

BUDHA DAL PUBLIC SCHOOL PATIALA

First Term Examination (7 March 2023)

CLASS - VII

PAPER- SCIENCE (SET-A)

Time:3 hr.

M.M. 80

General Instructions:

1. All questions are compulsory.
2. Attempt all questions section wise in the serial order neatly and leave one line after every answer.
3. Draw neat and labelled diagrams wherever required.

Physics (27 marks)

I) Multiple Choice Questions :

- Q1. Handles of cooking utensils should be made of material that (1)
- a) conducts heat well b) does not conduct heat
c) radiates heat well d) does not radiate heat well
- Q2. Band of which of these colours is not seen in spectrum? (1)
- a) green b) purple c) yellow d) red

II) True/ False (2)

- a) A thermos flask consists of a double walled glass vessel with space between them filled with air, which is a bad conductor of heat. ____
- b) The SI system is used all over the world in everyday measurements. ____

III) Give one word answers. (2)

- Q1. By which mode is heat transferred in liquids?
- Q2. An object moves to - and - fro about its position of rest. What type of motion is this?

IV) Answer the following:

- Q1 Define : i) Oscillation (ii) Time period (2)

OR

Distinguish between uniform and non-uniform motion.

- Q2. Why do woolen clothes keep us warmer in winters than cotton clothes? (2)
- Q3. Why does heated air rise up? (2)
- Q4. Why does cyclone become weak once it hits land? (2)

V) Answer the following:

- Q1. Give any three precautions needed in cyclone - prone areas? (3)
- Q2. Draw a distance - time graph for following data - (3)

| | | | | | | |
|-----------------|---|----|----|----|----|----|
| Time (s) | 0 | 1 | 2 | 3 | 4 | 5 |
| Distance (in m) | 0 | 15 | 30 | 45 | 60 | 75 |

- Q3. Give three uses of concave mirrors. (3)

A-1

VI) Case - Study

Read the passage below and answer the questions :

When sun shines through water droplets in the air after it rains, or near a waterfall, it gets split into different colours. This is how a rainbow is formed. A diamond cut in a special way can also produce a spectrum. Soap bubbles appear colourful because their thin surface splits light into different colours. When light is reflected by a compact disk (CD), several colours can be seen for same reason.

- Q1. How is a rainbow formed? (2)
- Q2. Name the colours present in spectrum? (1)
- Q3. Which scientist was the first to show that white light is made of seven colours? (1)

Chemistry (26 marks)

- Q1.
- i) Name a disease caused by harmful micro-organisms. (1)
- ii) Name the acid present in vinegar. (1)
- iii) Which acid is used for descaling the boilers in industries? (1)
- iv) What is aqua - regia? (1)
- Q2.
- i) Why chemicals like insecticides should not be disposed off in the sink? (2)
- ii) How does vermicomposting act as an alternative method of sewage disposal? (2)
- iii) What is atomicity? Give examples of monoatomic and diatomic elements? (2)
- iv) What happens when an ant bites a person? How is ant - sting neutralized? (2)
- Q3.
- i) Explain the process of digestion in wastewater treatment. How is it useful? (3)
- ii) Differentiate between organic and mineral acids. (3)
- iii) Derive the molecular formula for a) Sodium Nitrate b) Aluminium Sulphate (3)
- Q4.
- i) Write the properties of compound with examples. (3)
- ii) How do forests prevent soil - erosion? (2)
- OR
- i) The smallest particle of a compound is a _____. (1)
- ii) Name an element which exists in free state in nature. (1)
- iii) If two compounds that do not react chemically are mixed, what do we get? (1)
- iv) How do forests helps in cooling the surrounding air? (2)

Biology (27 marks)

- Q1. Name the hardest substance that covers your teeth. (1)
- Q2. By which part, mosquito sucks the blood of animal? (1)
- Q3. Which instrument is used to measure humidity? (1)
- Q4. Name the tiny filtering units of kidneys. (1)
- Q5. Give two examples of plants whose seeds are dispersed by explosion. (1)
- Q6. What role does saliva play in the digestion process? (Give 2 points) (2)
- Q7. Why are cloudy nights warmer than clear nights? (2)
- Q8. Transpiration allows plants to lose excess of water. It also has two other functions. What are these? (2)
- Q9. Define unisexual flowers. Give two examples. (2)
- Q10. a) An elephant lives in a rainforest. How is the trunk of an elephant useful in the rainforest? (Give 2 points) (2 +1)
b) Why is it very difficult to predict the weather?
- Q11. Differentiate between Red blood cells and white blood cells. (Give 3 points) (3)
- Q12. Explain three advantages of vegetative reproduction. (3)
- Q13. a) Define pollination. (1)
b) Name two agents of pollination. (1)
c) Draw a well labelled diagram to show fertilization in a flower. (3)

OR

- Q13. a) How the right side of the heart is completely separated from the left side.
b) Name the artery that carries carbon - dioxide rich blood from the heart to the lungs.
c) Draw a well labelled diagram of the Human Urinary System. (1+1+3)