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PREBOARD EXAMINATION

2011-2012

Std:- VIII

Sub: - Science and Technology

Time:- 3 Hours

Date:- 10.02.2012

Marks:- 80

General Instructions:-

- The question paper consists of 2 sections-Section A(having 21 questions)and Section B(having 09 questions).You are to attempt both the sections.
- All questions are compulsory.
- There is no overall choice. However internal choices have been provided in 3 questions of 5marks category and 3 questions of 2 marks category.
- All questions of section A and all questions of section B are to be attempted separately.
- Questions 1 to 5 in section A and Questions 22 & 23 in section B are multiple choice questions and carry 1 mark each.
- Questions 6 to 11 in section A and Questions 24 and 25 in section B are short answer type Questions and carry 2 marks each.
- Questions 12 to 17 in section A and Questions 26 to 28 in section B are also short answer type Questions and carry 3 marks each.
- Questions 18 to 21 in section A and Questions 29 and 30 in section B are long answer type Questions and carry 5 marks each.

SECTION – A

1. Which among the following is the wrong statement about the human eye? (1)
 - (a) The lens in the human eye is a convex lens.
 - (b) It forms a real, inverted image on the retina.
 - (c) In people having short sight the image is formed in front of the retina.
 - (d) In people having short sight the image is formed at the back of the retina.
2. The planet which remains in darkness for 40 years is (1)
 - (a) Uranus
 - (b) Neptune
 - (c) Saturn
 - (d) Jupiter
3. Betelgeuse is a part of (1)
 - (a) Ursa Major
 - (b) Ursa Minor
 - (c) Orion
 - (d) Cassiopeia

4. Find the odd one out (1)
(a) bakelite (b) polythene (c) terylene (d) nylon
5. Which among the following is true about the synthetic fibre (1)
(a) Synthetic fibres are biodegradable (b) They have low melting point
(c) They have less tensile strength (d) They absorb sweat easily
6. Reema purchased a CD from a shop. While coming home, she was thrilled to see a pattern of beautiful colours, when the sunlight fell on it. Name and define the phenomenon involved. (2)

OR

- Draw a ray diagram for convex lens when the object is kept beyond $2F$ and write the nature of the image formed.
7. A board near the swimming pool showed its depth as 8 feet. Manu felt that the depth was shorter. Explain the reason behind it. (2)
8. Which important principle of the human eye enables us to watch movies and sports? Explain it. (2)
9. Define frequency of a vibrating body. How is it related to pitch of a person? (2)
10. The temperature of a combustible substance should be above its ignition temperature. Then why is it that in summer paper has to be burnt with a burning matchstick where as phosphorous does not require it. (2)

OR

- Which gas is produced by burning carbon fuels in limited supply of air?
What are the harmful effects of this gas on human beings?
11. Give 2 reasons why a person would buy clothes of synthetic fibre. (2)
12. Give reasons: (3)
(a) Birds make characteristic sounds.
(b) Echoes can be heard in open fields and empty buildings.
(c) People living near railway tracks know well in advance about the approaching train.
13. How has global audio visual communication become possible today? (3)
14. (a) How is luminous zone of a flame different from non-luminous zone? (3)
(b) Why is water not used in controlling electric fires? (3)
15. (a) Give 2 parameters of potable water. (3)
(b) How can treatment of industrial waste be done? (3)

16. (a) Bad taste and odour of water indicates pollution. Can you suggest 2 other factors which indicate contamination?
(b) Define chlorination. (3)
17. (a) Rams father could not read the news paper properly when kept at a short distance. What defect is he suffering from and how can it be corrected?
(b) Name the most effective resource used by visually challenged persons. (3)
18. (a) What are the 2 effects of a prism?
(b) What do you mean by absolute refractive index?
(c) How is refractive index related to optical density? (2+2+1=5)
19. (a) Explain the internal structure and working of the human ear with diagram.

OR

- Give 3 harmful effects of noise pollution.
- (b) How does our voice box help in producing sound? (3+2=5)
20. (a) Write an activity to show the presence of wax vapours in the innermost zone of candle flame.
(b) What are the harmful effects of incomplete combustion of fuels? (2+3=5)
21. (a) A silk like fibre made from wood pulp replaced the natural silk. Name the fibre and give 2 of its uses.
(b) Give difference between thermoplastic and thermosetting polymer. (3+2=5)

OR

- (a) Define natural and synthetic fibres giving examples of each.
(b) Name the synthetic fibre which resembles wool. Why is it used for making blankets?

SECTION – B

22. Which among the following is an eco friendly method of weeding? (1)
(a) manual removal (b) tilling before sowing
(c) using weedicide (d) a and b
23. Select the viviparous animal from the following (1)
(a) man (b) frog (c) rat (d) bird
24. What is the difference between water logging and lodging? (2)

25. Use of fertilizers has caused environmental hazards. Suggest 2 eco friendly ways of replenishing soil fertility. (2)

OR

Write four characteristic features of Mexican wheat introduced in India to bring Green Revolution.

26. (a) What would happen if ploughing is not done before sowing seeds? Mention 2 of its side effects. (3)
- (b) Give 2 advantages of transplantation. (3)
27. Draw a neat and labelled diagram of female reproductive system. (3)
28. How is sex of a child determined in human beings? (3)
29. (a) How is reproductive pattern in hen different from the reproductive pattern in frog? Explain.
- (b) Why do binary fission and budding come under asexual reproduction where as reproduction in fishes, frogs and man come under sexual reproduction?
- (c) Give the functions of (i) testes (ii) ovary
30. (a) Discuss the harmful effects of poor nutrition in adolescents.
- (b) Why are endocrine glands known as ductless glands? Name 2 of them. (2+3=5)

OR

- (a) What would happen if the following glands malfunction:
- (i) Pancrease (ii) adrenal gland
- (b) What happens if the ovum in the oviduct does not get fertilized?
- (c) What will happen to tadpole if iodine is deficient in pond water?