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SEAT No. \_\_\_\_\_

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SC

**SARDAR PATEL UNIVERSITY**  
**SECOND YEAR B.Sc.(THIRD SEMESTER) EXAMINATION**  
**2018**  
**SATURDAY, 24<sup>th</sup> NOVEMBER**  
**2:00 TO 5:00 pm**  
**USO3CBIO 01 (CYTOLOGY)**

**Marks: 70**

**Note: 1. Answers of all the questions (including multiple choice questions) should be written in the provided answer book only**

**2. Draw neat and labelled diagrams wherever necessary**

**Q.1. Select the correct answer and write it in the answer sheet. [10]**

1. \_\_\_\_\_ is outermost layer of plant cell.  
(a) cell wall (b) cell membrane (c) cytoplasm (d) none
2. \_\_\_\_\_ is semi permeable in nature.  
(a) cell wall (b) cell membrane (c) cell lamellae (d) None of these
3. \_\_\_\_\_ is network from cell membrane to nuclear membrane.  
(a) Mitochondria (b) Endoplasmic reticulum (c) ribosomes (d) chloroplast
4. The function of chloroplast is \_\_\_\_\_.  
(a) secretion (b) respiration (c) photosynthesis (d) none
5. \_\_\_\_\_ is powerhouse of cell.  
(a) chloroplast (b) mitochondria (c) golgi body (d) endoplasmic reticulum
6. A cell having more activity has \_\_\_\_\_ number of mitochondria.  
(a) more (b) less (c) same (d) None of these
7. Golgi body helps in \_\_\_\_\_.  
(a) protein packaging (b) photosynthesis (c) respiration (d) none
8. Light reaction occurs in \_\_\_\_\_.  
(a) stroma (b) grana (c) both (d) None of these
9. Dark reaction occurs in \_\_\_\_\_.  
(a) stroma (b) grana (c) both (d) None of these
10. \_\_\_\_\_ is outer covering of nucleus.  
(a) Nuclear membrane (b) cell membrane (c) cell wall (d) none

**Q.2. Answer the following. (Any ten)**

**[20]**

1. Write chemical composition of cell wall.
2. What is pinocytosis?
3. What is active transport?
4. What are microbodies?
5. Write the types of Endoplasmic reticulum.

(1)

(P.T.O)

6. Draw labelled diagram of Golgi body.
7. Explain structure of chloroplast.
8. Why is lysosome called suicidal bag?
9. Explain function of cilia and flagella.
10. What are ergastic substances?
11. What are microtubules?
12. Write the function of nuclear pore.

**Q.3.**

- (a) Explain the ultra structure of plant cell wall. [05]
- (b) Enlist functions of plant cell wall. [05]

OR

**Q.3.**

- (a) Discuss the structure of cell membrane. [05]
- (b) Explain all functions of cell membrane. [05]

**Q.4.** Describe the structure and function of mitochondria in detail. [10]

OR

**Q.4.** Explain the structure and function of Golgi body. [10]

**Q.5.**

- (a) Write about chemical composition of Chloroplast. [05]
- (b) Write about the types of lysosomes. [05]

OR

**Q.5.**

- (a) Write a short note on peroxisomes. [05]
- (b) Write a note on glyoxisomes. [05]

**Q.6.**

- (a) Enumerate and explain about nuclear membrane. [06]
- (b) Explain about nucleoplasm. [04]

OR

**Q.6.**

- (a) Write a note on nucleolus. [06]
- (b) Discuss function of chromatin material. [04]

