Class : 9	Subject : Science Medium : English	Marks : 80 Time : 3 Hours

Information to be filled by the Student

Name of the Student : _____

Student SATS No : ☐☐☐☐☐☐☐☐☐☐   **Signature of the Student :** _____

Information to be filled by the Room Invigilator

School DISE Code : ☐☐☐☐☐☐☐☐☐☐☐☐

School Name : _____

Cluster : _____   **Block :** _____   **District :** _____

School Type : Govt. ☐   **Aided** ☐   **Un-aided** ☐

(Put "✓" mark for applicable information)

Signature of the Room Invigilator : _____

Information to be filled by the Evaluator at the time of evaluation

Question Number	Obtained marks	Question Number	Obtained marks	Question Number	Obtained marks
1		14		27	
2		15		28	
3		16		29	
4		17		30	
5		18		31	
6		19		32	
7		20		33	
8		21		34	
9		22		35	
10		23		36	
11		24		37	
12		25		38	
13		26			
Total marks		**Total marks**		**Total marks**	
				Grand Total	

Total marks obtained (in words) : _____

Signature of the Evaluator : _____

(PART A - PHYSICS)

I. **Four alternatives are given for each of the following questions / incomplete statements. Choose the correct alternative and write the complete answer along with the correct option.** **[3 x 1 = 3]**

1. SI unit of force is,

    A. joule   B. ampere   C. newton   D. hertz

Answer: ☐ _____

2. The value of acceleration due to gravity of earth is

    A. 8.8 ms^{-2} B. 9 ms^{-2} C. 9.8 ms^{-2} D. 10.8 ms^{2}

Answer: ☐ _____

3. The audible range of sound in human is

    A. 20Hz - 20000 Hz   B. 200Hz - 2000 Hz

    C. 20 KHz - 200KHz   D. 2Hz - 20 Hz

Answer: ☐ _____

II. **Answer the following questions.** **[2 x 1 = 2]**

4. The weight of an object on earth is 36N. What would be its weight when measured on the surface of the moon?

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5. Suggest a method to decrease reverberation.

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III. Answer the following questions.   **[3 x 2 = 6]**

6. The Motion of two motor vehicles, are given in the graphs A and B. Which graph is showing the reach of 20 km in shortest time and why?

(A)   (B)

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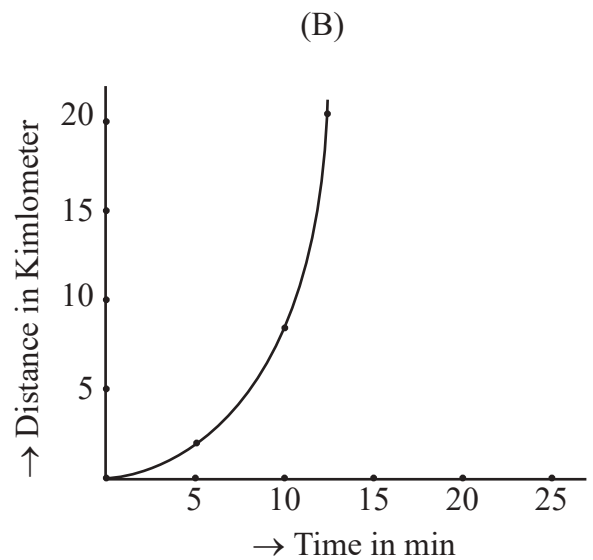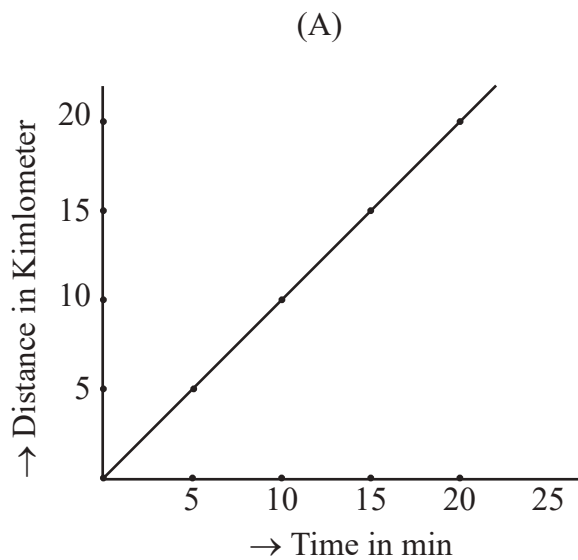
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7. Define Kinetic energy and Potential energy.

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8. What is an echo? What is the minimum distance to hear an echo?

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IV. Answer the following questions. [4 x 3 = 12]

9. Draw or sketch a distance-time graph of a moving bus with the help of following data.

   a. Bus travels in a uniform motion.

   b. It reaches a distance of 20 km in 40 minutes.

   c. It takes 80 minutes to travel a distance of 40 km.

10. Car falls of a ledge and drops to the ground in 1 second. Let g = be 10 ms⁻²

    a. What is its speed on striking the ground?

    b. What is its average speed during the one second?

    c. How high is the ledge from the ground?

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11. The ship of a nation drowned in a deep sea. To detect the sunken ship another ship was sent to that place. Then,

    1. Name the device used to detect the sunken ship.

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2. Write the Abbreviation of that device.

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3. How it works? Explain.

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12. An object of Mass 15 kg is at a certain height above the ground. If the potential energy of the object in 450 J find the height at which the object is with respect to the ground $(g = 10ms^2)$.

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V. Answer the following questions. [1 x 4 = 4]

13. State Newtons 3 laws of motion and give an example for 3rd law of Motion.

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(PART B - CHEMISTRY)

VI. Four alternatives are given for each of the following questions / incomplete statements. Choose the correct alternative and write the complete answer along with the correct option. [4 x 1 = 4]

14. Compound among the following is,

   A. Hydrogen   B. Oxygen   C. Water   D. Gold.

Answer: ☐ _____

15. This is the major gaseous component of the atmosphere (air).

    A. Oxygen   B. Carbon dioxide

    C. Nitrogen   D. Argon

Answer: ☐ _____

VII. Answer the following questions. [4 x 1 = 4]

16. Wearing Cotton clothes during summer is good. Why?

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17. Suspension is unstable. Why?

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18. What are isotopes?

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19. How acid rain is formed?

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VIII.Answer the following questions. [3 x 2 = 6]

20. What is melting point? Mention the melting point of ice.

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21. Explain the proposals of Thomson's model of an atom.

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22. Part of oxygen cycle in the nature is given below. Which processes are represented by 1, 2, 3 and 4.

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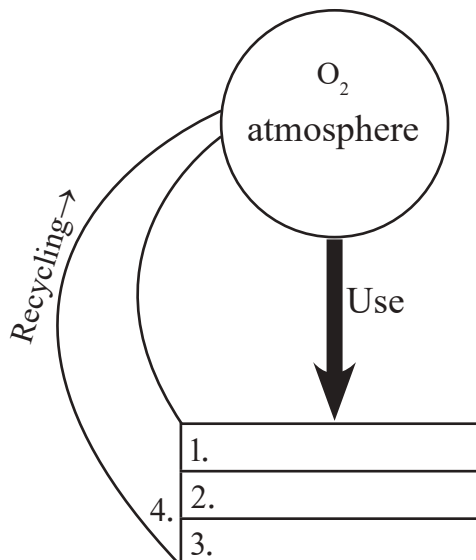
IX. Answer the following questions. [3 x 3 = 9]

23. Draw the arrangements of apparatus showing the sublimation of ammonium chloride.

24. Observe the boiling points of two liquids of a mixture given in below table.

A	78°c
B	100°c

Which method do you suggest to seperate these liquid and why ?

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25. The electronic configuration of an element is $1S^2, 2S^2 2P^6$. Write the schematic diagram its atomic structure and name the element. How many electrons are present in K and L shell ?

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X. Answer the following questions. [1 x 4 = 4]

26. Find out the molecular mass of calcium chloride and Potassium carbonate using given data (atomic masses Ca=40, C=12 CL-35.5, 0=16 K = 39).

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(PART C - BIOLOGY)

VI. **Four alternatives are given for each of the following questions / incomplete statements. Choose the correct alternative and write the complete answer along with the correct option.** **[3 x 1 = 3]**

27. Cell organell called Powerhouse of the cell is

    A. Mitochondria B. Plastids   C. Vacuole   D. Lysosome

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28. This is an example for air borne disease.

    A. Malaria   B. Cold   C. Rabies   D. Leprosy

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29. The animals reared for the purpose of milk production.

    A. Sheep & Hen   B. Cow and Buffalo

    C. Goat & Duck   D. Cow & Fish

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XII. Answer the following questions. **[2 x 1 = 2]**

30. Write any two situations of spreading AIDS virus.

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31. Name the local variety of bees used for honey production

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XIII.Answer the following questions.   **[2 x 2 = 4]**

32. Draw the diagram Showing the longitudinal section of phloem tissue and label the following parts

    a) Sieve plate   b) companion cells.

33. Draw the diagram of Amoeba and label the following parts

    A. Pseudopodia   B. Contratile Vacuole

XIV.Answer the following questions. **[3 x 2 = 6]**

34. Draw the diagram of neuron and label the following Parts

    A. Dendrite   B. Axon

35. a) Common cold is called acute disease but elephantiasis is chronic. Why?

b) High blood pressure is non-infectious disease. Why?

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XV. Answer the following questions.   **[2 x 4 = 8]**

36. Write the difference between manures and fertilizers. Write any two disadvantages of using fertilizers.

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37. a) "Circulatory system of cockroach is not well developed"- Justify.

b) Having both gills and lungs as respiratory organ is advantageous to the frog. How?

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XVI. Answer the following questions.   **[1 x 5 = 5]**

38. a) Write any three differences between plant cell and animal cell.

b) Some dried raisins are put in plain water for some time and then in concentrated sugar solution. What are the changes you observe?

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