

D.A.V. PUBLIC SCHOOL, POKHARIPUT, BHUBANESWAR.
SAMPLE QUESTION FOR HALF YEARLY EXAMINATION,2022-23.

Class- VII
Subject-Science

Time-3.00hrs.

Max. Marks-80

General instructions:-

1. Answer all questions.
2. Q.1 to 14 are very short answer type questions and are to be answered in one word or one sentence.
3. Q.15 to 18 are very short answer type MCQs i.e assertion-reason type, case based questions and are to be answered by choosing the correct option from them.
4. Two mark questions (Q. 19 to 27) are to be answered in in thirty words, three mark questions (Q. 28 to 33) are to be answered in fifty words and five mark questions(Q. 34 to 37) are to be answered in seventy words approximately.

5. Draw labelled diagrams wherever necessary.

- 1 Write the chemical symbol of the following ions. 1
a.hydroxide b. Magnesium ion.
- 2 What type of charges are produced when two different materials are rubbed against each other? 1
- 3 Why are non-metallic materials get charged on rubbing? 1
- 4 Name the charge produced on an ebonite rod when rubbed against flannel . 1
- 5 The upper layer of the water trapped in the space between the underground rocks. Give key word for it. 1
- 6 Write the main source of ground water. 1
- 7 Write the effect of electric current by which the working of geyser is based . 1
- 8 Define vessels. 1
- 9 State the significance of green pigment chlorophyll for the animal world. 1
- 10 Define holozoic nutrition. 1
- 11 Write down the importance of Caecum in the digestive system of ruminants . 1
- 12 State the main role of blood in the respiratory system. 1
- 13 There are certain features in the skin of earthworm which makes it an organ for gaseous exchange. What are those features? 1
- 14 Define pulse rate . 1
- 15 **Assertion** :-Rain water should be collected in underground tanks and allowed to seep through the soil. 1
Reason :-Unnecessary cutting of trees should be checked which will increase the rainfall.
a) Both the Assertion and the Reason are correct and the reason is the correct explanation of the assertion
b) The Assertion and the Reason are correct but the reason is not the correct explanation of the assertion.
c) Both are wrong statements.
d) Assertion is correct but reason is incorrect.
- 16 **Assertion:** Transpiration is beneficial to plants. 1
Reason : It lowers down the plant body temperature in winters and is a necessary

evil .

Mark the correct statement.

- a. Assertion and reason are correct and reason is the correct explanation for assertion.
- b. Assertion and reason are correct but reason is not the correct explanation of assertion.
- c. Assertion is correct and reason is false.
- d. Both assertion and reason are false.

17 Different organisms have different ways of breathing thus they have different organs of gaseous exchange. So they were given an aquarium with different organisms to study. 4

1. What is required by the organisms to survive in aquarium for longest possible time ?

- i. Nitrates
- ii. Sunlight
- iii. Carbon dioxide
- iv. Oxygen

2. The respiratory organ through which the fishes in an aquarium breathe are

- i. Gills
- ii. Skin
- iii. Lungs
- iv. Spiracles

3. The respiratory organs for crabs and prawns in water are

- i. Trachea
- ii. Gills
- iii. Lungs
- iv. Skin

4. How water is necessary for the survival of the organisms in an aquarium.

- i. Water provides oxygen gas required for respiration.
- ii. Water provides hydrogen gas for respiration .
- iii. Water provides nitrogen gas necessary for animals and plants.
- iv. Water provides carbon dioxide which is essential for respiration

18 The most convenient source of energy is electricity. Electricity has a very important role because it is used to run many electrical appliances like an electric bulb, television, a stereo system, refrigerator, washing machine, computers, etc., and we cannot think our life without making use of electricity. Electricity is produced at power stations from where it is brought to our homes through the thin wire and electric poles networks or underground cables (or wires). Here, we can define the electric current as of the flow of electricity through a conductor (wires, cables). 4

- (i) Which one of the following is not based on the heating effect of current?

- (a) Geysers
 - (b) Hair dryer
 - (c) Immersion rod
 - (d) electric bell
- (ii) The coil of wire contained in an electric heater is known as -----
-
- (a) component
 - (b) element
 - (c) circuit
 - (d) spring
- (iii) When an electric current flows through a copper wire AB as shown in Figure, the wire

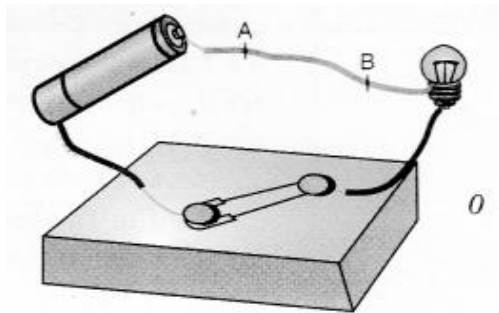


Fig.

- (a) deflects a magnetic needle placed near it
 - (b) becomes red hot
 - (c) gives electric shock
 - (d) behaves like a fuse
- (iv) When a switch is in OFF position.
- (i) circuit starting from the positive terminal of the cell stops at the switch.
 - (ii) circuit is open.
 - (iii) no current flows through it.
 - (iv) current flows after some time.
- Choose the combination of correct answer from the following:
- (a) all are correct
 - (b) (ii) and (iii) are correct
 - (c) only (iv) is correct
 - (d) only (i) and (ii) are correct

19 Define reactants and products in a chemical reaction? 2

OR

Define displacement reaction with an example.

20 Why does wearing more layers of clothing during winter keep us warmer than wearing just one thick piece of clothing? 2

21 The metallic objects do not get charged up on rubbing but non-metallic objects get charged up on rubbing. Justify the sentence. 2

22 List any two advantages of lightning in nature. 2

OR

How does a lightning conductor helpful to protect a tall structure or building.

23 Describe in brief, the sewerage system. State its role in treatment of waste water. 2

- 24 The electric fuse required in all electrical appliances and circuits. Give reason in detail. 2
- 25 Show with help of an example the existence of symbiosis in nature. 2
- 26 The relevant parts of the body of animals are modified in such a manner that it makes it easy for them to eat their food. Justify the statement with two examples of different animals where the relevant body part has been modified to procure food. 2
- 27 Differentiate between an artery and a vein. 2
- 28 Write one chemical reaction of the followings using chemical formula (symbols). 3
- Combination reaction
 - Neutralisation reaction
 - Decomposition reaction

OR

Define neutralization reaction. Write two such chemical reactions using chemical formula.

- 29 Explain in brief, the method of charging a given object by electrical induction. 3
- 30 Write any three major water management practices which will help in reducing wastage of water. 3

OR

Suggest any three ways or practices of saving water at home.

- 31 Define the terms rumen , ruminants , rumination . 3
- 32 Mention the three secretions that are used up by the small intestine for the process of digestion along with their functions . 3
- 33 Draw a neat and diagram of the human excretory system and label the parts 3
- Where urine is formed
 - Where urine is stored.
- 34 a. Describe a simple activity to observe the method of heat transfer in a metal rod. Draw necessary diagram. 5
- b. The water is a poor conductor of heat. How does the water get heated up when put over a flame in a kettle?
- 35 Why blood is needed by all the parts of our body ? 5
- 36 Explain in detail, the principle and working of an electric bell with suitable labelled diagram. 5

OR

a.Explain an activity to demonstrate a simple electromagnet.

b. Suggest all possible ways by which the magnetic strength of an electromagnet can be increased.

- 37 a.Why does air rushes into your body when you inhale and mention the changes that occur in your chest cavity, diaphragm, lungs during inhalation? 5
- b.Name the products during anaerobic respiration .
