

## Competitive Exams: Botany MCQs (Practice-Test 15 of 104)

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

List-I

- a. Lichen
- b. Fungi
- c. Cyanobacteria
- d. Bacteriophage

List-II

- a. Virus
- b. Symbionts
- c. Decomposers
- d. Flagellate
- e. 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?

- a. Red Sea—*Trichodesmium erytherum*, a cyanobacterium
- b. Red Tides—*Rhodomenia*, a red algae
- c. Red Snow—*Chlamydomonas nivalis*, a green algae
- d. Red Rust of—*Cephaleuros virescens*, a green algae Tea

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

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List-I

- a. Trabeculae of Selaginella
- b. Trabeculae of Marsilea
- c. Trabeculae of soetes
- d. Trabeculae of Funaria

List-II

- a. Endodermal in nature
- b. Cortical in nature
- c. Sporogenous in nature
- d. Amphithecia in nature

**A B C D**

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- 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 archeogonia

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?

- a. Caytoniales
- b. Cycadeoidales
- c. Czekanowskiales
- d. Pentoxylales

7. Which one of the following statements is correct with respect to the synthesis of starch and sucrose?

- a. Starch is synthesized in the mitochondria and sucrose in the cytosol
- b. Starch is synthesized in the cytosol and sucrose in the chloroplast
- c. Starch is synthesized in the chloroplast and sucrose in the mitochondria
- d. 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

- a. Scattering effect
- b. Sieve effect
- c. Refraction effect
- d. Transmission effect

9. Among the following components of chloroplast membranes, which one is the strongest reducing agent?

- a. PQH<sub>2</sub>
- b. Reduce cytochrome b<sub>6</sub>
- c. Reduced ferredoxin
- d. NADPH<sub>2</sub>

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

List-I

- a. Constitutive enzymes
- b. Inducible enzymes
- c. Holoenzymes
- d. Endoenzymes

List-II

- a. Hydrolyzing enzymes
- b. Enzymes synthesized in response to certain substrates
- c. Enzymes always present in constant amount
- d. Catalytically active enzyme cofactor complex
- e. Provide nitrogen for plant growth

**A B C D**

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- 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