ . Its initial velocity is  $u$  and after time  $t$  its velocity is  $v$ . The equation of its motion is  $v = u + at$ . The velocity (along  $y$ -axis) time (along  $x$ -axis) graph shall be a straight line
- passing through origin
  - with  $x$ -intercept  $u$
  - with  $y$ -intercept  $u$
  - with slope  $u$
120. What is the net force experienced by a bar magnet placed in a uniform magnetic field?
- Zero
  - Depends upon length of the magnet
  - Never zero
  - Depends upon temperature
121. Which one of the following has maximum inertia
- An atom
  - A molecule
  - A one-rupee coin
  - A cricket ball
122. Which one of the following is the value of 1 kWh of energy converted into joules?
- $1.8 \times 10^6 \text{ J}$
  - $3.6 \times 10^6 \text{ J}$
  - $6.0 \times 10^6 \text{ J}$
  - $7.2 \times 10^6 \text{ J}$
123. Which one of the following statements about gravitational force is NOT correct?
- It is experienced by all bodies in the universe
  - It is a dominant force between celestial bodies
  - It is a negligible force for atoms
  - It is same for all pairs of bodies in our universe
124. Whether an object will float or sink in a liquid, depends on
- mass of the object only
  - mass of the object and density of liquid only
  - difference in the densities of the object and liquid
  - mass and shape of the object only
125. Which one of the following devices is non-ohmic
- Conducting copper coil
  - Electric heating coil
  - Semi conductor diode
  - Rheostat
126. Which one of the following is the natural phenomenon based on which a simple periscope works?
- Reflection of light
  - Refraction of light
  - Dispersion of light
  - Total internal reflection of light
127. Which one of the following frequency ranges is sensitive to human ears?
- 0 – 200 Hz
  - 20 – 20,000 Hz
  - 200 – 20,000 Hz only
  - 2,000 – 20, 000 Hz only
128. The accidental touch of Nettle leaves creates a burning sensation, which is due to inject of
- Hydrochloric acid
  - Methanoic acid
  - Citric acid
  - Sulphuric acid
129. Which of the following properties is true for a tooth paste?
- It is acidic
  - It is neutral
  - It is basic
  - It is made up of calcium phosphate, the material of tooth enamel
130. Which one of the following gives the highest amount of hydrogen ions ( $\text{H}^+$ )?
- Sodium hydroxide solution
  - Milk of magnesia
  - Lemon juice
  - Gastric juice
131. Which one of the following rivers is NOT a tributary of river Cauvery?
- Hemavati
  - Arkavati
  - Indravati
  - Amravati
132. Which of the following conditions is/are essential for tea cultivation?
- Tropical and sub-tropical climate
  - Heavy rainfall ranging from 150 cm to 250 cm
  - Soil should contain good amount of lime
- Select the correct answer using the code given below:
- 1, 2 and 3
  - 1 and 2 only
  - 2 and 3 only
  - 1 only

133. Bharatmala Project is related to  
 a. Improving road connectivity  
 b. Interlinking ports and railways  
 c. Interlinking of rivers  
 d. Interlinking major cities with gas pipelines
134. Which one of the following is a local wind that blows out from Siberia?  
 a. Bora                                      b. Purga  
 c. Mistral                                    d. Blizzard
135. Which one of the following centres is NOT known for iron and steel industry?  
 a. Bhadravati                              b. Salem  
 c. Vishakhapatnam                      d. Renukoot
136. Which of the following are essential pre-requisites for establishment of a thermal power station?  
 1. Availability of fossil fuels  
 2. Proximity to a river, lake or sea  
 3. Good transport network  
 4. Proximity to an urban centre
- Select the correct answer using the code given below:  
 a. 1, 2 and 3                              b. 2 and 4  
 c. 2 and 3 only                            d. 1 and 3 only
137. Which of the following statements about 'Aadi Mahotsav' held recently in New Delhi is/are correct?  
 1. The theme of the festival was 'A Celebration of the Spirit of Tribal Culture, Cuisine and Commerce'  
 2. The festival was organized by the Ministry of Tourism, Government of India
- 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
138. Light year is a unit for measurement of  
 a. age of universe  
 b. very small time intervals  
 c. very high temperature  
 d. very large distance
139. Which of the following statements about electromagnetic waves, sound waves and water waves is/are correct?  
 1. They exhibit reflection  
 2. They carry energy  
 3. They exert pressure  
 4. They can travel in vacuum
- Select the correct answer using the code given below :  
 a. 1, 2 and 3                              b. 2 and 4  
 c. 1 and 3 only                            d. 1 only
140. Thermal capacity of a body depends on the  
 a. mass of the body only  
 b. mass and shape of the body only  
 c. density of the body  
 d. mass, shape and temperature of the body
141. Who among the following first used the term 'Industrial Revolution' in English to describe the changes that occurred in British industrial development between 1760 and 1820 ?  
 a. Karl Marx                                b. Georges Michelet  
 c. Arnold Toynbee                        d. Friedrich Engels
142. Which one of the following statements about the Olympe de Gouges (1748-1793) is correct ?  
 a. She declared that although citizens should have equal rights, they are not entitled to the same honours by the State  
 b. She was a supporter of the Jacobin government  
 c. She was jailed for treason by the National Assembly  
 d. She declared that the nation is the union of woman and man.
143. Who among the following built a model steam engine in 1698 called "Miner's Friend" to drain mines ?  
 a. Thomas Savery                        b. Thomas Newcomen  
 c. James Watt                              d. Richard Arkwright
144. Which one of the following statements about Renaissance" Humanist culture is NOT true ?  
 a. It slackened the control of religion over human life  
 b. It believed that human nature .was many-sided  
 c. It was concerned with good manners  
 d. It criticized material wealth, power and glory
145. Who gifted the Badshah Nama to King George in 1799?  
 a. Abul Fazl                                b. Abdul Hamid Lahori  
 c. Nawab of Awadh                        d. William Jones
146. What is the name of the award given to meritorious men in the Mughal Court in the form of a robe of honour that was once worn by the Emperor ?  
 a. Sarapa                                      b. Patka  
 c. Padma murassa                        d. Khilat

147. Who among the following social reformer started a society for the encouragement of widow remarriage in 1866 in Maharashtra?
- Bal Gangadhar Tilak
  - Jyotirao Phule
  - Vishnushastri Pandit
  - Pandita Ramabai
148. Name the first major voluntary association representing primarily Indian land-lord interests that was set up in Calcutta in 1851?
- British Indian Association
  - Landholder's Society
  - Madras Native Association
  - Bombay Association
149. Who among the following introduced the Permanent Settlement of Bengal in 1793?
- Lord Cornwallis
  - Lord Ripon
  - Robert Clive
  - John Adam
150. Name the rebel who fought against the British in the battle of Chinhat in the course of the 1857 Revolt?
- Ahmadullah Shah
  - Shah Mal
  - Mangal Pandey
  - Kunwar Singh

