

**Multiple Choice Questions**

Q1. Force can change

- a) Velocity of a body      b) Direction of a velocity
- c) Magnitude of a velocity      d) All the above

Q2. SI unit of force is

- a) Newton
- b) Dyne
- c) Joule
- d) N-m

Q3. Rate of change of Momentum is known as

- a) Work      b) Force
- c) Impulse      d) Energy

Q4. Momentum of a body increases from 20 kgm/s to 40 kgm/s in 5 seconds, then the force applied is

- A) 4 N      b) -4 N
- c) 12 N      d) -12 N

Q5. If no external force acts on a body, then the quantity which remains conserved is

- A) Momentum      b) Work
- c) Energy      d) Mass

Q6. When a bullet is fired from a gun, it recoils. This is due to

- a) Conservation of Energy
- b) Mass
- c) Momentum
- D) None

Q7. When a body slides over the other body, then friction between them is known as

- a) Limiting friction
- b) Rolling friction
- c) Sliding friction
- d) Static friction

Q8. The friction in the case of bodies that move rollers is known as

- a) Rolling friction   b) Sliding friction
- b) Static friction   d) Limiting friction

Q9. Which of the following measures are taken to reduce friction

- a) Polishing
- b) Streamlining
- c) Using ball bearing
- d) All the above

Q10. Which is not a unit of pressure

- a) Pascal   b) Atmosphere
- b) Bar   d) Newton

Q11. A mug filled with water appears to be lighter when lifted inside water, due to

- a) Conservation of Momentum   b) Archimedes principle   c) Newton's law   d) None

Q12. A block of relative density 5 is put in a liquid of density  $2000 \text{ kg/ms}^3$ , it will

- a) Sink   b) Float   c) Cannot say   d) Insufficient data

Q13. Velocity of a particle increases from  $10 \text{ m/s}$  to  $15 \text{ m/s}$  after travelling a distance of  $5 \text{ m}$  its acceleration is

- a)  $12.5 \text{ m/s}^2$    b)  $125 \text{ m/s}^2$    c)  $1.25 \text{ m/s}^2$    d)  $0.1 \text{ m/s}^2$

Q14. A particle is moving in a circular path of radius  $r$  the displacement after half a circle would be

- a) Zero   b)  $2r$    c)  $2\pi r$    d)  $\pi$

Q15. In uniform circular motion velocity of particle is

- a) Constant   b) Variable in magnitude   c) Variable in direction   d) Both

Q16. Area under velocity – time gives

- a) Displacement                      b) Acceleration                      c) Time                      d) Velocity

Q17. Suppose you push a wall then reaction force to this force is

- a) The force applied by the wall    b) Weight of the wall    c) Weight of your body    d) None

Q18. A particle travels 100 meters after starting from rest in 10 seconds. Its acceleration is

- a)  $2\text{m/s}^2$     b)  $4\text{m/s}^2$                       c)  $1\text{m/s}^2$  d)  $20\text{m/s}^2$

Q18. A particle travels with the speed of 18km/h its speed is m/s

- a) 5m/s    b) 50m/s                      c) 64.8m/s                      d) 6.48m/s

Q19. Displacement-time graph of a uniformly accelerated motion is

- a) Parabola                      b) Straight line                      c) An inclined line                      d) None

Q20. A body is thrown vertically upward with velocity  $U_1$  the greatest height to which it will rise is

- a)  $U/g$     b)  $U^2/2g$                       c)  $U^2/g$                       d)  $U/2g$

## Sub: Chemistry

## Class: 9th

## Worksheet no: 2

### Multiple Choice Questions

Q1.Colour of copper sulphate crystal is:

- c) Light blue                      b) Light green  
c) Light brown                      d) light yellow

Q2.When liquid air is heated then out of argon, nitrogen and oxygen:

- e) Nitrogen evaporates first then argon.  
f) Oxygen evaporates first then argon.  
g) Argon evaporates first then oxygen.  
h) Nitrogen evaporates first then oxygen.

Q3.Carbon disulphide at room temperature is a:

- a)Coloured gas                      b)Colourless gas  
c)Colourless liquid    d) Coloured liquid

Q4. When we start heating a mixture of sulphur powder and iron fillings, the first thing we would observe is that:

A) Iron fillings start melting b) Sulphur starts melting

c) Mixture becomes red hot d) Mixture evaporate

Q5. Flame should not be brought near carbon disulphide while working with it because carbon disulphide:

A) Is supporter of combustion b) Dissolve sulphur

c) is highly inflammable d) is highly non-inflammable.

Q6. The correct observation when you mix barium chloride solution with sodium sulphate solution is that:

a) A white precipitate is formed after some time.

b) A yellow precipitate is formed after some time.

c) A white precipitate is formed instantaneously.

D) A yellow precipitate is formed instantaneously.

Q7. The property of flow is unique to fluids which one of the following is correct?

e) Only gases behave like fluids.

f) Gases solids behave like fluids

g) Gas and liquids behave like fluids.

h) Only liquids are fluids.

Q8. Large amount of a gas can be put into a small metallic cylinder due to the property of gas known as:

b) Evaporation b) compressibility

d) Sublimation d) Solidification

Q9. Gases can best be liquefied by:

e) Increasing pressure

f) Decreasing temperature

g) Increasing pressure and decreasing temperature

h) Decreasing pressure

Q10. The quantity of heat (in joules) required to convert one kilogram of a liquid at its boiling point at an atmospheric pressure is called:

c) Specific heat b) Heat capacity

d) Latent heat of melting d) Latent heat of vaporization

Q11. Which of the following is not a compound

b) Sugar b) Sand c) Glucose d) Silica

Q12. Which of the following is an example of colloidal solution?

- b) Blood   b) Dust   c) Sea water   d) Tincture of Iodine

Q13. The light is ..... On passing light through a colloidal solution.

- b) Absorbed   b) Reflected   c) Ink   d) soil

Q14. Which of the following is a homogeneous mixture?

- b) Soda water   b) Milk   c) Ink   d) Soil

Q15. Sulphur is soluble in:

- b) Water   b) Ethanol   c) carbon disulphide   d) Benzene

Q16. Which of the following is sublimate?

- b) Iodine   b) Oxalic acid   c) Wax   d) Sand

Q17. Which of the following is not heterogeneous mixture?

- b) Soil   b) Blood   c) Dirt   d) Saline water

Q18. Which gas is present in aerated soft drinks?

- b) Nitrogen   b) Carbon dioxide   c) Carbon monoxide   d) Hydrogen

Q18. Which of the following is not Metalloid?

- b) Boron   b) Silicon   c) Copper   d) Germanium

Q19. Which of the following is an Emulsion?

- b) Butter   b) Milk   c) Curd   d) Smoke

Q20. In a foam, which of the following is a dispersed phase?

- b) Solid   b) Liquid   c) Gas   d) none of these

Q21. Which of the following is not a gel?

- a) Butter   b) Cheese   c) Curd   d) Ink

Q22. Which of the following is a binary Mixture?

- a) Air   b) Soft Drinks   c) Steel   d) Saline Solution

Q23. Alloy is a mixture of:

- a) Solid and Liquid   b) Liquid and Solid   c) Solid and Solid   d) Liquid and gas

Q24. Which of the following is most malleable Metal?

- a) Gold                      b) Silver                      c) Aluminum                      d) Copper

Q25. Amalgam is a mixture of a metal and:

- a) Water                      b) Alcohol                      c) Mercury                      d) Benzene

## **Worksheet for class 9<sup>th</sup> Biology**

Q1. To prepare a temporary mount of onion peel, which of the following stain is used?

- (a) Safranin                      (b) Methylene blue  
(c) Iodine                      (d) None of the above

Q2. Cells are focused in microscope first in:

- (a) 100X                      (b) 40X  
(C) 10X                      (D) None of the above

Q3. While observing a mount of onion peel under a microscope, cytoplasm is seen:

- (a) Inside the nucleus                      (b) Inside the cell wall but outside nucleus  
(c) outside the cell wall                      (d) not seen at all

Q4. The plant cell excluding cell wall is known as:

- (a) Protoplasm                      (b) Protoplast  
(c) Cytoplasm                      (d) None of the above

Q5. The membrane surrounding the vacuole of a plant cell is called:

- (a) Plasma membrane                      (b) cell wall  
(c) Tonoplast                      (d) nuclear membrane

Q6. When a cell is mounted in glycerin:

- (a) Endosmosis takes place (b) exosmosis takes place  
(c) Neither exosmosis nor endosmosis takes place  
(d) None of the above

Q7. Given below are four operations for preparing a temporary mount of human cheek cells:

- (i) Taking scraping from inner side of the cheek and spreading it on a clean slide.
- (ii) Putting a drop of glycerin on the material.
- (iii) Adding two or three drops of methylene blue
- (iv) Rinsing the mount with fresh water and disinfectant solution.

The correct common to both plant and animal cells are :

- (a) i – ii – iii – iv
- (b) iv – i – iii – ii
- (c) iv – i – ii – iii
- (d) i – iii – ii – iv

Q8. Which one of the following cell constituents cannot be seen while observing a human cheek cell?

- (a) Nucleus
- (b) cell wall
- (c) Cytoplasm
- (d) none of the above

Q9. Which of the following statement is false?

- (a) Definite shape of cell is seen in animals.
- (b) Plant cell have cell wall.
- (c) Definite shape of cell wall.
- (d) Animal cell do not have cell wall.

Q10. Cheek cells:

- (a) Have large intercellular space
- (b) no inters cellular space
- (c) Lignified space
- (d) space filled with pectin.

Q11. Amoeba acquires its food through a process, termed as

- (a) Exocytosis
- (b) endocytosis
- (c) Plasmolysis
- (d) exocytosis and endocytosis

Q12. A cell wall swells up if:

- (a) The concentration of water molecule in the cell is higher than the constration of water molecules in surrounding medium.
- (b) The concentration of water molecules in surrounding medium is higher than water molecule concentration in the cell.
- (c) The concentration of water molecule is same in the cell and in the surrounding medium.
- (d) Concentration of water molecule does not matter.

Q13. Which of the following are covered by a single membrane?

- (a) Mitochondria
- (b) vacuole

(c) Lysosome

(d) plastids

Q14. Starch solution gives blue colour with iodine solution. What will happen if the blue colour starch solution is boiled?

(a) Blue colour disappears

(b) a brick red colour appears

(c) No change

(d) blue colour becomes dark.

Q15. Which food sample you will select to test the presence of starch:

(a) Grape

(b) coconut

(c) Gram seed

(d) potato

Q16. Iodine gives blue black colour with:

(a) Protein

(b) oil

(c) Starch

(d) sucrose

Q17. Metanil yellow, an adulterant used in arhar dal is basically

(a) An acid

(b) a detergent

(c) A dye

(d) none of the above

Q18. Cover slip should be gently placed on the slide to avoid:

(a) Crushing of the material

(b) entry of air bubbles

(c) Avoid oozing of stain

(d) breaking, as it is made of glass.

Q19. Adulterant arhar dal is plain yellow in colour due to

(a) Turmeric

(b) sulphur powder

(c) Metanil yellow

(d) chrome yellow.

Q20. Some characteristics of onion peel cells are:

(a) Cell wall is present

(b) only one nucleus present

(c) Intercellular spaces are not there

(d) all of the above.