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DEPARTMENT OF BIOCHEMISTRY
5st SEMESTER HONOURS
INTERNAL ASSESSMENT-2020
PAPER-DSE-B1
SET-1

Answer any ten questions:

Question 1

During photosynthesis, which of the followings acts as a reservoir for hydrogen ions?

- A Cristae
- B Stroma
- C Thylakoid space
- D Matrix

Question 2

Oxygenic photosynthesis occurs in

- A Chlorobium
- B Chromatium
- C Oscillatoria
- D Rhodospirillum

Question 3

In which type of reactions related to plant photosynthesis peroxisomes are involved?

- A Glycolate cycle
- B Calvin cycle
- C Bacterial photosynthesis
- D Glyoxylate cycle

Question 4

Cyclic photophosphorylation results in the formation of

- A ATP
- B NADPH
- C ATP and NADPH

D ATP, NADPH and O₂

Question 5

The fluid-filled space which surrounds the grana is

A Stroma

B Cristae

C Matrix

D Thylakoid space

Question 6

Manganese is required in

A Chlorophyll synthesis

B Nucleic acid synthesis

C Plant cell wall formation

D Photolysis of water during photosynthesis

Question 7

_____ contains green chlorophyll and other pigments.

A Stroma

B Cristae

C Matrix

D Thylakoid membrane

Question 8

Oxidative phosphorylation refers to

A Anaerobic production of ATP

B The citric acid cycle production of ATP

C Production of ATP by chemiosmosis

D Alcoholic fermentation

Question 9

Each chloroplast contains a flattened membranous sac called _____.

A Stroma

B Cristae

C Matrix

D Thylakoids

Question 10

Net yield of aerobic respiration during Krebs' cycle per glucose molecule is

A 2 ATP molecules

B 8 ATP molecules

C 36 ATP molecules

D 38 ATP molecules

Question 11

Where are thylakoids and grana located?

A Lysosomes

B Mitochondria

C Chloroplasts

D Golgi apparatus

Question 12

_____ is required for photosynthetic oxygen evolution?

A Manganese

B Iron

C Copper

D Zinc

Question 13

When thylakoids absorb solar energy the reactions that begin are:

A Glycolysis

B Light-independent

C Light-dependent

D Fermentation

Question 14

Stomatal opening is affected by

A Nitrogen concentration, carbon dioxide concentration and light

B Carbon dioxide concentration, temperature and light

C Nitrogen concentration, light and temperature

D Carbon dioxide concentration, nitrogen concentration and temperature

Question 15

The chemiosmotic coupling hypothesis of oxidative phosphorylation proposes that adenosine triphosphate (ATP) is formed because

A There is a change in the permeability of the inner mitochondrial membrane toward adenosine diphosphate (ADP)

B High energy bonds are formed in mitochondrial proteins

C ADP is pumped out of the matrix into the intermembrane space

D A proton gradient forms across the inner membrane

Question 16

What type of intermolecular forces are due to the attraction between temporary dipoles and their induced temporary dipoles?

(a) metallic bond

(b) London dispersion

(c) hydrogen bond

(d) ionic bond

(e) covalent bond

Question 17

What type of interparticle forces holds liquid N_2 together?

(a) ionic bonding

(b) London forces

(c) hydrogen bonding

(d) dipole-dipole interaction

(e) covalent bonding