

Sub – Science

- 1) The cell term is first coined by
- 2) Which is not present in a plant cell?
a) Cell wall b) Chromosome c) Centrosome d) Cell membrane
- 3) Ribosome is responsible for the production of
a) protein b) lipids c) ATP d) Carbohydrate
- 4) One of cell organelle found exclusively inside the nucleus -
a) Chloroplast b) Chromosome c) Lysosome d) Golgibody
- 5) The term semi permeability is uses for
- 6) Who stated that cells arise from pre- existing cells?
- 7) 'A' – Viruses are neither prokaryotic nor eukaryotic.
'R' – Virus contains an organized nucleus and nucleolus.
- 8) The cell organelle in which the ribosome is found-
a) SER b) RER d) Golgi body d) Lysosome
- 9) The slope of velocity-time graph gives
(a) distance (b) displacement
(c) speed (d) acceleration
- 10) Rina is running on a circular track with a constant speed of 8 m/s. Her motion is an example of
(a) uniform motion (b) uniformly accelerated motion
(c) non-uniform accelerated motion (d) either (a) or (b)
- 11) Starting from her house Sunita walked 40 m towards west and then turned to her right and walked 30 m. The distance covered by her will be
(a) 30 m (b) 70 m (c) 50 m (d) 40 m
- 12) Ram is running on a rectangular track with a constant speed of 2 m/s he started from one of the corner, then how many times will his velocity change in completing one round?
(a) 1 time (b) 2 times (c) 3 times (d) 4 times
- 13) Which of the following phenomena would increase on raising the temperature?
(a) Diffusion, evaporation, compression of gases
(b) Evaporation, compression of gases, solubility
(c) Evaporation, diffusion, expansion of gases
(d) Evaporation, solubility, diffusion, compression of gases
- 14) Seema visited a Natural Gas Compressing unit and found that the gas can be liquefied under specific conditions of temperature and pressure. While sharing her experience with friends she got confused. Help her to identify the correct set of conditions.
(a) Low temperature, low pressure
(b) High temperature, low pressure

(c) Low temperature, high pressure

(d) High temperature, high pressure

15) The property of flow is unique to fluids. Which one of the following statements is correct?

(a) Only gases behave like fluids

(b) Gases and solids behave like fluids

(c) Gases and liquids behave like fluids

(d) Only liquids are fluids

16) During summer, water kept in an earthen pot becomes cool because of the phenomenon of

(a) diffusion

(b) transpiration

(c) osmosis

(d) evaporation

17) A few substances are arranged in the increasing order of 'forces of attraction' between their particles. Which one of the following represents a correct arrangement?

(a) Water, air, wind

(b) Air, sugar, oil

(c) Oxygen, water, sugar

(d) Salt, juice, air

18) On converting 25°C, 38°C and 66°C to Kevlin scale, the correct sequence of temperature will be

(a) 298 K, 311 K and 339 K

(b) 298 K, 300 K and 338 K

(c) 273 K, 278 K and 543 K

(d) 298 K, 310 K and 338 K

19) The boiling point of water at sea level is

(a) 0°C

(b) 273 K

(c) 373 K

(d) 273°C

20) Which of the following has the strongest interparticle forces at room temperature?

- (a) Oxygen
- (b) Water
- (c) Bromine
- (d) Iron

The process in which solid is directly converted to vapours state is called ————

- (a) vapourisation
- (b) solidification
- (c) condensation
- (d) sublimation

22. The solid which undergoes sublimation is ————

- (a) ice cube
- (b) naphthalene
- (c) sodium chloride
- (d) potassium chloride

23. Which of the following phenomena would increase on rising temperature?

- (a) Diffusion, evaporation, compression of gases
- (b) Evaporation, compression of gases, solubility
- (c) Evaporation, diffusion, expansion of gases
- (d) Evaporation, solubility, diffusion, compression of gases

24. Bose-Einstein Condensate have

- (a) Very low kinetic energy
- (b) Low kinetic energy
- (c) High kinetic energy
- (d) Highest kinetic energy

25. When heat is constantly supplied by a burner to boiling water, then the temperature of water during vaporization:

- (a) Rises very slowly
- (b) Rises rapidly until steam is produced
- (c) First rises and then becomes constant
- (d) Does not rise at all

26. Which of the following represent the suitable conditions for the liquefaction of gases?

- (a) Low temperature, low pressure
- (b) High temperature, low pressure
- (c) Low temperature, high pressure
- (d) High temperature, high pressure

27. When a gas jar full of air is placed upside down on a gas jar full of bromine vapors, the red-brown vapors of bromine from the lower jar go upward into the jar containing air. In this experiment:

- (a) Air is heavier than bromine
- (b) Both air and bromine have the same density
- (c) Bromine is heavier than air
- (d) Bromine cannot be heavier than air because it is going upwards against gravity

28. CO_2 can be easily liquified and even solidified because

- (a) It has weak forces of attraction
- (b) It has comparatively more force of attraction than other gases
- (c) It has more intermolecular space
- (d) It is present in atmosphere

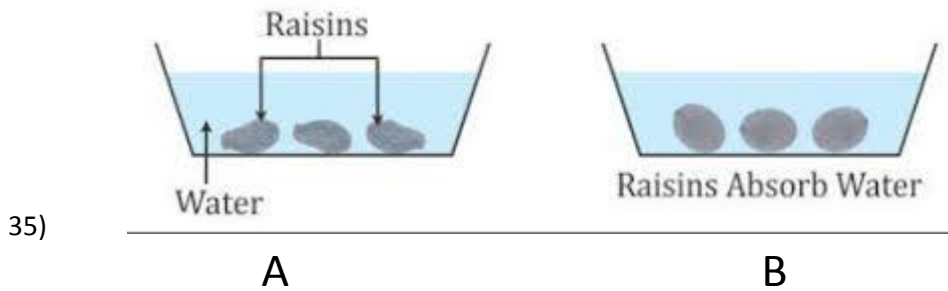
29. Kinetic energy of molecules is directly proportional to

- (a) Temperature
- (b) Pressure
- (c) Both (a) and (b)
- (d) Atmospheric pressure

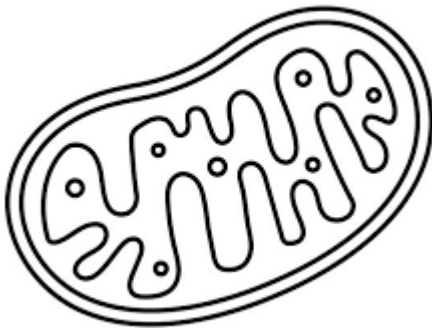
30. Which of the following is incorrect about plasma?

- (a) Fluorescent tube and neon sign bulbs consist of plasma.
- (b) The gas gets ionised when electrical energy flows through it.
- (c) It consists of super-energetic and super-excited particles.
- (d) The plasma glows with colour which does not depend upon nature of gas.

- 31) Define cell theory.
- 32) Why protoplasm is called 'the living matter of cell'?
- 33) Differentiate between the following -
- a) Cell wall and cell membrane
 - b) Prokaryotic and Eukaryotic cell
 - c) Mitosis and meiosis cell division
- 34) Define the following terms -
- a) Plasmolysis
 - b) Diffusion



In the given figure, which one is hypertonic and which one is hypotonic solution? Explain with suitable reasons.



- 36) the given figure and label at least three different parts.
- 37) Differentiate between the following -
- a) Haploid cell and Diploid cell
 - b) Endosmosis and Ex-osmosis
- 38) Draw a well labeled diagram of an animal cell.
- 39) Draw a well labeled diagram of a plant cell.
- 40) Why chloroplast is called 'kitchen of the cell'?
- 41) Define displacement.

- 42) Name the instrument in vehicles that can read distance travelled by the vehicle.
- 43) What do you mean by non-uniform motion?
- 44) What is a scalar quantity?
- 45) What is the general name of rigid form of matter .Give one example.
- 46) Which of the two diffuses faster a liquid or a gas?
- 47) What is the common name of solid Carbon dioxide?
- 48) What are the Characteristics of particle of matter?
- 49) How is heat transferred when a solid sublimates?
- 50) Why do clothes dry faster on a Windy day?