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HOLIDAY HOMEWORK
Class IX E (SCIENCE)

- Learn Chapter 1, 5 And 8
- Worksheet on Chapter 1 and Chapter 5

Chapter 5: Fundamental unit of life

1. What will happen to a plant cell or animal cell into
 - a) Hypotonic solution
 - b) Isotonic solution
 - c) Hypertonic solution
2. What is nucleoid?
3. Write one function of each of the following organelles:
 - i) Endoplasmic reticulum
 - ii) Lysosomes
 - iii) Golgi apparatus
 - iv) Mitochondria
 - ii) Leucoplast
10. Write the full form of
 - i) ATP
 - ii) DNA
11. What are chloroplasts?
12. What is the functional unit of DNA?
13. Why inner membrane of mitochondria is deeply folded?
14. Name two cell organelles that have their own DNA and Plastids.
15. Why Lysosomes are called 'Suicide bags of a cell'?
16. Why plant cells have large central vacuole?
17. Why are Mitochondria called 'Powerhouses of the cell'?
18. Where are protein synthesized inside the cell?
19. What is the difference between leucoplast and Chromoplast?
20. Differentiate between prokaryotic and eukaryotic cells on the basis of size, nuclear region, no of chromosomes and organelles.
21. list the differences between plant cell and animal cells.
22. Write any three differences between cell wall and cell membrane.
23. The digestive enzymes in the lysosomes are synthesized by _____.
24. The Energy currency of cell is _____.
25. SER helps in the manufacture of _____.
26. RER has _____ attached on its surface which are the sites of _____ synthesis.
27. Draw a well labelled diagram of
 - a) Plant cell
 - b) Animal cell
 - c) a Prokaryotic cell
28. If the organization of the cell is destroyed due to some physical or chemical influence, what will happen?
29. Where do the lipids and proteins constituting the cell membrane get synthesized?
30. Name the process through which amoeba obtain its food.

Chapter 1: Matter in our surrounding

1. What are three different states of matter?
2. What is the property of gases that helps with filling large volume of gases in small cylinder?
3. Temperature at which solid melts is called?
4. A change of state directly from solid to gaseous or vice versa without changing in liquid state
5. A change of liquid from liquid to vapours state below its boiling point is called
6. During summer, water kept in earthen pots becomes cool because of _____ phenomenon
7. Which state has minimum space between its particles?
8. Rate of diffusion will be fastest in which state of matter?
9. A change of state directly from solid to gas without changing into liquid state(or vice versa) is called_____.
10. The rate of evaporation decreases with _____ in humidity
11. Name the process which provide the best evidence for the motion of particles in matter?
12. What is the scientific name of particles which make up matter?
13. Convert the temperature of 573K to the celsius scale?
14. Define the latent heat?
15. What is the chemical name of dry ice?
16. What is example of sublimatory process?
17. Name the process by which a drop of ink spreads in a beaker of water?
18. What is the general name of rigid form of matter?
19. A substance has a definite volume but no definite shape. State whether this substance is a solid, liquid or gase.
20. A substance has a definite shapes as well as a definite volume'. Which physical state is represented by this statements?
21. a) What is evaporation?
b) State four factors that affect the rate of evaporation. Explain the role of _____ these factors with appropriate examples.
22. Differentiate between solids, liquids and gases on the basis of the following charecteristics : Inter-particle space, rigidity, compressibility, shape, kinetic energy and density.
23. Define : i) Boiling point 2) Sublimation c) Fusion d) Melting Point
e) Latent heat of Vaporisation f) Latent heat of Fusion
24. Draw a diagram showing interconversion of three states of matter.
25. State the characteristics of particles of matter.