



FACULTY HIGHER SECONDARY SCHOOL
SAMPLE PAPER - 2019-20
CLASS - IX
SUB- SCIENCE
MARKS -50

A. Choose the correct option

(1x15=15)

1. A body moving with uniform velocity has :
 (a) Uniform acceleration (b) negative acceleration
 (c) zero acceleration (d) uniform retardation
2. Which of the following substances show sublimation?
 (a) camphor (b) naphthalene balls (c) ammonium chloride (d) all of these
3. A particle is moving in a circular path of diameter 20m. Distance travelled by it in two rounds is :
 (a) 30π (b) 20π (c) 40π (d) π
4. What is known as the change in position of an object ?
 (a) velocity (b) speed (c) displacement (d) none of these
5. In 12 minutes a car whose speed is 35km/hr travels a distance of :
 (a) 7km (b) 3.5km (c) 14km (d) 28km
6. Which of the following has the the highest kinetic energy ?
 (a) Particles of ice at 0° (b) Particles of water at 0°
 (c) Particles of water at 100° (d) Particles of steam at 100° .
7. Which of the following materials is not a pure substance ?
 (a) ice (b) milk (c) sodium chloride (d) mercury
8. When the V-t graph is parallel to x- axis , the body is :
 (a) At rest (b) having constant velocity
 (b) having uniform acceleration (d) having uniform retardation.

9. Factors affecting rate of evaporation are:
 (a) surface area (b) temperature and humidity
 (c) only (b) (d) both (a)&(b)
10. Which of the followings is not a chemical change:
 (a) formation of curd (b) burning of LPG
 (c) dissolving sugar in water (d) rusting of copper
11. The mode of nutrition in *Rhizopus*-
 a) Autotrophic c) Saprophytic
 b) Holozoic d) Parasitic
12. Female cockroach is identified by the absence of -
 a) Anal style c) Sternum
 b) Anal cerci d) Antennae
13. Which fin is responsible for changing direction in fishes
 a) Anal c) Caudal
 b) Pectoral d) Pelvic
14. Common cold is a -
 a) Acute Disease c) Infectious Disease
 b) Chronic Disease d) Both (a) and (c)
15. Of the following which is not a bacterial disease-
 a) Anthrax c) Malaria
 b) Cholera d) Dengue

B. Answer the following questions:

1. Give an example of a body having uniform circular motion. Will it be accelerated? Give reason for your answer. (2)

Ans: Ex: Motion of planets around the sun , an athlete moving along a circular path. (or any other)

Yes, it will be accelerated because at every point of its motion , it changes its velocity due to continuous change in its direction.

2. Give reason why we feel a cooling sensation if we pour some alcohol on our palm. (2)

3. Is water an element or a compound ? Give reason in support of your answer. (2)

4. Give four basic identifying characteristics of the group Pteridophyta . (2)

5. Differentiate between *Osteichthyes* and *Chondrichthyes* . (2)

4. Copper is a metal whereas sulphur is a non metal. Justify the statement. (3)

5. A car starts from rest and acquires a velocity of 54km/h in 2 seconds. Find :- (i) the acceleration
(ii) distance travelled by car assume motion of car is uniform. (3)

Ans : Given : $u = 0$

$$v = 54\text{km/h} = 54 \times 1000\text{m}/3600\text{s} \\ = 15\text{m/s}$$

$$t = 2\text{sec}$$

(i) We have : $a = \frac{v-u}{t} = \frac{15-0}{2} = 7.5 \text{ ms}^{-2}$

(ii) Using 2nd equation of motion , we have :

$$S = ut + \frac{1}{2} a t^2 \\ = (0 \times 2) + \left(\frac{1}{2} \times 7.5 \times 2 \times 2\right) \\ = 15\text{m.}$$

6. Differentiate between evaporation and boiling. (3)

7. Justify why antibiotics does not work against viral infections. (3)

8. All persons in an affected area do not suffer with same disease . Give the reason. (3)

Answer: Human body has specialized mechanism to protect against any foreign particles or organisms that enters the body. Such mechanism to resist disease is known as immunity which is controlled over by individual's immune system. Immune system includes two types of white blood cells B and T-Lymphocytes. Infection by any kind of agents causes release of antibodies by the lymphocyte cells . The ability to release antibodies by the lymphocytes differ from individual to individual. Persons having ability to produce more antibodies can resist diseases easily than those with less immunity strength.

9. Derive the first and second equations of motion graphically. (5)

10. a) What do you mean by Binomial nomenclature?

b) Give the 4 postulates with the help of one example.

c) What is its significance? (5)