

C) What are mitochondria? Explain organization & function of the mitochondria. (5M)

OR

C) Explain structure and function chloroplast. (5M)

Q. IV) A) 1) Explain the following in short (any one) (2M)

- i) Perinuclear spaces                      ii) Euchromatin

(3M)

Q. IV) A) 2) State whether true or false (any three)

1. The prokaryotic cell shows absence of mitochondria.
2. The plant cell does not possess ribosomes.
3. Prokaryotic cells are characteristics of bacteria.
4. Nucleic acid and proteins are present in ribosomes.
5. In eukaryotic cell, the chromosomes are located in nucleus.
6. Mitochondria is surrounded by two membranes.

(2M)

Q. IV) B) 1) Explain the following in short (any one)

- i) Microfilaments                      ii) Active transport

(3M)

Q. IV) B) 2) State whether true or false (any three)

1. Fluid mosaic model conceived by Sanger and Nicolson.
2. The protein resides within the lipid layer by electrostatic repulsion.
3. Mosaic model does not contain glycoprotein.
4. Membrane fluidity is based on non covalent interaction.
5. Movement of solutes across the membrane from higher to lower concentration is called passive transport.
6. In endocytosis the intake of the substances from outside.

(2M)

Q. IV) C) 1) Explain the following in short (any one)

- i) ER                      ii) Peroxisome

(3M)

Q. IV) C) 2) State whether true or false (any three)

1. The mitochondrion is the organelle where eukaryotes burn their food by cellular respiration.
2. The Golgi apparatus is a stack of flattened membrane sacs that looks little bit like a stack of pancakes.
3. The mitochondrion is having only one membrane.
4. The inside of mitochondrion is the matrix.
5. Chloroplasts are found in animals.
6. Chloroplast is having two membranes.