

PT4/ANNUAL EXAMINATION, 2022-23

SCIENCE

Time - 3 hrs.

Class – VII (Set-A)

M.M. – 80

Name of the student _____ Section _____ Date - 09.02.2023 (Thursday)

GENERAL INSTRUCTIONS :

- This question paper consists of two sections A and B.
- Section A carries total 30 objective questions from QI to QIV. (1 mark each)
- All objective questions are compulsory.
- Section B carries total of 19 subjective questions from Q V to QVII.

SECTION A – OBJECTIVE PART

I. Tick the correct option:

(1x18=18)

- Q.1 Colour of phenolphthalein indicator in acidic and basic medium, respectively are:
A. Pink and colourless B. Colourless and pink C. Blue and red D. Red and blue
- Q.2 The correct way of making a solution of acid in water is to:
A. Add water to acid B. Add acid to water
C. Mix acid and water simultaneously D. Add water to acid in a shallow container
- Q.3 Breathing is a process that-
(i) Provides O₂ to the body. (ii) Breaks down food to release energy.
(iii) Helps the body to get rid of CO₂. (iv) Produces water in the cells.
Which of the following gives the correct combination of functions of breathing?
A. (i) and (ii) B. (ii) and (iii) C. (i) and (iii) D. (ii) and (iv)
- Q4. In anaerobic respiration, glucose is broken down into which of the following substances?
A. Carbon dioxide and water. B. Carbon dioxide and oxygen.
C. Alcohol and carbon dioxide. D. Alcohol and oxygen.
- Q5. The blood vessel which carries blood from lungs to heart is called:
A. Pulmonary artery B. Renal artery
C. Pulmonary vein D. Renal vein
- Q6. Read the passage given below and answer the question that follows.
Our blood consists of various types of cells. It is a fluid which has various types of cells suspended in it. It contains RBC, WBC, plasma and platelets. They have different functions to perform. Which of the following component forms clot at the site of injury and prevents excessive blood loss?
A. RBC B. WBC C. Plasma D. Platelets
- Q7. Which of the following options define the term vegetative reproduction?
A. Fertilization of stamens and stigma through pollen grains.
B. Development of new plant from spores when favorable conditions are provided.

- C. Reproduction of new plants from stem, roots and leaves.
 D. Reproduction of a plant from reproductive organs.
- Q8. In fern, asexual reproduction takes place through:
 A. Spore formation B. Fragmentation C. Budding D. Binary fission
- Q9. When electric current passes through a wire, it behave like a:
 A. Battery B. Temporary magnet C. Fuse D. Compass needle
- Q10. A glowing incandescent bulb becomes warm due to the:
 A. Heating effect of current B. Magnetic effect of current
 C. Chemical effect of current D. None of the above
- Q11. Which mark should we check on electric appliances before purchasing to be sure about its safety?
 A. ISI B. FICC C. AGMARK D. KSK
- Q12. A coloured band of light obtained by dispersion of light when it passes through a prism is called as:
 A. Image B. Spectrum C. Convergence D. Scattering
- Q13. A convex lens is
 A. Thicker at centre B. Thinner at the centre
 C. Thicker at edges D. Having no spherical surface
- Q14. Boojho and Paheli were given one mirror each by their teacher. Boojho found his image to be erect and of the same size whereas Paheli found her image to be erect and smaller in size. This means that the mirrors of Boojho and Paheli are, respectively:
 A. Plane mirror and concave mirror B. Concave mirror and convex mirror
 C. Plane mirror and convex mirror D. Convex mirror and plane mirror
- Q15. Forests are not responsible for:
 A. Providing medicinal plants B. Maintaining O₂ and CO₂ balance
 C. Creating flood conditions D. Absorbing rainwater and maintaining water table
- Q16. Identify the correct word from the given options to complete the food chain.
 Grass → _____ → Frog → Snake → Eagle
 A. Insects B. Rabbit C. Goat D. All of the above
- Q17. Which of the following is used to disinfect wastewater?
 A. Ozone B. Chlorine C. UV light D. All of the above
- Q18. What do we call the network of big and small pipes carrying wastewater from the point of production to the point of disposal?
 A. Manhole B. Sewage C. Sewerage D. None of the above

II. Fill in the blanks: (1x4=4)

- Q.1 can cause damage to historical monuments, marble, statues, plants and animals.
 Q.2 The process of breakdown of food in the cell with the release of energy is called
- Q.3 The periodical filtration of blood through an artificial kidney is known as
- Q.4 pollinated flowers are generally colourful and fragrant.

III. Identify the statement as true or false. (1x4=4)

- Q.1 Increased physical activity reduces the rate of breathing.
Q.2 The seed contains an embryo enclosed in a protective seed coat.
Q.3 Aquatic animals like fishes, excrete cell waste as uric acid which directly dissolves in water.
Q.4 The surface of water can also act like a mirror and change the path of light.

IV. Give one word answer for: (1x4=4)

- Q.1 This lens is used as a magnifying glass.
Q.2 Name the first person who noticed the deflection of compass needle every time the current was passed through the wire.
Q.3 Branchy part of tree above stem.
Q.4 Solid waste extracted in sewage treatment.

SECTION B – SUBJECTIVE PART

V. Very short answer questions (ANY 5) (2x5=10)

- Q.1 Is distilled water acidic/basic/neutral? How would you verify it?
Q.2 Whenever we feel drowsy or sleepy, we start yawning. Does yawning help us in anyway? Explain.
Q.3 Why is it necessary to excrete waste products?
Q.4 What are decomposers? Name any two of them.
Q.5 Write any two uses of concave mirror.
Q.6 Define neutralization with an example.

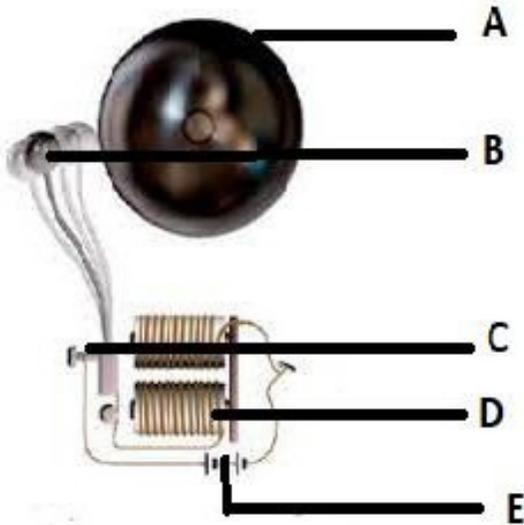
VI. Short answer questions (ANY 5) (3x5=15)

- Q.1 During running or heavy exercise, the breathing rate increases. Explain why does it happen?
Q.2 Draw and label **any one** of the following:
a. Self and cross pollination in a flower
b. Human excretory system
c. Circuit diagram showing an open and a closed circuit
Q.3 a) Explain why CFL's are preferred over incandescent electric bulbs?
b) Name any two effects of electric current.
Q.4 What is food chain? If one component of the food chain is removed, what would be the effect on eco system.
Q.5 What is sewage? Why it is harmful to discharge untreated sewage into rivers or seas?
Q.6 What is MCB? How does it work?

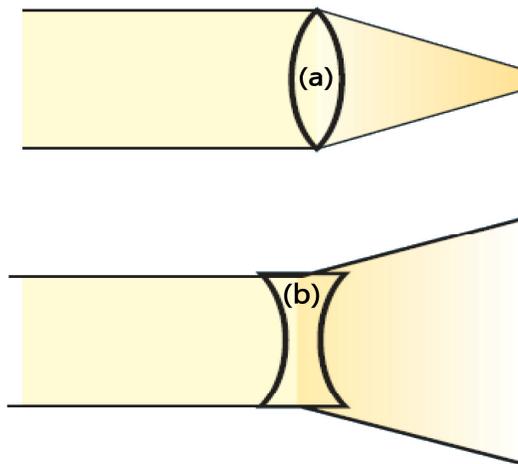
VII. Long answer questions (ANY 5) (5x5=25)

- Q.1 Forests are considered as our lifeline. Write any five importance of forests.
Q.2 Describe different steps involved in getting clarified water from wastewater in Waste water treatment plant.

- Q.3 a) Define breathing rate.
 b) Write any 4 differences between aerobic and anaerobic respiration.
- Q.4 Define Fertilization. How does it take place in flowers? Explain with the help of diagram.
- Q.5 Observe the diagram and answer the following questions:
 (a) Name the given diagram.
 (b) Label **any four** parts of the given diagram (A, B, C, D & E).



- (c) Write the effect on which the device works.
 (d) Define D.
- Q.6 Observe the diagram and answer the following questions:



- (a) Identify and name (a) and (b).
 (b) What property is shown by (a) and (b) in the figure?
 (c) Write one use of both (a) and (b).
- Q.7 a) What is the special feature in the human heart that prevents mixing of oxygen rich and carbon dioxide rich blood?
 b) Describe the circulation of blood in human body.

