

## Competitive Exams: Botany MCQs (Practice-Test 43 of 104)

1. • **Assertion (A):** The secondary phloem constitutes a less prominent part of the tree trunk than the secondary xylem.
  - **Reason (R):** The amount of phloem produced by the vascular cambium is smaller than that of secondary xylem.
    - a. Both A and R are true and R is the correct explanation of A
    - b. Both A and R are true but R is not a correct explanation of A
    - c. A is true but R is false
    - d. A is false but R is true
  
2. • **Assertion (A):** The foliose lichen fixes considerable amount of atmospheric nitrogen which is released as nitrate by talus decomposition.
  - **Reason (R):** Since lichens are efficient bioaccumulators, one would expect them to contribute to nutrient cycling in the forest ecosystem.
    - a. Both A and R are true and R is the correct explanation of A
    - b. Both A and R are true but R is not a correct explanation of A
    - c. A is true but R is false
    - d. A is false but R is true
  
3. • **Assertion (A):** If the protein-sheath of a virus is removed, it can infect many hosts.
  - **Reason (R):** By removing protein-sheath of a virus, genetic matter can be activated to enable it to infect any host.
    - a. Both A and R are true and R is the correct explanation of A
    - b. Both A and R are true but R is not a correct explanation of A
    - c. A is true but R is false
    - d. A is false but R is true

4. • **Assertion (A):** The alloter enzyme show a 'Sigmoid' curve when their activity is plotted against substrate concentration.
- **Reason (R):** The allosteric enzymes deviate from Michaelis-Menten behavior.
- a. Both A and R are true and R is the correct explanation of A
  - b. Both A and R ate true but R is not a correct explanation of A
  - c. A is true but R is false
  - d. A is false but R is true
5. • **Assertion (A):** When an apical bud is removed, several auxiliary buds start growing.
- **Reason (R):** Cytokines produced in roots move into the shoot system.
- a. Both A and R are true and R is the correct explanation of A
  - b. Both A and R ate true but R is not a correct explanation of A
  - c. A is true but R is false
  - d. A is false but R is true
6. • **Assertion (A):** Senescence is delayed by the application of cytokine in plants.
- **Reason (R):** Cytokine prevents the breakdown of chlorophyll, protein and nucleic acids.
- a. Both A and R are true and R is the correct explanation of A
  - b. Both A and R ate true but R is not a correct explanation of A
  - c. A is true but R is false
  - d. A is false but R is true
7. • **Assertion (A):** A short day plant will flower if the long inductive dark period is interrupted with red light.
- **Reason (R):** Photoperiodic flowering response of such a kind is under the control of phytochrome.
- a. Both A and R are true and R is the correct explanation of A
  - b. Both A and R ate true but R is not a correct explanation of A
  - c. A is true but R is false

d. A is false but R is true

8. • **Assertion (A):** Formation of two noncrossover and two crossover types from a pair of homologous chromosomes, is the result of a single chiasma.

• **Reason (R):** Crossing over takes place between whole chromosomes.

a. Both A and R are true and R is the correct explanation of A

b. Both A and R are true but R is not a correct explanation of A

c. A is true but R is false

d. A is false but R is true

9. • **Assertion (A):** Eradication of alternative host barberry reduces opportunities for the development of new races of the rust fungus through genetic recombination of barberry.

• **Reason (R):** Eradication of alternate host barberry does not contribute to the success of breeding resistant varieties.

a. Both A and R are true and R is the correct explanation of A

b. Both A and R are true but R is not a correct explanation of A

c. A is true but R is false

d. A is false but R is true

10. • **Assertion (A):** By using trap crops in a crop rotation programme, the population of nematode in soil is reduced considerably.

• **Reason (R):** Trap crops parasitize nematodes and kill them.

a. Both A and R are true and R is the correct explanation of A

b. Both A and R are true but R is not a correct explanation of A

c. A is true but R is false

d. A is false but R is true

11. • **Assertion (A):** The most characteristic property of Agrobacterium tumefaciens is its ability to transform normal host cell to tumor cell.

• **Reason (R):** The tumor cell is dependent on the bacterium and continues to grow only when the bacterium is present

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- a. Both A and R are true and R is the correct explanation of A
  - b. Both A and R are true but R is not a correct explanation of A
  - c. A is true but R is false
  - d. A is false but R is true
12. • **Assertion (A):** Jojoba hohoba (*Simmondsia chinensis*) is the only known flowering plant in which the food reserve is neither starch nor an oil, but a liquid wax.
- **Reason (R):** Though the wax is formed by the combination of fatty acids with an alcohol, the alcohol is not the trihydric alcohol is not the trihydric alcohol glycerol.
- a. Both A and R are true and R is the correct explanation of A
  - b. Both A and R are true but R is not a correct explanation of A
  - c. A is true but R is false
  - d. A is false but R is true
13. • **Assertion (A):** Epiphytic orchids are adapted to grow on stems and branches of big trees.
- **Reason (R):** This adaptation ensures them high light intensity as they remain in an elevated position from the ground surface.
- a. Both A and R are true and R is the correct explanation of A
  - b. Both A and R are true but R is not a correct explanation of A
  - c. A is true but R is false
  - d. A is false but R is true
14. • **Assertion (A):** Biomass and energy are interdependent.
- **Reason (R):** Biomass and energy are interdependent by suitable conversion technology.
- a. Both A and R are true and R is the correct explanation of A
  - b. Both A and R are true but R is not a correct explanation of A
  - c. A is true but R is false
  - d. A is false but R is true

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15. • **Assertion (A):** If sufficient water is available, deserts are highly productive.
- **Reason (R):** Evaporation of water in deserts results in accumulation of salts at the surface.
- a. Both A and R are true and R is the correct explanation of A
- b. Both A and R are true but R is not a correct explanation of A
- c. A is true but R is false
- d. A is false but R is true