



ANANDALAYA  
PERIODIC TEST - 2  
Class : IX

Subject: Science  
Date: 24/09/2019

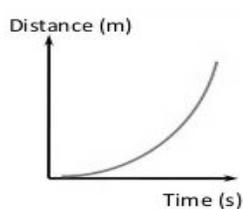
M.M : 60  
Time : 2½ Hours

**General Instructions:**

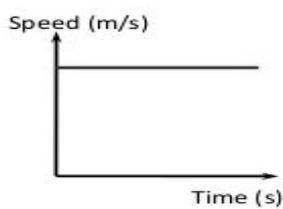
1. All questions are compulsory. There are 24 questions in all.
2. Question numbers 1 to 12 are objective type questions and carry 1 mark each.
3. Question number 13 to 18 are short answer questions and carry 3 marks each.
4. Question number 19 to 24 are long answer questions and carry 5 marks each.

1. 1 kg.wt is equal to (1)  
(a) 98 N (b) 9.8 N (c) 0.98 N (d) 980 N

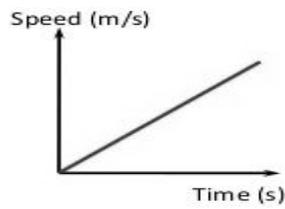
2. Which graph depicts uniform motion of a moving object? (1)



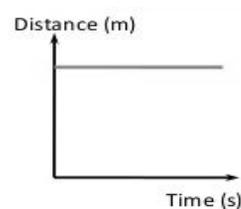
(a)



(b)



(c)



(d)

3. Camphor can be purified by: (1)  
(a) Distillation (b) Filtration (c) Sedimentation (d) Sublimation

4. Which of the following will show Tyndall effect: (1)  
(a) Salt solution (b) Starch solution  
(c) Copper sulphate solution (d) Sugar solution

5. Aerenchyma tissue is found in (1)  
(a) the leaves of cacti (b) petiole of aquatic plants  
(c) roots of mangroves (d) stem of herbs

6. The animal tissue that works untiringly, involuntary, are cylindrical and branched are: (1)  
(a) muscle tissue (b) nerve tissue  
(c) cardiac tissue (d) Adipose tissue

7. The moving bicycle comes to rest when we stop pedaling because of \_\_\_\_\_. (1)  
OR  
Action and reaction do not cancel each other as they can act on \_\_\_\_\_ objects.

8. Read the statements carefully and choose the correct alternative from the following: (1)  
Assertion: Common salt is obtained from sea water by evaporation  
Reason: Common salt is a compound.  
(a) Both the assertion and the reason are correct and the reason is the correct explanation of the assertion.

- (b) Both the assertion and the reason are correct but the reason is not the correct explanation of the assertion
- (c) The assertion is true but the reason is false.
- (d) The statement of the assertion is false but the reason is true.

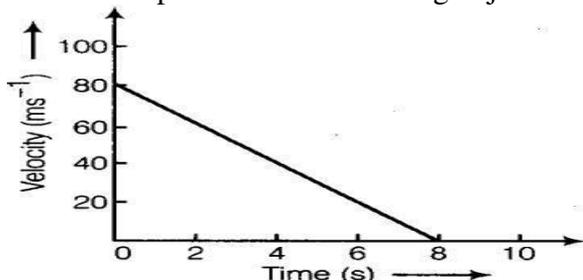
9. Read the statements carefully and choose the correct alternative from the following: (1)

Assertion: Blood is the vital fluid in the body but is considered as a tissue.

Reason: It is made of similar cells and altogether it performs the common function of conduction.

- (a) Both the assertion and the reason are correct and the reason is the correct explanation of the assertion.
- (b) Both the assertion and the reason are correct but the reason is not the correct explanation of the assertion
- (c) The assertion is true but the reason is false.
- (d) The statement of the assertion is false but the reason is true.

10. Find the displacement of a moving object in 8 seconds from the graph given. (1)



11. How can you convert a saturated solution into unsaturated solution without adding solvent into it? (1)

12. In the potato cup experiment which is the process that helps in the rise of water in the cup? (1)

- 13. (a) Write any two differences between speed and velocity. (3)
- (b) How long will it take for a body accelerating by  $2\text{ms}^{-2}$  to gain a velocity of  $10\text{ms}^{-1}$ , starting from rest?

14. Give reason along with the principle applied. (3)

- (a) Glass wares are packed in thermocol box or straw.
- (b) It is dangerous to get down from a moving bus.
- (c) A swimmer is able to swim in water.

15. Why inter-conversion of states of matter is considered as a physical change? Give three reasons to justify your answer. (3)

OR

- (a) Under which category of mixtures you will classify alloys and why?
- (b) A solution is always a liquid. Comment
- (c) Can a solution be heterogeneous?

16. You are provided with a mixture containing sand, iron filing, ammonium chloride and sodium chloride. Describe the procedure you would use to separate these constituents from the mixture. (3)

17. Name the following cell organelles and mention their specific functions: (3)

- (a) Suicidal bag of the cell
- (b) Power house of the cell
- (c) Controlling centre of the cell.

18. "All the plant cells are not similar in structure and function". From the structure of T.S. of stem that you studied under the microscope, explain three types of cells in it. (3)
19. (a) State and prove the law of conservation of momentum along with the condition. (5)  
 (b) A mass of 2kg moving with a speed of  $100\text{ms}^{-1}$  collides and sticks to a mass of 3kg which was at rest. Calculate the final velocity of the combined mass.
20. (i) Two masses  $m_1$  and  $m_2$  are separated by a distance  $r$ . Find (5)  
 (a) the ratio of the forces acting on each of them.  
 (b) ratio of their accelerations.  
 (c) if  $m_1 = 10^{20} m_2$ , which mass will be seen to move. Why?  
 (ii) A mass of 6 kg is given. Find its weight,  
 (a) at the centre of the earth and (b) on the surface of the moon.
21. (a) Write any three differences between a chemical compound and a mixture. (5)  
 (b) A solution contains 50 g of sugar in 350 g of water. Calculate the concentration of solution in terms of mass by mass percent of the solution.
22. (a) The solubility of salts A, B, C and D ( in grams per 100 g of of solvent ) at certain temperature as determined are shown below: (5)

Salt	Solubility			
	at $20^{\circ}\text{C}$	at $30^{\circ}\text{C}$	at $40^{\circ}\text{C}$	at $50^{\circ}\text{C}$
A	37	39	41	48
B	35	37	40	43
C	34	35	36	37
D	32	47	62	84

- (i) Describe the effect of temperature on the solubility of each salt.  
 (ii) What mass of A is required to produce its saturation solution in 25g of water at  $30^{\circ}\text{C}$ ?  
 (iii) Which of the salt is most soluble in water at  $20^{\circ}\text{C}$ ?
- (b) Classify the following into physical or chemical change:  
 (i) Drying of a shirt in the sun.  
 (ii) Burning of kerosene
23. Name the following: (5)  
 (a) The tissue that transports food in plants  
 (b) The tissue that stores fat in the body  
 (c) The tissue that connects a bone to a bone  
 (d) The tissue that connects muscle to a bone  
 (e) The tissue that forms the inner lining of the mouth.
24. Write any five salient features of sponges which makes them belong to Phylum Porifera. (5)

OR

Write any five salient features of the phylum Platyhelminthes.