



विद्या सर्वार्थ साधिका

ANANDALAYA
ANNUAL EXAMINATION
Class : VIII

Subject: Science
Date : 06/03/2020

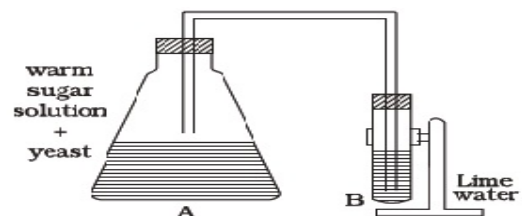
M.M: 80
Time: 3 Hours

General Instructions:

1. The question paper comprises four sections A, B, C and D. Attempt all the sections.
2. This question paper consists of a total of 30 questions. All questions are compulsory.
3. All questions in Section A are objective type questions and carry one mark each.
4. All questions in Section B and Section C are short answer type questions and carry two and three marks respectively.
5. All questions in Section D are long answer type questions and carry five marks each.

SECTION A

1. In electrorefining of metals, the impure metal is taken as the _____. (1)
(a) anode. (b) cathode. (c) electrolyte. (d) charger.
2. Which of the following metals is used in electroplating to make objects appear shining? (1)
(a) Copper (b) Iron (c) Chromium (d) Aluminium
3. Two persons are applying forces on two opposite sides of a moving cart. The cart still moves with the same speed in the same direction. The net force on the cart will become _____. (1)
(a) maximum (b) minimum (c) zero (d) negative
4. A non-metal that is liquid at room temperature is _____. (1)
(a) chlorine (b) bromine
(c) oxygen (d) iodine
5. Which of the following is not a characteristics of metals? (1)
(a) Shine brightly when polished (b) Generally solid at room temperature
(c) Bad conductors of heat and electricity (d) Can be drawn into thin wires
6. Less polluting fuel for vehicle is _____. (1)
(a) Petrol (b) Kerosene
(c) Diesel (d) Compressed Natural Gas (CNG)
7. In Hydra the mode of reproduction is _____. (1)
(a) Sexual (b) Asexual
(c) Both (a) and (b) (d) Vegetative reproduction
8. Observe the experimental set up given in the figure and select the correct option for the questions given below. (1)
(i) Which gas is released in A?
(ii) What changes will you observe in B when the released gas passes through it?
(a) (i) O₂ (ii) Lime water turns milky (b) (i) CO₂ (ii) Lime water remains same
(c) (i) CO₂ (ii) Lime water turns milky (d) (i) O₂ (ii) Lime water turns blue



9. You observed a slide under a microscope that has cell with cell wall but no distinct nucleus. The cell that was observed is (1)
- (a) Bacterial cell (b) Animal cell
(c) Plant cell (d) Nerve cell (1)

10. Answer question numbers 10(a) - 10(d) on the basis of your understanding of the following paragraph and the related concepts studied. (1)

Stars were grouped into constellations and these constellations were often named after characters from mythology. Many of the constellations were named after animals, heroes, and even villains from these legends of long ago. Astronomers, or people who study the heavenly bodies, divided the stars into eighty-eight “official” constellations. These constellations form a kind of map of the sky, helping us to understand the placements of planets and other celestial bodies.

Navigators and early explorers used constellations to help them determine their location during their explorations. The part of the sky we see at night changes as the earth rotates. People looking at the night sky in different locations see stars and constellations differently. Even when they had no landmarks and were traveling without maps, early travelers could figure out where they were just by looking at the sky.

- (a) How does Ursa Major constellation help navigators to locate True North of Earth? (1)
(b) Write one point of difference between Morning star and Sirius. (1)
(c) Constellation ‘Leo’ was named after _____ animal. (1)
(d) Pole Star appears to revolve around the axis the earth. State True/False (1)

11. Match the following:

Column A	Column B	
(a) Nitrogen	(i) 20.95%	(1)
(b) Freon	(ii) Coal	(1)
(c) Particulate matter	(iii) CFC	(1)
	(iv) 78.08%	
	(v) Air pollution	

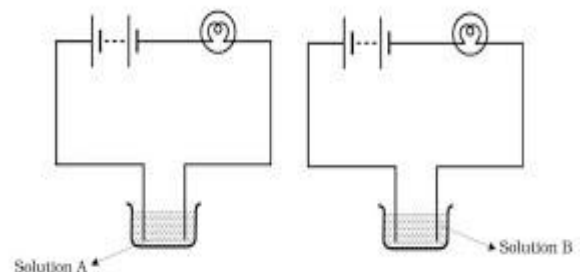
12. Read the given passage and answer the questions.

Bacteria are microscopic and least differentiated living organisms, believed to be the first primitive organisms on our planet. They are the typical prokaryotes and also possess characters resembling both the plants and animals.

- (a) Why are bacteria referred as typical prokaryotes? (1)
(b) Name the type of bacteria that is microscopic and photosynthetic. (1)
(c) List any one character of bacteria that is common to both plants and animals. (1)
(d) Which bacteria can be cultured easily at home? (1)

SECTION B

13. Riya sets up an experiment using liquid A in the beaker as shown in figure. She observed that the bulb glows. Then she replaced the liquid A by another liquid B. This time the bulb did not glow. Radha suggested replacing the bulb by an LED. They observed that the LED glows. Explain. (2)



14. Give reason and explain: (2)
(a) A night bird, like owl can see very well in the night but not during the day.
(b) The movies that we see are actually a number of separate pictures in a proper sequence, but we see them in motion.
15. Explain circumstances leading to acid rain. How does acid rain affect us? (2)
16. Explain why fossil fuels are exhaustible natural resources. Give two examples of fossil fuels. (2)
17. Unscramble the highlighted words in the following statements. (2)
(a) Cells of our body produce **santiidobe** to fight pathogens.
(b) **Curbossulite** is an air-borne disease caused by a bacterium.
(c) **Xanrhat** is a dangerous bacterial disease.
(d) Yeasts are used in the wine industry because of their property of **meronettinaf**.
18. The Siberian crane migrates from western Siberia to India during a particular time of the year. Which are the two major conditions present in their habitat that are responsible for this behaviour during that time? (2)

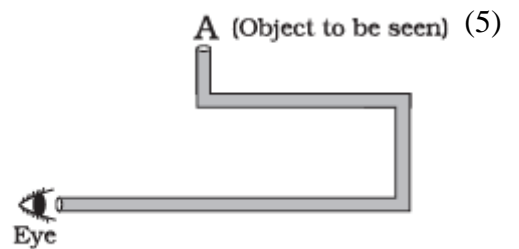
SECTION C

19. (a) Define one pascal. (3)
(b) A brick of dimensions 15 cm x 10 cm x 5 cm applies a force of 1.5 N when placed on a surface. Find out the pressure, it exerts when it is placed (i) in vertical position and (ii) in horizontal position with widest part as its base.
20. (a) Name the following: (3)
(i) Another name of fluid friction. (ii) Non sticky material used to reduce friction.
(b) When you ride a bicycle, several kinds of motion take place. Identify, in which of the motions, friction is advantageous and in which it is disadvantageous.
21. What do you mean by petroleum refining? Name any two products obtained on refining petroleum and write their main use. (3)
- 22.. Draw a labelled diagram of a candle flame. (3)
23. In your school, as a part of eco-club activity students were asked to raise a kitchen garden. They were provided with khurpi, water-can, spade, and shovel and have been asked to use only environment friendly materials if required. Help the students by listing the materials required and writing down the steps to raise the kitchen garden. (3)
24. Read the given statements carefully and write appropriate scientific reason for each statement. (3)
(a) Although two cells called gamete fuse, the product formed is single cell called zygote.
(b) The eggs of frog do not have shells for protection, yet they are safe in water.
(c) In humans, mother gives birth to a baby, but the baby has characters of both parents.

SECTION D

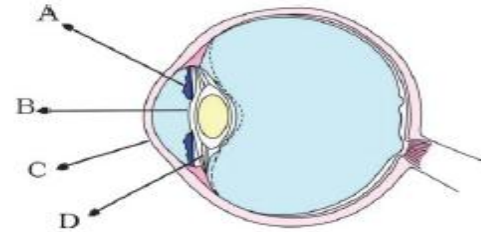
25. (a) Write audible and inaudible ranges of human ear. (5)
(b) Represent graphically by drawing two separate diagrams in each case.
(i) Two sound waves of same amplitude but different frequencies.
(ii) Two sound waves of same frequency but different amplitudes.
(iii) Two sound waves of different amplitudes and different frequencies.

26. (a) State the laws of reflection.
 (b) What are regular and irregular reflection?
 (c) Draw a diagram to show that both types of reflections follow the laws of reflection.
 (d) How does a ray of light from A reach eye in the adjacent diagram? Complete the adjacent diagram using plane mirrors.



OR

- (a) Name the labelled parts of human eye.
 (b) Explain the function of each labelled part.
 (c) Suggest two ways how can you take care of your eyes.



27. (a) State three necessary conditions of combustion. (5)
 (b) Give reason for the following
 (i) Water is not used to control fires involving electrical equipment.
 (ii) LPG is a better domestic fuel than wood.

OR

- (a) What is calorific value of a fuel? Write any four characteristics of an ideal fuel.
 (b) In an experiment 6.5 kg of a fuel was completely burnt. The heat produce was measured to be 390,000 kJ. Calculate the calorific value of the fuel.

28. (a) Compare the following properties of metals and non metals: (5)
 ductility, lustre, electrical conductivity
 (b) What happens when: (Write word equations of the reactions involved.)
 (i) Dilute sulphuric acid is poured on a copper plate?
 (ii) Iron nails are placed in copper sulphate solution?

29. (a) Write two differences between Afforestation and Reforestation. (5)
 (b) How does deforestation lead to frequent floods and droughts?
 (c) Why should we save paper?

OR

- (a) Why are wildlife sanctuaries important for conservation of plants and animals?
 (b) Why are endemic organisms in greater danger of becoming extinct?
 (c) Mention the objective of 'Project Tiger'.
 (d) What is the unique feature of the biodiversity found in Panchmarhi Biosphere Reserve?
 (e) Name one Fauna and Flora found in Panchmarhi Biosphere Reserve.

30. (a) Draw the Plant cell and label the parts as indicated below: (5)
 (i) Where genes are located
 (ii) The part that gives shape to the cell
 (iii) The cell organelle that synthesizes starch
 (iv) The jelly like substance between cell membrane and nucleus
 (b) Plant cell has a large central vacuole. Why?
 (c) Define the term 'Gene'.