

PT4/ANNUAL EXAMINATION, 2023-24

SCIENCE

Time – 3 hrs.

Class – VII

M.M. – 80

Name of the student _____ **Section** _____ **Date - 20.02.2024 (Tuesday)**

GENERAL INSTRUCTIONS -

- This question paper consists of two sections A and B.
- Section A carries total 30 objective questions from Q1 to Q4. (1 mark each)
- All objective questions are compulsory.
- Section B carries 50 marks of subjective questions from Q 5 to Q 9.

SECTION A - Objective questions

Q.1 Choose the correct option.

(1x15=15)

- i) During respiration, plants
 - a) Take in CO_2 and release O_2
 - b) Take in O_2 and release H_2O
 - c) Take in O_2 and release CO_2
 - d) Both (b) and (c)
- ii) Which of the following group of organisms respire through skin?
 - a) Frog and fish
 - b) Earthworm and frog
 - c) Hydra and cockroach
 - d) All of these
- iii) The walls of arteries are
 - a) Thin and elastic
 - b) Thick and elastic
 - c) Thick and non-elastic
 - d) Thin and non-elastic
- iv) The xylem and phloem in a plant make up a tissue called
 - a) Muscular tissue
 - b) Vascular tissue
 - c) Connective tissue
 - d) Skeletal tissue
- v) Which of the following plant contain bisexual flowers?
 - a) Mustard
 - b) Rose
 - c) Hibiscus
 - d) All of these
- vi) Which of the following seeds are generally **not** dispersed by wind?
 - a) Seeds with wings
 - b) Seeds with hair
 - c) Light weight seeds
 - d) Spiny seeds with hooks
- vii) Which of the following is **not** a forest product?
 - a) Gum
 - b) Plywood
 - c) Sealing wax
 - d) Kerosene
- viii) Which of the following is used to make compost in waste water treatment plant?
 - a) Sewage
 - b) Sludge
 - c) Grit
 - d) Scum
- ix) Untreated human excreta is a health hazard. It results in
 - a) Pollution of soil and water
 - b) Contamination of ground water and surface water
 - c) Spread of water-borne diseases
 - d) All of these

- x) Which of the following is **not** a natural indicator?
 a) Methyl Orange b) Turmeric c) Lemon juice d) Vinegar
- xi) Which one of the following fruits contains ascorbic acid?
 a) Spinach b) Grapes c) Tamarind d) Amla
- xii) The shorter, thicker vertical line in the symbol of a cell represents
 a) The positive terminal b) The negative terminal
 c) The direction of current d) None of these
- xiii) The heat produced in wire depends on
 a) Length of the wire b) Colour of the wire c) Both (a) and (b) d) None of these
- xiv) Which of the following is being used in place of fuses?
 a) MCB b) Nichrome c) Filament d) Switch
- xv) The question below consists of an assertion and a Reason. Use the following key to choose the appropriate answer.
 (a) Both A and R are true and R is the correct explanation of A.
 (b) Both A and R are true but R is not the correct explanation of A.
 (c) A is true but R is false.
 (d) A is false but R is true.

Assertion (A): Yeast is a single celled organism that can respire anaerobically.

Reason (R): Yeast is used to make wine and beer.

Q2 Give one word answer: (1x5=5)

- Accumulation of which acid causes muscular cramps?
- Which part of a flower gives rise to the seeds after the process of fertilisation?
- What is the dark-coloured substance formed by the breakdown of dead organic matter in the soil?
- Name the disease caused by consumption of contaminated water.
- Name the coloured band of light obtained by dispersion of white light.

Q.3 Fill ups: (1x6=6)

- The process of artificial filtration of blood periodically is called _____
- The combination of two or more cells is called a _____
- Pulmonary artery carries _____ blood away from the heart.
- Roots, stems and leaves are _____ parts of a plant.
- Connection of many devices to a single socket may cause _____ in the circuit.
- A solution changes the colour of turmeric indicator from yellow to red, the nature of the solution is _____.

Q.4 Correct the following underlined words and rewrite the statements: (1x4=4)

- To make a battery of two cells, the negative terminal of one cell is connected to the negative terminal of the other cell.
- We can obtain a real, enlarged and inverted image by a convex mirror.
- Branchy part of a tree above the stem is known as the canopy.
- The sequential process of eating and being eaten is called as food web.

SECTION B - SUBJECTIVE QUESTIONS

Q.5 Very Short answer questions: (Attempt any 5) **(2x5=10)**

- a. Why do we sneeze when we inhale a lot of dust-laden air?
- b. What is Zygote?
- c. Write any two causes of deforestation.
- d. What is sludge? Explain how it is treated?
- e. Write any two effects of electric current.
- f. Why forests are called as green lungs?

Q.6 Short answer questions: (Attempt any 4) **(3x4=12)**

- a. Write any three components of blood with their functions.
- b. Differentiate between asexual and sexual reproduction in plants. (Any 3 differences).
- c. Explain why there is no waste in forest?
- d. Explain why-
 - i) An antacid tablet is taken when you suffer from acidity.
 - ii) Calamine solution is applied on the skin when an ant bites.
- e. What is electromagnet? Write any two uses of electromagnet.
- f. State three characteristics of image formed by a plane mirror.

Q.7 Draw well labelled diagram. (Any one diagram): **(3x1=3)**

- a. Circuit diagram of an open and a closed circuit.
- b. Process of fertilization in flower.
- c. Convergence and divergence by lenses.

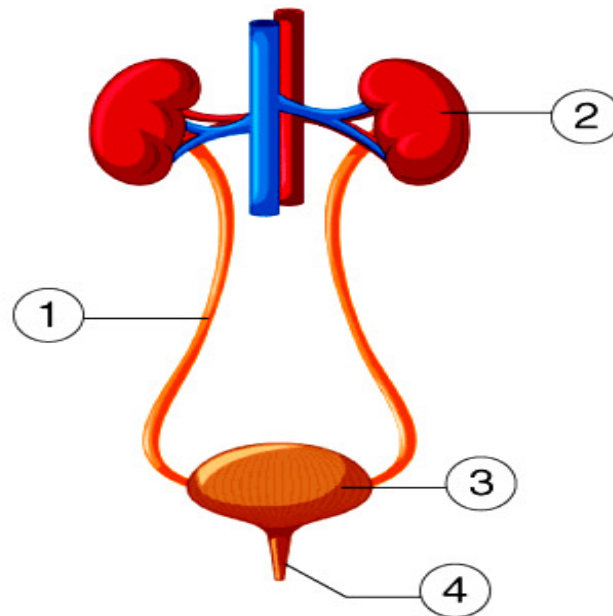
Q.8 Long answer type questions (Any 4): **(5x4=20)**

- a.
 - i) Differentiate between aerobic and anaerobic respiration (any three differences). (3)
 - ii) Define breathing rate. Breathing rate increases at the time of physical activity. Give reason.(2)
- b. Describe following methods of asexual reproduction with suitable example and well labelled diagram. (any two) (2.5+2.5)
 - i) Fragmentation
 - ii) Budding
 - iii) Spore formation
- c. Describe any 5 steps involved in getting clarified water from wastewater treatment plant. (5)
- d.
 - i) Differentiate between acids and bases (any three differences) (3)
 - ii) Name the acid present in curd and the base present in lime water. (2)
- e.
 - i) The side mirror of a car got broken. The mechanic replaced it with a plane mirror. Mention any inconvenience that the driver of the car will face while using it. Name the mirror which is used as side view mirror in vehicles. (2)
 - ii) The image of the sun formed on a paper with the help of a magnifying glass burn the paper. Give reason. (2)
 - iii) What is a virtual image? (1)

Q.9 Attempt any one:

(5x1=5)

- (i) Identify and write name of the given diagram. (1)
- (ii) Label 1, 2, 3 and 4. (2)
- (iii) Write major excretory product in human and fish. (2)



OR

- (i) Identify and write name of the given diagram. (1)
- (ii) Label parts A, B, C, and D. (2)
- (iii) Write one function of part A and D each. (2)

