



RAMAGYA SCHOOL, NOIDA
IX/SCIENCE/2017-18
OLYMPIAD PRACTICE WORKSHEET

1. Latent heat of fusion is the amount of heat energy required to change the state of
 - a. one Kg of solid to liquid state at its melting point
 - b. one tonne of solid to liquid state at its melting point
 - c. one Kg of solid to liquid state at its boiling point
 - d. one tonne of liquid to gas state at its boiling point

2. Which one of the following is a pure matter?
 - a. Ice c. Pure Milk
 - b. Iron d. All

3. For making carbon monoxide, 3 g of carbon will require how many grams of oxygen?
 - a. 4 b. 16 c. 12 d. 8

4. What is an isotope of an atom?
 - a. having same atomic number but different mass number
 - b. having same mass number but different atomic number
 - c. having same atomic and mass number but different electrons
 - d. having same number of neutrons

6. What will happen if plasma membrane of a cell punctures?
 - a. it will repair by itself
 - b. an adjacent cell merges with it and shares its membrane
 - c. the cell will die
 - d. nothing will happen

7. What is the function of phloem tissue
 - a. To carry sugar and other organic nutrients made by the leaves to other parts of the plant
 - b. To carry water and other minerals from the root to the plant
 - c. To receive and conduct impulse
 - d. To contract and expand when required

8. Why pulling is easier than pushing?
 - a. Actually pushing is easier as one can apply extra effort through legs
 - b. Pulling is easier as the vertical component of force reduces the apparent weight and thus the frictional force
 - c. pushing is easier because the vertical component reduces the normal reaction
 - d. the effort required is same in both

9. Why does one has to wear safety belt while driving a car?
- to prevent accidents
 - one should not hit the dash board if the brake had to be applied suddenly or car hits an obstruction
 - one should not fall off the car if the door opens suddenly
 - none of the above
10. Why a person falling on a soft cushion does not get hurt?
- because the cushion is soft
 - the energy is absorbed by the cushion
 - body momentum is distributed on a wider area
 - the time taken for the body to come to rest is delayed due to the cushioning effect
11. Two objects of 55 Kg and 60 Kg moving at a velocity of 6 and 5 m/sec in opposite direction and gets entangled. The entangled mass will move in which direction and at what speed?
- 5.48 Kgm/s in the direction of the motion of 55 Kg
 - 5.48 Kgm/s in the direction of the motion of 60 Kg
 - 0.26 Kgm/s in the direction of motion of 60 Kg
 - 0.26 Kgm/s in the direction of motion of 55 Kg
12. In order to calculate the total distance travelled by an object, following three parameters shall be known?
- Final velocity, Initial Velocity, time
 - Final velocity, Initial velocity, acceleration
 - Initial velocity, acceleration and time
 - All
13. An object is thrown vertically upward and travels a distance of 10 m. What was its initial velocity?
- 1.4 m/s
 - 10 m/s
 - 9.1 m/s
 - 14 m/s
14. The volume of 50 g substance is 20 cm³. Is possible to float this body in water having density of 1 gm.*cm⁻³?
- No
 - Yes
 - May be
 - Inadequate data
15. A 60 W lamp is replaced by 12 W LED lamp. What will be the percentage saving in electricity per year?
- 0.2
 - 0.4
 - 0.6
 - 0.8
16. What is audible range of frequency for human being?
- 10-10000 Hz
 - 50-30000 Hz
 - 20-20000 Hz
 - 100-100000 Hz
17. Ascaris worm lives in which part of the human body?
- Small Intestines
 - Large intestine
 - Liver
 - kidney

18. Solar radiation heats up
- a. water bodies faster than land
 - b. both equal
 - c. water bodies slower than land
 - d. neither water bodies nor land
19. Which of the following is a common feature of monera and Protista
- a. prokaryotic cell
 - b. unicellular body design
 - c. eukaryotic cell
 - d. autotrophic mode of nutrition
20. How is the nitrogen of the environment utilized for life on earth?
- a. Lightening, high temperature and pressure
 - b. Lightening and high humidity
 - c. lightening, humidity and sunlight
 - d. high temperature and pressure