

Question Bank for Mitochondria and Chloroplast

1. Cristae in mitochondria serves as sites for

- (a) oxidation reduction reaction
- (b) protein synthesis
- (c) macromolecules breakdown
- (d) flavoproteins are phosphorylated

Answer: (a)

2. Pick the incorrect statement

- (a) mitochondrial DNA is known as mtDNA
- (b) mitochondria is the powerhouse of the cell
- (c) mitochondria is the site for calvin cycle
- (d) mitochondria is the site for krebs cycle and oxidative phosphorylation

Answer: (c)

3. Inner membrane of mitochondria is rich in phospholipid _____

- (a) phosphatidylserine
- (b) phosphatidylinositol
- (c) phosphatidylcholine
- (d) cardiolipin

Answer: (d)

4. Mt DNA is

- (a) simple single stranded circular DNA molecule
- (b) simple double stranded circular DNA molecule
- (c) simple double stranded linear DNA molecule
- (d) simple single stranded linear DNA molecule

Answer: (b)

5. Inner mitochondrial membrane has

- (a) cytochrome oxidase complex
- (b) b-c 1 complex
- (c) NADH dehydrogenase complex
- (d) all of the above

Answer: (d)

6. This is not a function of mitochondria

- (a) fatty acid breakdown

- (b) non-shivering thermogenesis
- (c) electron transport chain and associated ATP production
- (d) glycolysis and associated ATP production

Answer: (d)

7. This statement is incorrect about mitochondrial membrane

- (a) outer membrane is permeable to all molecule types
- (b) outer membrane is resembles a sieve
- (c) outer membrane embeds enzymes of electron transfer chain
- (d) none of these

Answer: (c)

8. Oxysomes of F₀-F₁ particles take place on

- (a) Chloroplast surface
- (b) Thylakoid
- (c) Inner mitochondrial membrane
- (d) Mitochondrial surface

Answer: (c)

9. Pick the incorrect statement

- (a) generally, chloroplasts are larger than mitochondria
- (b) mitochondria and chloroplasts both have DNA
- (c) mitochondria and chloroplasts both contain an outer and inner membrane
- (d) mitochondria and chloroplasts both have an internal compartment, the thylakoid space bound by thylakoid membrane

Answer: (d)

10. Typically, the inner membrane of mitochondria is highly convoluted to form a series of infolding known as

- (a) grana
- (b) thylakoids
- (c) cristae
- (d) lamellae

Answer: (c)

1. The bright colours of ripe fruits is due to

- (a) Chromoplasts
- (b) Chloroplasts
- (c) Amyloplasts

(d) Leucoplasts

Answer: (a)

2. Factory for synthesis of sugars in autotrophic eukaryotes

(a) Mitochondria

(b) Chloroplast

(c) Ribosome

(d) Endoplasmic reticulum

Answer: (b)

3. Stroma is the ground material of which of these

(a) Ribosomes

(b) Lysosomes

(c) Mitochondria

(d) Chloroplasts

Answer: (d)

4. When green tomatoes fruits turn to red, then

(a) new chromoplasts are formed

(b) chloroplasts are disintegrated and get converted into chromoplasts

(c) chromoplasts are changed to chloroplasts

(d) none of these

Answer: (b)

5. The thylakoid in chloroplasts are arranged as

(a) Stacked discs

(b) interconnected disc

(c) interconnected sacs

(d) none of the above

Answer: (a)

6. If we separate the cell organelles of a living cell, then which part should be alive

(a) Ribosome

(b) cell wall

(c) endoplasmic reticulum

(d) chloroplast

Answer: (d)

7. Extranuclear DNA is found in

- (a) Ribosome
- (b) Chloroplast
- (c) Golgi apparatus
- (d) endoplasmic reticulum

Answer: (b)

8. In chloroplasts, where do light reactions occur

- (a) outer membrane
- (b) inner membrane
- (c) thylakoid membrane
- (d) stroma

Answer: (c)

9. In chloroplasts, the parallel layering of membranes is suited for

- (a) maximum exposure of enzymes
- (b) maximum light absorption
- (c) minimum light absorption so cells can maintain their temperature
- (d) all of these

Answer: (b)

10. Chlorophyll in chloroplasts is present in

- (a) Stroma
- (b) outer membrane
- (c) thylakoids
- (d) inner membrane

Answer: (c)