INDIAN SCHOOL SOHAR

PERIODIC TEST III

SUBJECT: SCIENCE (086)

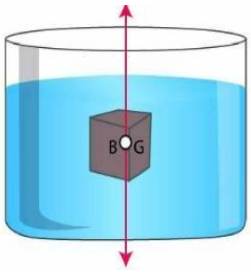
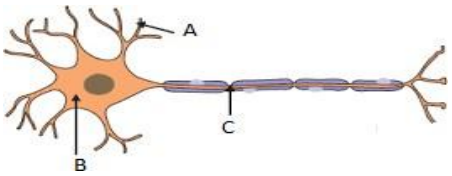
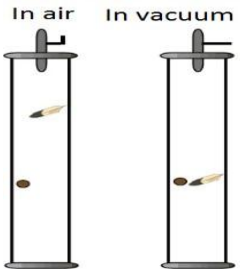
CLASS: IX **MAX MARKS: 20**

DATE: 15.01.2023 **TIME: 40 MINUTES**

General Instructions: **SET 1**

i. This question paper consists of ten questions in 4 sections.
ii. All questions are compulsory.
iii. **Section A** consists of two objective type questions and two assertion-reasons carrying **1 mark** each.
iv. **Section B** consists of three very short answer type questions carrying **2 marks** each.
v. **Section C** consists of two short answer type questions carrying **3 marks** each.
vi. **Section D** consists of one source-based units of assessment of **4 marks** with sub-parts.

SECTION – A Select and write the most appropriate option out of the four options given for each of the questions 1and 2.		
Q.No	**Questions**	**Marks**
1	Identify the molecule with atomicity four. (a) Hydrogen (b) Phosphorus (c) Ozone (d) Methane	1
2	Which one is the correct molecular mass of $C_6H_{12}O_6$? (C =12u, H= 1u, O=16u) (a)180u (b) 29 u (c) 185 u (d) 89 u	1
Q. no 3 and 4 are Assertion - Reasoning based questions. **These consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given 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**		
3	**Assertion (A):** Blood is a fluid connective tissue. **Reason(R):** Blood is a type of tissue which forms the frame work that supports the body.	1
4	**Assertion (A):** Non-striated muscles are smooth and said to be involuntary in nature. **Reason(R):** Non-striated muscles are also called skeletal muscles as they are mostly attached to bones and help in body movement.	1
SECTION – B Q. no. 5-7 are very short answer questions.		
5	(a) An element 'X' has valency equal to 3. What will be its formula with carbonate ion? (b) Write the chemical formula of Magnesium nitride using criss- cross method. **OR** (a) Define polyatomic ion. (b) Write the name of the compound $(NH_4)2SO_4$ and mention the ions present in it.	2
6	Which substance is stored in adipose tissues? How does it help the organisms?	2

7	The figure below shows a body held immersed in a liquid. Study the figure and answer the following questions: (a) Name two forces acting on a body. Give the direction in which they act. (b) Why does an object float or sink when placed on the surface of a liquid? 	2
	SECTION - C Q.no. 8 and 9 are short answer questions.	
8	(a) State the Law of constant proportion. (b)Write down any two postulates of Dalton's atomic theory.	3
9	(a) Identify the given structure and label the parts A, B and C.  (b) Complete the given table. **Sl. No** | **Tendons** | **Ligaments** 1 | (A) | Connects bone to bone 2 | Limited flexibility | (B)	3
	SECTION – D Q.no. 10 is source – based questions with 3 short sub - parts. Internal choice is provided in one of these sub-parts.	
10.	**Answer questions on the basis of your understanding of the following paragraph and the related studied concepts:** Italian Physicist Galileo Galilei found that if there was no air, all the bodies having different masses when dropped simultaneously from the same height would hit the ground at the same time. Another Physicist Robert Boyle placed a coin and a feather in a long glass tube from which air was removed with the help of a vacuum pump. When the tube was inverted both the coin and the feather fell to the bottom of the tube at the same time. All freely falling objects fall towards the earth with the same acceleration. The acceleration produced in all the freely falling bodies is the same, and does not depend upon the mass of the falling body.  (a) Two objects of masses m_1 and m_2 are dropped in vacuum from a height above the surface of the earth ($m_1 > m_2$). Will there be any difference in the time in which the two objects respectively reach the ground and why? (b) How does the weight of an object vary with respect to the radius of the earth? (c) An object is dropped from 180m high. Find the time taken by it to reach the ground and also the velocity of the object just before touching the ground. **OR** (c)Mass of an object is 50 kg. Find its weight on the earth and on the moon.	4
	*******THE END*******	

INDIAN SCHOOL SOHAR

PERIODIC TEST III

SUBJECT: SCIENCE (086)

CLASS: IX **MAX MARKS: 20**

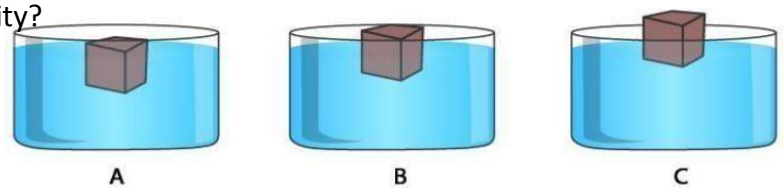
DATE: 15.01.2023 **TIME: 40 MINUTES**

General Instructions: **SET 2**

i. This question paper consists of ten questions in 4 sections.
ii. All questions are compulsory.
iii. **Section A** consists of two objective type questions and two assertion-reasons carrying 1 mark each.
iv. **Section B** consists of three very short answer type questions carrying 2 marks each.
v. **Section C** consists of two short answer type questions carrying 3 marks each.
vi. **Section D** consists of one source-based units of assessment of 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 1and 2.

Q.No	Questions	Marks
1	Identify the molecule with atomicity 5. (a)Hydrogen (b) Phosphorus (c) Ozone (d) Methane	1
2	Which one is the correct molecular mass of C_2H_5OH? (C =12u, H= 1u, O=16u) (a) 64 u (b) 46 u (c) 33 u (d) 34 u	1
Q. no 3 and 4 are Assertion - Reasoning based questions. **These consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given 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**		
3	**Assertion (A):** Areolar connective tissue supports internal organs and helps in tissue repair. **Reason (R):** Areolar connective tissue acts as an insulator.	1
4	**Assertion (A):** The movements of alimentary canal, iris of the eye and bronchi of lungs are not under our will. **Reason (R):** These are controlled by voluntary muscles.	1
SECTION – B (Q. no. 5-7 is very short answer questions.)		
5	(i) An element 'X' has valency equal to 2. What will be its formula with phosphate ion? (ii) Write the chemical formula of Sodium carbonate using criss- cross method. **OR** (i) Define valency. (ii) Write the name of the compound NH_4NO_3 and mention the ions present in it.	2
6	Mention the composition of blood and any two functions.	2
7	(a) The figure given below shows the same block of wood floating in three different liquids A, B and C of densities D_1, D_2, and D_3 respectively. Which liquid has the i) least density and (b) ii) highest density?  A B C (c) How does the density of an object determine whether it will float or sink in a fluid?	2

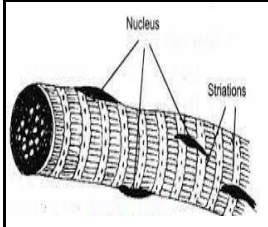
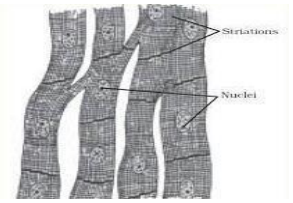
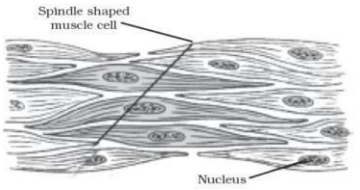
SECTION - C

Q.no. 8 and 9 are short answer questions.

8 (i) State the Law of conservation of mass. 3

(ii) Write down any two postulates of Dalton's atomic theory

9 (a) Identify the given tissues labeled 1, 2 and 3. 3

1	2	3
		

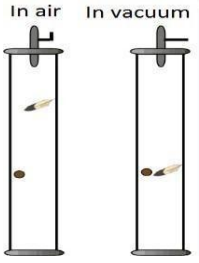
(b) Complete the given table.

Sl.No	Types ofepithelium	Location
1	Squamous epithelium	
2	Columnar epithelium	
3	Cuboidal epithelium	

SECTION – D

Q.no. 10 is source – based questions with 3 short sub - parts. Internal choice is provided in one of these sub-parts.

10. **Answer questions on the basis of your understanding of the following paragraph and the related studied concepts:** 4



Italian Physicist Galileo Galilei found that if there was no air, all the bodies having different masses when dropped simultaneously from the same height would hit the ground at the same time.

Another Physicist Robert Boyle placed a coin and a feather in a long glass tube from which air was removed with the help of a vacuum pump. When the tube was inverted both the coin and the feather fell to the bottom of the tube at the same time. All freely falling objects fall towards the earth with the same acceleration. The acceleration produced in all the freely falling bodies is the same, and does not depend upon the mass of the falling body.

(a) Two objects of masses m_1 and m_2 are dropped in vacuum from a height above the surface of the earth ($m_1 < m_2$).Will there be any difference in the time in which the two objects respectivelyreach the ground and why?

(b) The weight of a body changes if it is taken from the equator to the poles. Give reason.

(c) Mass of an object is 20kg.Find its weight on the earth and on the moon.

OR

(c) A ball is thrown vertically upwards with a velocity of 98m/s. Calculate the maximum height to which it rises and the total time it takes to return to the surface of the earth.

********THE END*********