

# CONCEPT APPLICATION LEVEL - III

## SECTION - A

- **Fill in the blanks**
- Q.1 Ribosomes are located on the surface of \_\_\_\_\_.
- Q.2 \_\_\_\_\_ store hydrolytic enzymes.
- Q.3 \_\_\_\_\_ regarded as director of cell.
- Q.4 \_\_\_\_\_ and \_\_\_\_\_ are called semi-autonomous cell organelles.
- Q.5 \_\_\_\_\_ are the main sites for synthesis of ATP in mitochondria.
- Q.6 Protoplasm consist of two parts \_\_\_\_\_ and \_\_\_\_\_.
- Q.7 \_\_\_\_\_ is the basic unit of life.
- Q.8 \_\_\_\_\_ separates the content of a cell from its surrounding medium.
- Q.9 Cell wall is absent in \_\_\_\_\_ cells
- Q.10 Cell wall is made up of \_\_\_\_\_ in plant cell.
- Q.11 \_\_\_\_\_ allows exchange of substances between nucleus and cytoplasm.
- Q.12 \_\_\_\_\_ are units of hereditary material.
- Q.13 RER helps in the synthesis of \_\_\_\_\_.
- Q.14 When lysosomes bring self destruction of a cell, they are called \_\_\_\_\_.
- Q.15 Vacuoles are fluid filled sacs covered by a membrane called \_\_\_\_\_.

## SECTION-B

- **MULTIPLE CHOICE QUESTIONS (ONE CORRECT ANSWER):**
- Q.1 Which of the following statements is not correct?  
 (A) In plant cells, vacuoles are absent.  
 (B) Vacuole is bounded by a single membrane.  
 (C) In *Amoeba*, contractile vacuole is important for excretion.  
 (D) Flagellum is important for transport of bacteria.
- Q.2 Which of the following cell organelles are non-membranous and found in both prokaryotic and eukaryotic cells?  
 (A) Lysosome                      (B) Vacuoles                      (C) Ribosome                      (D) Mitochondria
- Q.3 The scientist who described cell as “many little boxes” was  
 (A) Robert Hooke                      (B) Theodor Schwann  
 (C) Anton Van Leeuwenhoek                      (D) Rudolf Virchow
- Q.4 The characteristic of a nerve cell that relates directly to its function is its  
 (A) Long extensions                      (B) Flat shape  
 (C) Ability to change shape                      (D) Ability to engulf bacteria
- Q.5 Old cell organelles, viruses, bacteria etc. that a cell can ingest are broken down in  
 (A) Ribosomes                      (B) RER                      (C) SER                      (D) Lysosomes
- Q.6 A cell that contains a cell wall, chloroplasts and a central vacuole is  
 (A) Plant cell                      (B) Animal cell                      (C) Yeast cell                      (D) Bacterial cell

- Q.7 Cells that have a high energy requirement generally have many  
(A) Ribosomes (B) Nucleus (C) Mitochondria (D) Chloroplast
- Q.8 Which of the following organelles is found in plant cells but not in animal cells?  
(A) Nucleus (B) Mitochondrion (C) Chloroplast (D) Golgi apparatus
- Q.9 Smallest cell organelle is  
(A) Mitochondria (B) Ribosome (C) Vacuole (D) Lysosome
- Q.10 Plasma membrane is  
(A) Permeable (B) Selectively permeable  
(C) Impermeable (D) Semi-permeable
- Q.11 All organism consist of smaller part called  
(A) organs (B) cell (C) cell wall (D) organelle
- Q.12 Which part of the cell contains organelles?  
(A) Protoplasm (B) Nucleoplasm (C) Chromosomes (D) Cytoplasm
- Q.13 Which of the following is **not** a plastid?  
(A) Chloroplast (B) Chromoplast (C) Leucoplast (D) Ribosome
- Q.14 The colour of chlorophyll pigment is  
(A) yellow (B) green (C) red (D) blue
- Q.15 Cell wall of plants is made up of  
(A) starch (B) lignin (C) cellulose (D) protein
- Q.16 Which of the following is **not** a unicellular organism?  
(A) Yeast (B) Paramecium (C) Hydra (D) Amoeba
- Q.17 Mitosis is a  
(A) cell division (B) cell death (C) cell elongation (D) cell wall
- Q.18 DNA stands for  
(A) deoxy ribosome nucleic acid (B) deoxy ribonucleic acid  
(C) dioxide nucleic acid (D) dihydrogen ribose nucleic acid
- Q.19 Which of the following is the site for energy production?  
(A) Mitochondria (B) Nucleoplasm (C) Cytoplasm (D) Nuclear membrane
- Q.20 The largest cell is that of  
(A) plant (B) ostrich egg (C) hen egg (D) human cheek

- Q.21 Which is the outermost layer of an animal cell?  
 (A) Cell wall (B) Cytoplasm (C) Plasma membrane (D) Protoplasm
- Q.22 What is known as the power house of the cell?  
 (A) Ribosome (B) Mitochondria (C) Vacuoles (D) Nucleolus
- Q.23 What is responsible for passing genetic characteristics from parents to offsprings?  
 (A) Chromosomes (B) Genes (C) Nucleoplasm (D) Nucleolus

### SECTION-C

• **ASSERTION & REASON :**

**Direction:** Each of these questions contains an Assertion followed by reason. Read them carefully and answer the question on the basis of following options. You have to select the one that best describes the two statements.

- (A) If both **Assertion** and **Reason** are correct and Reason is the **correct explanation** of Assertion.  
 (B) If both **Assertion** and **Reason** are correct and Reason is **not the correct explanation** of Assertion.  
 (C) If **Assertion** is **correct** but Reason is **incorrect**.  
 (D) If **Assertion** is **incorrect** but Reason is **correct**.

- Q.1 **Assertion :** Mitochondria does not help in photosynthesis.  
**Reason :** Mitochondria have enzymes for photosynthesis.
- Q.2 **Assertion :** Lysosomes have basic enzymes.  
**Reason :** Lysosomes are called autophagosomes.
- Q.3 **Assertion :** A cell membrane shows fluid-mosaic behavior.  
**Reason :** A membrane is composed of lipids and proteins.
- Q.4 **Assertion :** The true nucleus is generally absent in prokaryotes.  
**Reason :** An undifferentiated, unorganised fibrillar nucleus is observed in prokaryotic cells.
- Q.5 **Assertion :** Mitochondria is called power house of cell.  
**Reason :** Mitochondria produce ADP.

### SECTION-D

• **MATCH THE FOLLOWING (ONE TO ONE)**

**Column-I** and **column-II** contains **four** entries each. Entries of column-I are to be matched with some entries of column-II. Only One entries of column-I may have the matching with the same entries of column-II

- | Q.1 | <b>Column I</b>   |     | <b>Column II</b> |
|-----|-------------------|-----|------------------|
|     | (A) Mitochondria  | (P) | Secretion        |
|     | (B) Golgi complex | (Q) | Suicidal bags    |
|     | (C) Lysosomes     | (R) | ATP              |
|     | (D) Centrosome    | (S) | Cell division    |