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## NET, IAS, State-SET (KSET, WBSET, MPSET, etc.), GATE, CUET, Olympiads etc.: Botany MCQs (Practice\_Test 78 of 104)

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1. During the development of ascus and basidium, which one of the following phenomena is common to both?
  - a. Exogenous development of reproductive spores
  - b. Fusion of two nuclei and subsequent meiotic division
  - c. Crozier formation and clamp connection
  - d. Endogenous development of reproductive spores
2. In climate meiosis, the distal segment of the daughter chromatist segregate form each other at
  - a. The anaphase-I
  - b. The anaphase-II
  - c. Partially at anaphase-I and partially at anaphase-II
  - d. Duskiness
3. If cross is made between two plants o Aa Bb cc Dd and Aa bb CC DD genotypes, then what will be the expected frequency of obtaining a progeny with AA Bb Cc Dd?
  - a.  $\frac{1}{28}$
  - b.  $\frac{1}{64}$
  - c.  $\frac{1}{32}$
  - d.  $\frac{1}{16}$
4. Assume that a coding gene has the following nucleotide sequence:
  - C T G G C A T G C 10 11 12 13 14 15 16 17 18
  - T T C G G A A A A
  - Which one of the following mutations would probably produce the greatest change in the activity of the protein for which this gene codes?
    - a. Substitution of A for G in position 3
    - b. Deletion of C at position 5
    - c. Deletion of A at position 16

- d. Addition of G between positions 14 and 15
5. Mitochondrial morphology is maintained by balancing the active absorption of water and active secretion by the mitochondrion. Hence mitochondria are likely to swell in the presence of
- a. ATP
  - b. Hypertonic solution
  - c. Uncoupling agent
  - d. Enzymes catalysis oxidative phosphorylation
6. Which one of the following procedures is to be adopted to eliminate an undesirable penetrate hereditary trait from an otherwise superior variety?
- a. Unprogressive hybridization
  - b. Chemical application
  - c. Changing agronomic proactive
  - d. X-ray irradiation
7. Which one of the following statements correctly defines the term recessive epistasis?
- a. A situation in which one allele does not allow its alternative form to express
  - b. A situation in which a gene pair in homozygous recessive condition masks the effect of one or both the members of another gene pair
  - c. A situation in which the dominant allele of one gene pair masks the effect of both members of another gene pair
  - d. A situation in which the dominant allele of the first gene pair masks the effect of both the members of the second gene pairs and the dominant allele of the second gene pair masks the effect of both the members of the first gene pair.
8. Which of the following characteristics make the endonuclease a restriction enzyme?
- a. Restricted infection of bacteria by certain viruses (bacteriophages) by degrading the viral DNA.
  - b. Ability to cut only the double-stranded DNA
  - c. Ability to cut DNA into specific fragments containing identifiable genes, at any position.
  - o Select the correct answer using the codes given below:
    - a. 1 and 2
    - b. 1 and 3
    - c. 2 and 3
    - d. 1,2 and 3
9. Crown gall disease enhances
- a. Meristematic activity
  - b. Development of chloroplasts

- c. Reduction in leaf size
- d. Alteration in the morphology of flowers

10. Many pathogens produce cellulolytic enzymes which act upon the host cell wall. The correct sequence of the given cellulolytic enzymes that are involved in the breakdown of cellulose is

- a. Cellobiase, C1 enzyme, Cx enzyme
- b. Cellobiase, Cx enzyme, C1 enzyme
- c. C1 enzyme, Cx enzyme, Cellobiase
- d. Cx enzyme, C1 enzyme, Cellobiase

11. In the context of rice diseases, match List I with List II using the codes given below the lists:

List-I	List-II
<ul style="list-style-type: none"> <li>a. Helminthosporium oryzae</li> <li>b. Rhizoctonia solani</li> <li>c. Fusarium moniliforme</li> <li>d. Ephelis oryzae</li> </ul>	<ul style="list-style-type: none"> <li>a. Gibberella fujikuroi</li> <li>b. Balanisa oryzae</li> <li>c. Cochliobolus miyabeanus</li> <li>d. Corticium sasaki</li> </ul>

*Table Supporting: NET, IAS, State-SET (KSET, WBSET, MPSET, Etc.) , GATE, CUET, Olympiads Etc. : Botany MCQs*  
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**D**

**2341    3421**

**ABC      4312    3412**

12. Which of the following pairs are correctly matched?

- a.
  - Match Item 1: Photoplast fusion
  - Match Item 2: Parasexual hybridization
- b.
  - Match Item 1: Biogas
  - Match Item 2: Ethylene
  - Match Item 1: Plasmid
  - Match Item 2: Circular DNA

○ Select the correct answer using the codes given below:

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

13. Although genetically engineered crop plants carrying traits like disease/herbicide/pest resistance would be very advantageous, they may yet pose a serious threat to the environment due to
- a. Excessive use of herbicides to maintain such plants
  - b. Excessive use of synthetic fertilizers of nourish such plants
  - c. Sudden loss of the introduced gene as a result of genotypic competition
  - d. Unpredictability of the consequences of introducing a gene in a new host
14. Biological control of some soil-borne plant diseases has been achieved through the use of
- a. Rhizobacteria
  - b. Streptomyces
  - c. Nostoc
  - d. Micrococcus
15. In an effort to harness energy from biomass, which one of the following groups CANNOT be economically used as a direct combustible fiber?
- a. Paddy straw and cotton stalk
  - b. Bajra and wheat straw
  - c. Woody shrubs and urban garbage
  - d. Rice Husk And Bagasse