Class IX: CT 1: Chapter -Fundamental unit of Life

*Required

1. Email *

2. Name *

3. Class *

Mark only one oval.

- IX A
- IX C
- IX G

4. Roll No *

5. 1. You are observing cell under compound microscope. Many cells are there, some are prokaryotic and some are eukaryotic. How you can identify? Based on 1 point

Mark only one oval.

- Membrane of cell organelles
- Developed nucleus
- Size
- None

6. 2. In the same context to adjust the microscope which is or are important 1 point

Mark only one oval.

- Fine adjustment
- Coarse adjustment
- light
- All

7. 3. Rima has observed an animal cell and there she found a membrane less cell organelle which is very common in all animal cell * 1 point

Mark only one oval.

- Spherosome
- Glyoxysome
- Peroxysome
- Centriole

8. 4. Later she understood its a human cell. She was thinking what could be the largest constituent of a human cell membrane? Her teacher tells the name and also tells its performing majority of cell membrane function. So the constituent is: 1 point

Mark only one oval.

- Protein
- Lipid
- Phospholipid
- Peptone

9. 5. Bacteria do not have organelles; yet, the same reactions that take place on the mitochondria inner membrane, the phosphorylation of ADP to ATP, and chloroplasts, photosynthesis, take place in bacteria. Where do these reactions take place? 1 point

Mark only one oval.

- ◯ These reactions take place in the nucleoid of the bacteria.
- ◯ These reactions occur in the cytoplasm present in the bacteria.
- ◯ These reactions occur on the plasma membrane of bacteria.
- ◯ These reactions take place in the mesosomes (Fold of membranes)

10. 6. Which element of the cell theory has practical applications in health care because it promotes the use of sterilization and disinfection? 1 point

Mark only one oval.

- ◯ All cells come from pre-existing cells.
- ◯ All living organisms are composed of one or more cells.
- ◯ A cell is the basic unit of life.
- ◯ A nucleus and organelles are found in prokaryotic cells.

11. 7. The major role of the cell wall in bacteria is protecting the cell against changes in osmotic pressure, pressure caused by different solute concentrations in the environment. Bacterial cells swell, but do not burst, in low solute concentrations. What happens to bacterial cells if a compound that interferes with the synthesis of the cell wall is added to an environment with low solute concentrations? 1 point

Mark only one oval.

- ◯ Bacterial cells will shrink due to the lack of cell wall material.
- ◯ Bacterial cells will swell
- ◯ Bacterial cells may burst due to the influx of water.
- ◯ Bacterial cells remain normal; they have alternative pathways to synthesize cell walls.

12. 8. Which of these is a possible explanation for the presence of a rigid cell wall in plants? 1 point

Mark only one oval.

- ◯ Plants remain exposed to changes in temperature and thus require rigid cell walls to protect themselves.
- ◯ Plant cells have a rigid cell wall to protect themselves from grazing animals.
- ◯ Plant cells have a rigid cell wall to prevent the influx of waste material
- ◯ None

13. 9. _____ is a jellylike substance found floating inside the plasma membrane. 1 point

Mark only one oval.

- ◯ cell sap
- ◯ cytoplasm
- ◯ karyoplasm
- ◯ mitochondria

14. 10. Name the process in which the ingestion of material by the cells is done through the plasma membrane? 1 point

Mark only one oval.

- ◯ egestion
- ◯ osmosis
- ◯ pinocytosis
- ◯ endocytosis

15. 11. What are the advantages and disadvantages of light microscopes? What are the advantages and disadvantages of electron microscopes? 1 point

Mark only one oval.

- ◯ Advantage: In light microscopes, the light beam does not kill the cell. Electron microscopes are helpful in viewing intricate details of a specimen and have high resolution. Disadvantage: Light microscopes have low resolving power. Electron microscopes are costly and require killing the specimen.
- ◯ Advantage: Light microscopes have high resolution. Electron microscopes are helpful in viewing surface details of a specimen. Disadvantage: Light microscopes kill the cell. Electron microscopes are costly and low resolution.
- ◯ Advantage: Light microscopes have high resolution. Electron microscopes are helpful in viewing surface details of a specimen. Disadvantage: Light microscopes can be used only in the presence of light and are costly. Electron microscopes uses short wavelength of electrons and hence have lower magnification.
- ◯ Advantage: Light microscopes have high magnification. Electron microscopes are helpful in viewing surface details of a specimen. Disadvantage: Light microscopes can be used only in the presence of light and have lower resolution. Electron microscopes can be used only for viewing ultra-thin specimens.

16. 12. We have discussed the upper limits of cell size; yet, there is a lower limit to cell size. What determines how small a cell can be? 1 point

Mark only one oval.

- ◯ The cell should be large enough to escape detection.
- ◯ The cell should be able to accommodate all the structures and metabolic activities necessary to survival.
- ◯ The size of the cell should be large enough to reproduce itself.
- ◯ The cell should be large enough to adapt to the changing environmental conditions.

17.

Mark only one oval.

- ◯ Option 1

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