

National Institute of Open Schooling
Lesson 4- Cell Structure and Function
Worksheet-4

1. “Cell is the structural and functional unit of life.” Justify the statement.
2. Some plants cells have lost the following functions:
 - a. Some cells have been stopped synthesis of sugar.
 - b. Some cells have been stopped synthesis of proteins.
 - c. Some cells have stopped synthesis of enzymes.Name the cell organelles which are responsible for these activities.
3. How do prokaryotes differ from eukaryotes in regards to their genetic material?
4. “Structure of nuclear membrane is most suited for its functions.” Give reasons in support to your answer.
5. A plant cell (taken out from the root tip) has been placed in concentrated sugar or salt solution for 1 hour. Do you observe any changes? If yes, explain the changes it may have occurred?
6. “Do you think a cell can survive without nucleus.” Give reasons in support of your answer.
7. Suppose you are working in a laboratory and you are required to demonstrate various stages of cell division. How will you grow the root tips?
8. Why is it necessary that gametes be produced through meiosis in humans? Explain
9. A person wants to study the role of centriole in a cell. By mistake he has removed it from the cell. Can you identify whether it is a plant cell or animal cell. What effects would you expect due to this removal? explain
10. Placed below is a diagram of cell cycle? Explain about its different phases.

