

**Time: 2 ½ Hours****Maximum Marks: 80**

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**General Instructions:**

- The question paper consists of 34 questions and is divided into four sections, A, B, C, and D.
  - All questions are compulsory.
  - Section A comprises of question numbers 1 to 15. These are multiple choice questions which carry one mark each. You are to select the one most appropriate answer out of the four provided options.
  - Section B comprises of question numbers 16 to 22. These are short answer questions that carry two marks each.
  - Section C comprises of question numbers 23 to 31. These are short answer questions carrying four marks each.
  - Section D comprises of question numbers 32 to 34. These are short answer questions carrying five marks each.
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**Section A****Q#1:** How many chambers does a human heart have?

- a. One
- b. Two
- c. Four
- d. Six

**Q#2:** Blood gets its red color due to:

- a. Red blood cells
- b. Hemoglobin
- c. White blood cells
- d. Platelets

**Q#3:** The reproductive part of a flower is:

- a. Branch
- b. Root
- c. Flower
- d. Leaf

**Q#4:** The cell which is formed from the fusion of gametes is called:

- a. Zygote

- b. Embryo
- c. Seed
- d. Fruit

**Q#5:** The time taken by a pendulum to complete one oscillation is called:

- a. Time frame
- b. Oscillation time
- c. Completion time
- d. Time period

**Q#6:** The device which measures the distance moved by the vehicle is called:

- a. Odometer
- b. Speedometer
- c. Travel meter
- d. Distance meter

**Q#7:** When an electric current flows through a wire, the wire is heated. This is called:

- a. Boiling effect of current
- b. Heating effect of current
- c. The hot temperature effect of current
- d. Magnetic effect of current

**Q#8:** The electric bell works with the help of :

- a. Heating effect of current
- b. Magnetic effect of current
- c. Both (a) and (b)
- d. None of the above

**Q#9:** The change in the direction of light when it hits a mirror is called:

- a. Refraction of light
- b. Tyndall Effect
- c. Reflection of light
- d. None of the above

**Q#10:** A stainless steel spoon can act as a :

- a. Concave mirror
- b. Convex mirror
- c. Both (a) and (b)
- d. None of the above

**Q#11:** Which of the following DO NOT cause the depletion of the water table?

- a. Deforestation
- b. Overpopulation
- c. Industrial Activities
- d. Rainwater Harvesting

**Q#12:** Which of the following is NOT a good water management practice?

- a. Drip irrigation
- b. Rainwater Harvesting
- c. Leaving the leaking taps and pipes unattended.
- d. Judicious use of water while bathing.

**Q#13:** Which of the following is FALSE?

- a. Forests help in preventing soil erosion
- b. Forests cannot grow and regenerate
- c. Forests can influence climate
- d. Forests can improve the quality of air.

**Q#14:** Which of the following products are NOT forest products?

- a. Gum
- b. Polythene bags
- c. Honey
- d. Catechu

**Q#15:** Which of the following are good Wastewater management practices

- a. Leaving drains open
- b. Throwing chemicals like paints into the drains
- c. Building more Wastewater treatment plants
- d. Throwing cooking oils and fats down into the drains.

## Section B

**Q#16:** What are the functions of (i) white blood cells (ii) Platelets

**Q#17:** What is Pollination?

**Q#18:** What is the heating effect of electric current?

**Q#19:** What is the magnetic effect of electric current?

**Q#20:** What are (i) concave mirrors and (ii) convex mirrors?

**Q#21:** Give two causes for water table depletion.

**Q#22:** What is a Forest? Describe it.

## Section C

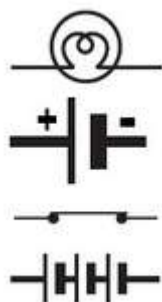
**Q#23:** Draw and label a diagram of the pistil and stamen of a plant.

**Q#24:** Draw a diagram to represent the reproduction of yeast by budding.

**Q#25:** What is a simple pendulum? Define its time period.

**Q#26:** What are the units of (i) time, (ii) distance, and (iii) speed?

**Q#27:** Write the electric components corresponding to the following symbols.



**Q#28:** Draw a diagram to show the splitting of light by a prism. What are the colors obtained from the splitting of white light?

**Q#29:** What are the differences between concave and convex lenses?

**Q#30:** List any four uses of forests.

**Q#31:** How is water treated at a wastewater treatment plant?

## Section D

**Q#32:** Draw and label a diagram of the human excretory system.

**Q#33:** What are the forms in which water can be found on the Earth? Give examples for each.

**Q#34:** List 3 housekeeping practices which can help reduce the load on wastewater treatment plants.

