



CLASS: IX
DATE: 17/01/2024

MAX. MARKS: 20
TIME: 40 MINUTES

General Instructions:

- i. This question paper consists of 10 questions in 5 sections.
- ii. All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.
- iii. **Section A** consists of six objective type questions carrying 1 mark each.
- iv. **Section B** consists of one very short question carrying 2 marks.
- v. **Section C** consists of one short answer type question carrying 3 marks.
- vi. **Section D** consists of one descriptive question carrying 5 marks.
- vii. **Section E** consists of one case-based question carrying 4 marks with sub-parts.

SECTION – A												
Select and write one most appropriate option out of the four options given for each of the questions 1 to 4												
Q.No	Questions	Marks										
1	Which animal tissue changes the diameter of a blood vessel? (a) Epithelium (b) Connective tissue (c) Nervous tissue (d) Muscular tissue	1										
2	Which type of tissue correctly matches with its location? <table border="1" style="margin: 10px auto; width: 60%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Tissue</th> <th style="width: 50%;">Location</th> </tr> </thead> <tbody> <tr> <td>A) Cuboidal epithelium</td> <td>Lining of trachea</td> </tr> <tr> <td>B) Ligament</td> <td>Joints of limbs</td> </tr> <tr> <td>C) Cartilage</td> <td>Inner ear</td> </tr> <tr> <td>D) Smooth muscle</td> <td>Heart</td> </tr> </tbody> </table> (a) A (b) B (c) C (d) D	Tissue	Location	A) Cuboidal epithelium	Lining of trachea	B) Ligament	Joints of limbs	C) Cartilage	Inner ear	D) Smooth muscle	Heart	1
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A) Cuboidal epithelium	Lining of trachea											
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3	A ship rises when it enters from river to sea, because (a) the force of buoyancy decreases (b) the force of buoyancy increases (c) the volume of ship increases (d) the mass of ship decreases	1										
4	What is the formula unit mass of Potassium carbonate (K_2CO_3)? (a) 114u (b) 138u (c) 98u (d) 68u	1										
<p>Q. no 5 and 6 are Assertion - Reasoning based questions. These consist of two statements – Assertion (A) and Reason (R). Answer these questions by selecting the appropriate option from below: (a) Both A and R are true and R is the correct explanation of A (b) Both A and R are true and R is not the correct explanation of A (c) A is true but R is false (d) A is false but R is true</p>												
5	Assertion (A): The presence of connective tissue in the brain helps in the conduction of nerve impulse. Reason (R): Dendrites of nerve cells receive messages and axons carry message out of a nerve cell.	1										
6	Assertion (A): In water, the ratio of mass of hydrogen to the mass of oxygen is always 1:8 whatever the source of water. Reason (R) : According to law of constant proportion, the elements are always present in definite proportion by mass in a chemical substance.	1										

SECTION – B

7	An element 'Y' has a valency 2: (a) Write the formula of its hydrogen carbonate. (b) Write the formula of its sulphide.	2
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SECTION – C

8	(a) Give the chemical formulae of the following compounds and compute the ratio by mass of the combining elements in each one of them. (i) Ammonia (ii) Carbon monoxide (b) Give an example of a tetraatomic molecule.	3
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SECTION-D

9	(a) A light and a heavy object have the same momentum. What is the ratio of their kinetic energies? Which one has a larger kinetic energy? (b) A ball is dropped from a height of 10 m. If the energy of the ball reduces by 40% after striking the ground, how much high can the ball bounce back? ($g = 10 \text{ m/s}^2$)	5
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SECTION – E

10.	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 33%;">Test</th> <th style="width: 33%;">Patient's value</th> <th style="width: 33%;">Normal value</th> </tr> </thead> <tbody> <tr> <td>RBC count(cells/mmc)</td> <td>2.8</td> <td>3.8-5.2</td> </tr> <tr> <td>Haemoglobin(g/dl)</td> <td>7.5</td> <td>12-16</td> </tr> <tr> <td>Platelet count(number/mmc)</td> <td>285</td> <td>150-400</td> </tr> </tbody> </table> <p>The table given above is the blood test result of an anaemic patient.</p> <p>a) The time taken for clotting of blood in this person is normal. Why? b) In the above blood test result , the number of RBCs and the amount of haemoglobin is less. How are these two related? c) Which component of blood is considered as "Soldiers of our body"? Why?</p> <p style="text-align: center;">OR</p> <p>c) State any four functions of blood.</p> <p style="text-align: center;">*****THE END*****</p>	Test	Patient's value	Normal value	RBC count(cells/mmc)	2.8	3.8-5.2	Haemoglobin(g/dl)	7.5	12-16	Platelet count(number/mmc)	285	150-400	4
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