

Class : XI<sup>th</sup>  
Date :

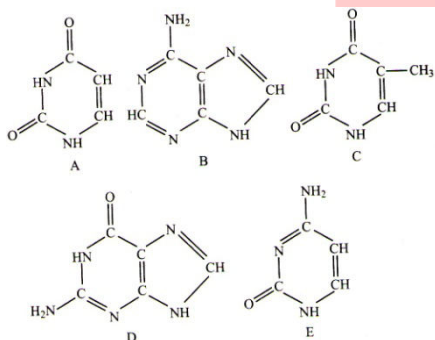
Subject : BIOLOGY  
DPP No. : 4

## Topic :- Cell the Unit of Life

1. Which of the following statements are correct about prokaryotic genetic material (DNA)?
- I. DNA is naked, that is without histones
  - II. DNA is usually circular/single chromosome
  - III. Outside the genomic DNA, small circular DNA is also present in many bacteria
  - IV. The smallest DNA are called plasmids
- a) I and II                      b) I and III                      c) Only I                      d) I, II, III and IV

2. Golgi body originates from
- a) Lysosome                      b) Endoplasmic reticulum  
c) Mitochondria                      d) Cell membrane

3. The following diagrams represent the nitrogenous bases of nucleic acid molecules. Identify the correct combination.



- a) A- Uracil, B- Adenine, C- Thymine, D- Guanine, E- Cytosine  
b) A- Uracil, B- Guanine, C- Cytosine, D- Adenine, E- Thymine  
c) A- Thymine, B- Adenine, C- Cytosine, D- Guanine, E- Uracil  
d) A- Uracil, B- Guanine, C- Uracil, D- Adenine, E- Cytosine
4. Extension of plasma membrane in prokaryotic cell is
- a) Mesosome                      b) Haploid                      c) Ribosome                      d) None of these
5. A biomembrane consists of lipids, proteins carbohydrates and water. These lipid molecules are
- a) Amphipathic  
b) Amphipathic  
c) Both polar hydrophilic and non-polar hydrophobic ends  
d) All of the above

6. Thread like protoplasmic projections on the free surface of absorptive cells (such as intestinal cells) are called  
 a) Plasmodesmata      b) Microfilaments      c) Cilia      d) None of these
7. .... are an exception to cell theory  
 a) Bacteria      b) Fungi      c) Viruses      d) Lichens
8. Structural lipids of cell membrane are  
 a) Simple lipid      b) Chromolipids      c) Steroid      d) Phospholipids
9. Quantasomes are present in  
 a) Chloroplast      b) Mitochondria      c) Golgi body      d) Lysosome
10. The chemical substances found most abundantly on the middle lamella are released into the phragmoplast by  
 a) Endoplasmic reticulum      b) Golgi complex  
 c) Spindle fragments      d) Interzonal fibres
11. According to widely accepted 'fluid mosaic model' cell membranes are semi-fluid, where lipids and integral proteins can diffuse randomly. In recent years, this model has been modified in several respects. In this regard, which of the following statement is incorrect?  
 a) Proteins in cell membranes can travel within the lipid bilayer  
 b) Proteins can remain confined within certain domains of the membrane  
 c) Proteins can also undergo flip-flip movements in the lipid bilayer  
 d) Many proteins remain completely embedded within the lipid bilayer
12. Okazaki fragments are joined in a correct sequence by  
 a) DNA polymerase      b) DNA ligase      c) RNA polymerase      d) Primase
13. Which of the following cell organelles stores hydrolytic enzymes?  
 a) Centriole      b) Lysosome      c) Chromoplast      d) Chloroplast
14. Cell is the fundamental structural and functional unit of all living organisms. This was evidenced by the fact that  
 a) All cells arises by the fusion of two cells      b) All cells are totipotent  
 c) Subcellular components can regenerate a complete cell      d) Anything less than a complete structure of a cell does not ensure independent living
15. What is mitoplast?  
 a) Membraneless mitochondria      b) Another name of mitochondria  
 c) Mitochondria without outer membrane      d) Mitochondria without inner membrane
16. Assembly of two subunits, 40S and 60S of the ribosome is  
 a) 100S      b) 80S      c) 70S      d) 50S

17. Cell membrane of eukaryotes is composed of  
a) Carbohydrates and proteins                      b) Proteins and lipids  
c) Carbohydrates and lipids                         d) Carbohydrates, lipids and proteins
18. Sigma factor is related to  
a) RNA polymerase    b) DNA polymerase    c) Both (a) and (b)    d) None of these
19. The figures of cork cells as seen by Robert Hooke were published in the book  
a) *Origin of Species*    b) *Genera Plantarum*    c) *Micrographia*    d) *Species Pantarum*
20. Robert Hooke thought about the cells that  
a) Something similar to veins and arteries of animals for conducting fluid.  
b) Smallest structural unit  
c) Smallest functional unit  
d) Unit of heredity

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