

DELHI PUBLIC SCHOOL JAMMU
SESSION (2024-25)
HALF YEARLY EXAMINATION
SAMPLE PAPER

Class: VII

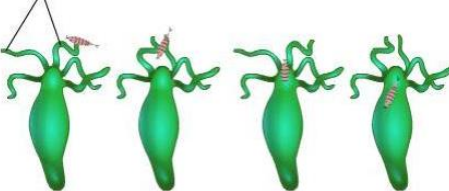

Subject: SCIENCE

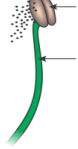
Time: 3 hours

Max. Marks: 80

General Instructions:

- All the questions are compulsory.
- The question paper has 5 sections A, B, C, D and E.
- Section A has 20 Multiple Choice Questions (MCQs) carrying 1 mark each.
- Section B has 7 Short Answer-I (SA-I) type questions carrying 2 marks each.
- Section C has 5 Short Answer-II (SA-II) type questions carrying 3 marks each (50-80 words).
- Section D has 3 Long Answer (LA) type questions carrying 5 marks each (80-120 words).
- Section E has 4 Case-Study based questions (4 marks each) with subparts.
- An internal choice in 1Q of 3 marks and 1Q of 5 marks has been provided.

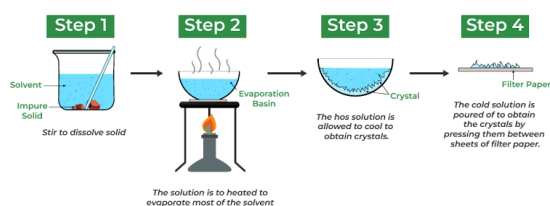
S.No	Section – A Multiple Choice Questions	Mar ks
1	In clinical thermometer, there is a slight bend in the stem just above the bulb called a) mercury bulb b) kink c) mercury level d) narrow tube	1
2	Which one of the following is not a method of asexual reproduction in plants? a) Gamete formation b) spore formation c) budding d) fragmentation	1
3	Which part does multicellular animal hydra uses to entangle small aquatic animals and kill them:  a) mouth b) cilia c) tentacles d) all of these	1
4	The transfer of heat by the process of conduction takes place only in a) Solids b) liquids. c) gases. d) none of these	1
5	Complete the given analogy-Tearing of paper: Physical change:: cooking of food: _____ a) Chemical b) Natural c) Reversible. d) None of these	1
6	A farmer has an apple tree in his garden, that bears sweet apples every year. The farmer wants to add more such apple trees in his garden. Which one of the following processes will allow the tree to produce more of its own kind? a) transplantation b) asexual reproduction c) transpiration d) sexual reproduction	1
7	The reactions in which energy (in the form of heat) is released are called _____ reactions. a) endothermic b) displacement c) combination d) exothermic	1
8	Name an alloy containing iron, nickel, chromium and magnesium. a) Tin b) Germanium. c) Nichrome d) Stainless steel	1
9	Identify the type of thermometer shown below:  a) clinical thermometer b) digital thermometer c) laboratory thermometer d) none of these	1

10	Which of the following is not a part of alimentary canal: a) Small intestine b) Stomach c) Kidney d) Liver	1
11	The symbol for evolution of gas is: a) ↑ b) ↓ c) → d) None of these	1
12	A sudden flow of very large current due to direct contact of a live and a neutral wire is called a) overloading b) overheating. c) short circuit. d) electric circuit	1
13	The cation moves towards _____ during electrolysis. a) anode b) cell c) cathode d) none of these	1
14	Identify the part of a flower shown in the figure shown  a) stigma b) stamen c) ovary d) pistil	1
15	The chemical reaction in which a more reactive element displaces a less reactive element from its compound is called _____ reaction. a) combination b) decomposition c) displacement d) none of these	1
16	The amount of heat produced in a material by an electric current depends on its a) voltage b) resistance c) magnetic field d) none of these	1
(Q17-Q20) Assertion and Reason Based Questions In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as: a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A). b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of (A). c) Assertion (A) is true but reason (R) is false. d) Assertion (A) is false but reason (R) is true.		
17	Assertion: Insulators like wood and plastic are used in making handles of cooking utensils Reason: Insulators do not allow the heat to pass through them.	1
18	Assertion: Chemical changes may be reversible as well as irreversible changes Reason: Physical changes only change the physical properties of the substance	1
19	Assertion: When a fuse gets melted, a new fuse has to be installed in its place. Reason: MCB are being used in place of normal fuses. They can be used for a longer time	1
20	Assertion: The ovary grows to become a fruit, while ovule develops into seeds. Reason: The anther is the part of the flower that contains ovules and acts as the site of fertilization of the ovules.	1
Section-B		
21	Why is dispersal of seeds essential for plants?	2
22	Convert the following: (a) 100°C to °F (b) 86°F to °C	2
23	Why is the magnesium ribbon cleaned with sand paper? What will happen if it is not done?	2
24	Why does an infant, after feeding on milk, often vomit a curd-like substance?	2
25	Write four applications of electromagnet.	2
26	The bursting of crackers is not considered a physical change. Why? Give a reason	2
27	Why do we cover plug pin holes that are within reach of children with sticky tape or a plastic cover when not in use?	2

Section-C		
28	<p>The top surface of a pond gets heated by sunlight. It has been noticed that sunlight cannot reach the bottom of the pond due to dirty water. However, the bottom surface gets slightly warm. How does this water get warm?</p> <p style="text-align: center;">OR</p> <p>Why does the doctor recommend we wash our palms and feet with cold water if we are suffering from a high fever?</p>	3
29	<p>Which of the changes given below are chemical changes? Give a suitable reason for your answer</p> <p>a) Chewing of food b) Photosynthesis in plants c) Burning of petrol</p>	3
30	<p>A coil suspended freely, points in any direction when no current is passing through it. What happens when a current is passed through it? Why does it happen</p>	3
31	<p>Define bisexual flowers, and draw the well labelled diagram of a bisexual or a complete flower and explain the function of its various components.</p>	3
32	<p>If digestion completes in small intestine, then how do the digested nutrient reach the blood?</p>	3
Section-D		
33	<p>a) What is vegetative propagation? b) Explain with the help of diagrams the following methods of vegetative propagation: (i) Cutting (ii) Layering</p> <p style="text-align: center;">OR</p> <p>a) Define dispersal of seed. What are the advantages of seed dispersal? (any two) b) Write any two adaptive features of seed dispersed by with example.</p>	5
34	<p>a) Draw a well labelled diagram to show the movement of food in the oesophagus. b) Explain Assimilation of food.</p>	5
35	<p>What is the relationship between- (a) temperature differences between land and sea, and (b) the formation of land and sea breezes with the help of a diagram.</p>	5
Section-E		
Case Study based Questions		
36	<p><u>Read the following paragraph and answer the following questions</u></p> <p>Amoeba is a microscopic, single -celled organism found in ponds, pools and ditches. It constantly changes its shape by pushing out one or more finger-like projections called pseudopodia or false feet. Pseudopodia are used for locomotion and capturing of food. All the processes of nutrition are performed by the single cell of Amoeba. The tips of the pseudopodia fuse to form a food vacuole. The digestive juices from this surrounding cytoplasm enter the food vacuole and breakdown the food into simple, soluble substances. The digested food present in the food vacuole is absorb directly into the cytoplasm ,which is stored and utilised for its growth, development, multiplication and release of energy. The undigested food is thrown out of the body by the vacuole.</p> <p>a) The finger like projections present in amoeba is known as false feet or_____. (1) i) Vacuole ii) cytoplasm. iii) nucleus. iv) pseudopodia</p> <p>b) The undigested food is thrown out of the body by the (1) i) cytoplasm. ii) cell-wall. iii) vacuole. iv) none of these</p> <p>c) What happens to the digested food absorbed by the cytoplasm? (2)</p>	4

37 Observe the diagram given below and answer the questions that follows

4



- a) The given diagram is a _____ (1)
 (i) Crystallization (ii) Electroplating (iii) Filtration (iv) None of these
- b) Many substances like sugar urea, copper, sulphate, alum and table salt from _____ (1)
 i) acids. ii) crystals. iii) bases. iv) all of these
- c) Define crystallisation. (2)

38 **Read the following paragraph and answer the following questions:**

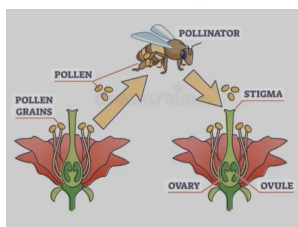
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There are three main effects produced by electric current-heating, chemical and magnetic effect. The amount of heat produced in a material by an electric current depends on its resistance. All the electric heating appliances contain a coil of a high resistance wire. An electric fuse is a safety device which breaks the electric circuit when there is an excessive flow of current in the circuit. It prevents damage to electrical appliances and possible electric fire. A fuse works on the principle of the heating effect of current. When excessive current flows in a household circuit, the thin fuse wire gets over heated, melts and breaks the circuit immediately. The current stops flowing in the circuit and the damage to various electrical appliances is prevented.

- (a) The effects produced by electric current (1)
 i) Heating, magnetic. ii) heating, chemical iii) magnetic, chemical iv) heating, chemical & magnetic
- (b) Name the device which breaks the electric circuit when there is an excessive flow of current in the circuit (1)
 i) electromagnet ii) electric bell iii) electric fuse iv) transformer
- (c) Can damage to various electrical appliances be prevented? (2)

39 2) **Observe the diagram given below and answer the questions that follows:**

4



- a) The type of pollination shown in the above figure is. (1)
 i) self pollination. ii) cross pollination. iii) mutual pollination. iv) none of these
- b) Which of these is not an agent of pollination. (1)
 i) insects. ii) wind. iii) stone. iv) water
- c) Define the process of cross - pollination. (2)

Reflection Box

1. How confident do you feel about your understanding of the topics covered in this assessment?	A) Very Confident	B) Somewhat Confident	C) Not Confident
2. How well do you think you prepared for this assessment?	A) Very Well	B) Somewhat Well	C) Not Well
3. What do you think you could have done differently to improve your performance on this assessment?	A) Studied thoroughly	B) Practiced more	C) Asked for help from the teachers or peers.