

- All questions are compulsory.
- All questions carry equal marks.
- Draw diagram wherever necessary

Q. I) A) Answer the following in short ( any two )

(4M)

1. Explain autotrophogenesis.
2. Define eukaryotic cell.
3. What are yeast cells?
4. What are autotrophs?

B) Answer the following in brief (any two)

(6M)

1. Explain the formation of first cell.
2. Write a note on plant cell.
3. What is Golgi apparatus?
4. Write a note on chromatin material of eukaryotic cell.

C) What is Miller's experiment? Give the experimental setup, observation, significance and inference of the experiment.

(5M)

OR

C) Write a note on the nucleus of the eukaryotic cell.

(5M)

Q. II) A) Answer the following in short ( any two )

(4M)

1. Define cell.
2. Define prokaryotic cell.
3. What is cell membrane?
4. Define passive transport.

B) Answer the following in brief ( any two )

(6M)

1. Distinguish between eukaryotic and prokaryotic cells.
2. Write short note on microtubules.
3. Write short note on cell membrane.
4. Explain transport across cell membrane.

C) Explain the two fundamentally different classes of cells

(5M)

OR

C) Explain fluid mosaic model with suitable diagram.

(5M)

Q. III) A) Answer the following in short (any two)

(4M)

1. Define lysosome.
2. Explain ER.
3. What are Mitochondria?
4. What is plastids?

B) Answer the following in brief (any two)

(6M)

1. Give structure and function of Chloroplast.
2. Explain the function of Mitochondria.
3. Explain Golgi apparatus.
4. Explain peroxisome and their function.