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Competitive Exams: Botany MCQs (Practice_Test 15 of 104)

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1. Match List I with List II and select the correct answer:

List-I	List-II
A. Lichen	1. Virus
B. Fungi	2. Symbionts
C. Cyanobacteria	3. Decomposers
D. Bacteriophage	4. Flagellate
	5. Blue-green algae

A B C D

a. 2 1 4 3

b. 1 3 5 4

c. 5 2 3 1

d. 2 3 5 1

2. Which one of the following pairs is NOT correctly matched?

- Red Sea 藻 Trichodesmium erytherum, a cyanobacterium
- Red Tides 藻 Rhodymenia, a red algae
- Red Snow 藻 Chlamydomonas nivalis, a green algae

d. Red Rust of *Cephauros virescens*, a green algae Tea

3. Match List I with List II and select the correct answer:

List-I	List-II
A. Trabeculae of Selaginella	1. Endodermal in nature
B. Trabeculae of Marsilea	2. Cortical in nature
C. Trabeculae of soetes	3. Sporogenous in nature
D. Trabeculae of Funaria	4. Amphithecia in nature

A B C D

a. 1 2 3 4

b. 3 2 4 1

c. 1 3 4 2

d. 4 3 1 2

4. The capsule grows continuously due to the presence of n intercalary meristem in

a. Marchantia

b. Polytrichum

c. Riccia

d. Anthoceros

5. Which of the following attributes pertain to *Ginkgo biloba*?

a. Fan-shaped deciduous leaves with dichotomous venation

b. Motile sperms

c. Presence of vessels in wood

d. Lack of archegonia

Select the correct answer using the codes given below:

a. 1 and 3

b. 1 and 4

c. 1,3 and 4

- d. 1 and 2
6. Which fossil group formed the basis of Anthostrobilus theory of origin of angiosperms?
- Caytoniales
 - Cycadeoidales
 - Czekanowskiales
 - Pentoxylales
7. Which one of the following statements is correct with respect to the synthesis of starch and sucrose?
- Starch is synthesized in the mitochondria and sucrose in the cytosol
 - Starch is synthesized in the cytosol and sucrose in the chloroplast
 - Starch is synthesized in the chloroplast and sucrose in the mitochondria
 - Starch is synthesized in the chloroplast and sucrose in the cytosol
8. The phenomenon of passing of a substantial amount of light through the first cell layer in leaves without its absorption is called
- Scattering effect
 - Sieve effect
 - Refraction effect
 - Transmission effect
9. Among the following components of chloroplast membranes, which one is the strongest reducing agent?
- PQH₂
 - Reduce cytochrome b₆
 - Reduced ferredoxin
 - NADPH₂

10. Match List I with List II and select the correct answer:

List-I	List-II
A. Constitutive enzymes	1. Hydrolyzing enzymes
B. Inducible enzymes	2. Enzymes synthesized in response to certain substrates
C. Holoenzymes	3. Enzymes always present in constant amount

D. Endoenzymes	4. Catalytically active enzyme cofactor complex 5. Provide nitrogen for plant growth
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A B C D

a. 3 2 4 1

b. 5 3 2 1

c. 2 3 4 5

d. 3 2 1 4

11. Consider the following statements: Photo respiratory carbon oxidation cycle involves the cooperative interaction of

- a. Chloroplast
- b. Peroxisome
- c. Mitochondria
- d. Lysosome

Which of the above statements are correct?

- a. 1,2 and 3
- b. 1,3 and 4
- c. 1,2 and 4
- d. 2,3 and 4

12. The Pasteur effect refers to

- a. An increase in hexokinase activity owing to increased oxidative phosphorylation
- b. An increase in ethanol formation from pyruvate on changing from aerobic to anaerobic metabolism
- c. An increase in glucose utilization on changing from-anaerobic to aerobic metabolism
- d. A decrease in glucose utilization on changing from anaerobic to aerobic metabolism

13. The Mitchell or charismatic hypothesis predicts the

- a. Existence of a higher pH in the endoplasmic reticulum than in the cytosol
 - b. Symmetrical distribution of ATPase of the inner membrane of the mitochondria
 - c. Synthesis of ATP as protons flow along a gradient across inner mitochondrial membrane
 - d. Absence of ATPase in the inner mitochondrial membrane
14. During symbiotic biological nitrogen fixation. The recognition of rhizobiahost interaction involves two classes of molecules there are
- a. Lectins and lipids
 - b. Lectins and Polysaccharides
 - c. Flavonoids and lipids
 - d. Lectins and Alkaloids
15. In the study of enzymes, a sigmoidal plot of substrate concentration (S) versus the reaction velocity (V) indicates
- a. Michaelis-Menten kinetics
 - b. Cooperative binding
 - c. Competitive inhibition
 - d. Non-competitive inhibition