
Standard 9
SCIENCE

Time: 1.30 Hrs.

Marks: 50

PART - I

1. Choose the correct answer:

7×1=7

- 1) Calorie is the unit of _____.
 a) heat b) work c) temperature d) food
- 2) The fastest mode of heat transfer is _____.
 a) conduction b) radiation c) convection
- 3) Number of vibrations produced in one second is _____.
 a) Frequency b) Sound c) Amplitude
- 4) Carbon forms large number of organic compounds due to _____.
 a) Allotropy b) Isomerism c) Tetra valency d) Catenation
- 5) Graphene is one atom thick layer of carbon obtained from _____.
 a) Diamond b) Fullerene c) Graphite D) Gas carbon
- 6) Drones in the honey bee colony are formed from
 a) unfertilized egg b) fertilized egg
 c) parthenogenesis d) both a and c
- 7) Which Indian variety of honey bee is commonly used for apiculture?
 a) Apis dorsata b) Apis florea c) Apis mellifera d) Apis Indica

PART - II

Note: 1. Answer any five questions.

5×2=10

2. Answer to question no. 10 is compulsory.

- 8) Ice is kept in a double-walled container. Why?
- 9) Name the physical quantity whose SI unit is hertz.
- 10) A ship sends out ultrasound that returns from the sea-bed and is detected after 3.42s. If the speed of ultrasound through seawater is 1531 ms^{-1} . What is the distance of the sea-bed from the ship.
- 11) Define Allotropy.
- 12) Why are one time use and throw away plastics harmful?
- 13) What are secondary metabolites?
- 14) Mention any two mushroom preservation methods.

PART - III

Note: 1. Answer any three questions.

3×4=12

2. Answer to question no. 17 is compulsory.

- 15) Explain convection in daily life.
- 16) List the applications of sound.
- 17) a) Differentiate graphite and diamond.
 b) Write all possible Isomers of C_4H_{10} .

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- 18) a) List the medicinal importance of honey.
b) **Match it:**
- | | | |
|--------------|---|-------------------|
| Lobsters | - | Pearl |
| Catla | - | Shell fish |
| Oysters | - | Vegetable farming |
| Olericulture | - | Fin fish |
- 19) Enumerate the advantages of Hydroponics.

PART - IV

3×7=21

Note: 1. Answer all the questions.

2. Each question carries 7 marks.

- 20) Describe with diagram, how compressions and rarefactions are produced.

(OR)

Explain how does SONAR work.

- 21) a) What is catenation? How does carbon form catenated compounds?
b) Name any two safer resin codes of plastics and describe their features.

(OR)

- a) What are the chemical reactions of carbon?
b) When a carbon fuel burns in less aerated room, it is dangerous to say there. Why?

- 22) Define mushroom culture. Explain the mushroom cultivation methods.

(OR)

- a) Give an account of different types of ponds used for rearing fishes.
b) Bio manuring plays an important role in agriculture - Justify.