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(20524) Roll No.
B.Sc. (Biotech.)-I Year.

NS-3457

**B.Sc. (Biotechnology)
Examination, May-2024**

Cell Biology

(B-103)

B.Sc. (Bio.Tech.)

Time : 3:00 Hours] [Maximum Marks : 50

Note : Attempt any **five** questions. **All** questions carries equal marks.

1. "A cell is a basic unit of life" Prove it with suitable examples. 10
2. Write a well-labeled diagram of the Eukaryotic cell. 10
3. Write a detailed note on the following:
 - (i) Pleuro Pneumonia Like Organisms 5
 - (ii) Chloroplast 5

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4. Differentiate between the following terms:
 - (i) Chloroplast and mitochondria 4
 - (ii) Thylakoids and cisternae 3
 - (iii) Rough endoplasmic reticulum and smooth endoplasmic reticulum 3
5. Write a detailed note on the followings:
 - (i) Structure of Gram-positive and negative bacterial cell wall 5
 - (ii) Cytoskeleton of eukaryotic cells 5
6. Write a detailed well-leveled diagram of lysosome and peroxisome. 10
7. Write note on the following:
 - (i) Epithelial Cells 4
 - (ii) Tight junctions 3
 - (iii) Replication 3
8. What do you understand about Squamous cell carcinoma and Adenocarcinoma? 10

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9. Write a short note on the following:

(I) Cell Junction 4

(II) Ribosome 3

(III) Apoptosis 3

10. Very short answers are required. Attempt

all the following questions: $2 \times 5 = 10$

(I) Nucleolus

(II) Flagella

(III) Cell locomotion

(IV) Programmed cell death

(V) Adenylate cyclase