



RAMAGYA SCHOOL, NOIDA
XI/Science/2017-18
OLYMPIAD PRACTICE WORKSHEET

1. If proton (p^+) number of an element changes,
 - a. it will become an isotope
 - b. it will become another element
 - c. it will become an electrolyte
 - b. it will sublime immediately

2. In periodic table, period number indicates number of
 - a. Neutrons
 - b. Proton
 - c. Electrons
 - d. Photons

3. Chlorine's (Cl) relative atomic mass is 35.5. this half number is due to isotopes
 - a. a half proton
 - b. a half neutron
 - c. a half electron

4. Purpose of a mass spectrometer is to
 - a. determine charge of a particle
 - b. determine particles
 - c. determine mass of an atom
 - d. provide data for data loggers

5. Number of electrons (e^-) in phosphorus (P) is 15. valence electrons shall be
 - a. 2
 - b. 8
 - c. 5
 - d. 4

6. The distance (s) in metres travelled by a particle is related to time (t) in seconds by the equation of motion $-S = 10t + 4t^2$. What is the initial velocity of the body?
 - a. 10 m/s
 - b. 6 m/s
 - c. 4 m/s
 - d. 10 m/s²

7. For the equation $-S = 10t + 4t^2$ what is the acceleration of the body?
 - a. 1. 8 m/s²
 - b. 2. 10 m/s²
 - c. 3. 4 m/s²
 - d. 4. 8 m/s

8. A body moving along a straight line at 20 m/s decelerates at the rate of 4 m/s^2 . After 2 seconds its speed will be equal to
- 1.8 m/s
 - 2.12 m/s
 - 3.16 m/s
 - 12 m/s
9. An object moving with a speed of 5 m/s comes to rest in 10 s, after the brakes are applied. What is the initial velocity?
- Zero
 - 2.5 m/s
 - 3.15 m/s
 - 4.50 m/s
10. A body moving along a straight line at 40 m/s undergoes an acceleration of 4 m/s^2 . After 10 seconds its speed will be
- 20 m/s
 - 28 m/s
 - 16 m/s
 - 80m/s
11. Retardation is _____.
- negative acceleration
 - positive acceleration
 - uniform acceleration
 - variable acceleration
12. When an object is moving with uniform velocity, what is its acceleration?
- Zero
 - Uniform
 - non-uniform
 - Negative
13. In the case of a rectilinear uniform motion, distance-time graph is a
- Parabola
 - straight line
 - curved line
 - Rectangle

14. When a graph of one quantity versus another results in a straight line, the quantities are .

- a. directly proportional
- b. constant
- c. inversely proportional
- d. independent of each other

15. Name the physical quantity which we get from a S-t graph.

- a. Speed
- b. Displacement
- c. Distance
- d. Time

16. What is the distance covered by a car in 5 h if it is moving with a speed of 35 km/h?

- a. 175 km
- b. 150 km
- c. 7 km
- d. 1750 km

17. A butterfly goes through which process below:

- a. flex
- b. complete metamorphosis
- c. radiate
- d. incomplete metamorphosis
- e. flux

18 Fungi are:

- a. heterotrophic
- b. eukaryotic
- c. made of hyphae
- d. saprobes
- e. all of the above

19. Which of the following phylogenetic groups within the animal kingdom encompasses all the others in the list?

- a. rotifera
- b. deuterostomes
- c. bilateria
- d. arthropoda
- e. protostomes

20. Bilateral symmetry in the animal kingdom is best correlated with:

- A. an ability to sense equally in all directions
- B. an ability to capture food from a sessile position
- C. symbiotic relationships
- D. ventral and dorsal differentiation
- E. motility and active predation and escape