ST. XAVIER'S SENIOR SECONDARY SCHOOL, DELHI – 110054

Class 9 | Time : 1 hr.

23-7-2014 | Formative Assessment I in SCIENCE | M. Marks : 20

PHYSICS (M. Marks : 07; Time : 20 mts.)

1. Give an example where a body appears to be at rest but actually it is in motion. (½)
2. A body is moving with a velocity of 15 m/s .If the motion is uniform what will be velocity after 10 s? (½)
3. Define velocity. Give an example where average velocity is zero in spite of non zero speed. (1)
4. Differentiate uniform & non uniform acceleration. (1)
5. A particle moves 3 m north then 4 m east & finally 6m south. Calculate distance travelled & displacement. Under what situation distance is equal to magnitude of displacement. (2)
6. What do you mean by retardation? A body starts rolling over a horizontal surface with initial velocity of 0.5 m/s^2 .How much time will it take to stop . (2)

CHEMISTRY (M. Marks : 07; Time : 20 mts.)

1. Define the following terms :-
   a) Latent heat of fusion b) Diffusion (1)
2. Write an activity to show that particles of matter are continuously moving. (1)
3. Differentiate between boiling and evaporation. (two points only) (1)
4. a) Convert 270 K to Celsius scale.
   b) The boiling point of water is 100^0C, convert it to Kelvin scale.
   c) Give any two factors which affect evaporation . (2)
5. Give reason for the following :-
   a) Sponge is a solid but it can be compressed.
   b) We can easily move our hand in air but to move our hand through a solid we need a karate expert.
   c) Gases exert pressure on the walls of the container.
   d) We wear cotton clothes in summer season. (2)

BIOLOGY (M. Marks : 06; Time : 20 mts.)

1. Give reasons :- (½x2=1)
   a) Mitochondria and chloroplasts are semi- autonomous cell organelles.
   b) A drop of ink is placed gently at the base of the beaker containing water by means of a dropper and water becomes uniformly coloured.
2. What would happen to a cell if it is placed in sugar solution ? Name the process responsible for it. (1)
3. What permits the cells of plants,fungi and bacteria to withstand very dilute external media without bursting? (1)
4. Differentiate between Prokaryotic and Eukaryotic cell. (any two points) (1)
5. State the functions of the following :- (1)
   a) Chloroplast b) B Chromoplast
6. Draw a neat and labelled diagram of Nucleus. (any four labellings) (1)

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