AL KHOZAMA INTERNATIONAL SCHOOL,DAMMAM

Affiliated to CBSE – New Delhi, No:5730019

Pre-Mid Term Examination (2017 -2018)

Subject:Science

Date:11/06/2017   **Set:A**   **Time: 3 Hours**

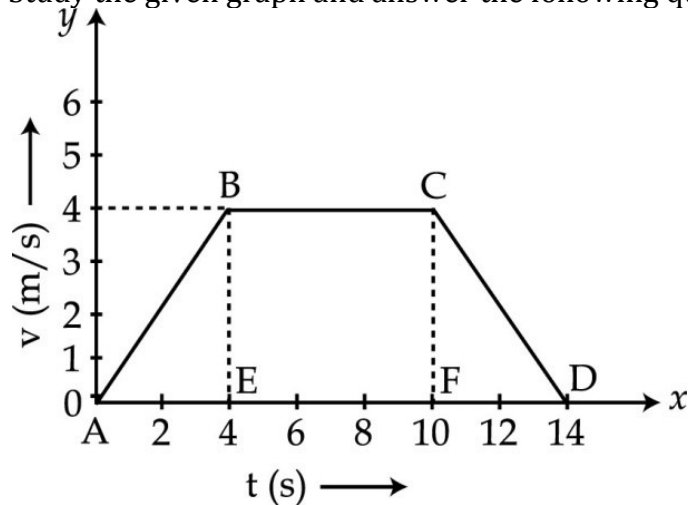**Class: 9**   **Max. Marks: 80**

Instructions to the Candidates:

1 The question paper has 27questions in all. All questions are compulsory.

2 Questions from serial no 1 and 2 are very short answer questions. Each question

   Carries1mark.

3 Questions from serial no 3 to 5 are of 2 marks questions.

4 Questions from serial no 6 to 15 are of 3 marks questions.

5 Questions from serial no 16 to 21 are of 5 marks.

6 Questions from serial no 22 to 27 are of 2 marks questions.They are practical based questions.

1.	What is dry ice? How is it obtained?	1
2.	State first law of motion.	1
3.	Find out the mass by volume percentage of 20% solution of HCl acid.(Density =1.10gmL^{-1})	2
4.	(a) Why are the wheels of vehicle provided with mud guards? (b) A cricket player lowers his hand while catching a ball. Why?	2
5.	How is endoplasmic reticulum important for membrane biosynthesis?	2
6.	Explain the methods of separation and uses: Centrifugation , Chromatography.	3
7.	Compare the characteristics of suspension, true solution and colloid based on Particle size, Appearance and Nature.	3
8.	Define Latent heat of fusion. Which is more effective in cooling; Ice or water? Explain.	3
9.	What happens to a cell when placed in the following solution: a. Hypotonic solution b. Hypertonic solution	3

10.	What do you mean by endocytosis? How does Amoeba obtain its food?	3

11. Raghu switched from traditional to modern farming practices in which he used large mounts of fertilizers and pesticides to gain an increase in profit. **3**
a) What are the adverse effects of modern farming?
b) What is soil pollution?
c) What alternative method could be more beneficial for farming?

12. Carbon dioxide is necessary for plants. Why do we consider it as a pollutant? **3**

13. Study the given graph and answer the following questions. **3**

     (i)   Which part of the graph shows accelerated motion ?
     (ii)   Which part of the graph shows retarded motion ?
     (iii)   Calculate the distance travelled by the body in first 4 seconds of journey graphically ?

14. Neetu advised her father to reduce the speed and wear seat belts while driving. **3**
(a) Describe the value shown by Neetu.
(b) Explain why it is advised to wear seat belts while driving.
(c) Road accidents at high speeds are very much worse than accidents at low speeds. State the reason.

15. A man weighing 60 kg runs along the rails with a velocity of 18 kmh⁻1 and jumps into a car of mass 1 quintal (100 kg) standing on the rails. Calculate the velocity with which car will start travelling along the rails. **3**

16. Give reasons: **5**
     a. A gas exerts pressure on the walls of the container.
     b. Water kept in earthen pot is cool during summer.
     c. We see water droplets on tumbler containing cold water as soon as it is kept outside.
     d. We are able to sip hot tea faster from a saucer than a cup.
     e. LPG can be easily transportable.

17. Mention the functions of following cell organelles with a labeled diagram: 5
    a)Nucleus
    b)Endoplasmic reticulum
    c) Mitochondria

18. Describe the Nitrogen cycle with the help of a diagram.   5

19. (i) Name the property of bodies to resist a change in their velocity.   5
    (ii) What is relationship between force and acceleration?
    (iii)What name is given to the product of mass and velocity of a body?
    (iv) Which physical quantity corresponds to the rate of change of momentum?
    (v) Name the principle on which a rocket works.

20. Account for the following :   5
    (a) Name the quantity which is measured by the area occupied below the velocity-time graph.
    (b) An object is moving in a certain direction with acceleration in the perpendicular directions.
    (c) Under what condition is the magnitude of average velocity of an object equal to its average speed?
    (d) An example of uniformly accelerated motion.
    (e) A body is moving along a circular path of radius (R). What will be the distance and displacement of the body when it completes half revolution?

21. (a) Derive position-time relation using graphical method.   5
    (b) A car accelerates uniformly from 18 km/h to 36 km/h in 5 seconds. Calculate the acceleration and the distance covered by the car in that time.

22. A mixture of sand, ammonium chloride and iodine is heated in a china dish.   2
        a. What is changing into vapors and why?
        b. What is left in china dish?

23. Four students were asked to add water to glucose powder, milk , sand and soil separately   2
    in four beakers. Classify the mixture as true solution, colloid and suspension.

24. Describe what you will see when a mixture of iron and sulphur is heated in a hard glass   2
    tube.

25. What are the major difference between cheek cells and onion peel cells?   2

26. Why should water or glycerin be used for keeping or mounting the materials?   2

27. A cell is a building unit of an organism. Comment.   2

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