

Examrace

Competitive Exams: Botany MCQs (Practice_Test 10 of 104)

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1. Which one of the following does NOT exhibit seed dormancy?
 - a. Rhizophoi
 - b. Xanthium
 - c. Phaseolus
 - d. Cassia
2. Aleurone is the outermost layer of endosperm in cereals. It helps in
 - a. Protection of endospermic
 - b. Endosperm growth
 - c. Accumulation of reserve food in the endosperm
 - d. Mobilization of reserve food in the endosperm
3. The pollen-pistil rejection reaction in a plant showing ametophytic selfincompatibility usually occurs
 - a. On the stigma
 - b. In the style
 - c. In the ovary before entering the embryo sac
 - d. During gametic fusion
4. The persistent substance involved in saprophytic incompatibility and stored in the exine is derived from
 - a. Tapetum
 - b. Microspore
 - c. Anther locule
 - d. Stigmatic papillae
5. The fluid mosaic model of cell membrane postulates that a lipid bilayer
 - a. Has some embedded protein and some proteins on the surface
 - b. Coated with a layer of proteins on each surface

- c. Is coated with a layer of proteins on the outer surface only
 - d. Has proteins embedded in itself and none on the surface
6. The function of Lysosome is to
- a. Synthesize various cellular macromolecules
 - b. Carry out digestion of all cytoplasm components
 - c. Ingest material from the extracellular environment
 - d. Recycle cellular material and digest material taken in from the environment
7. Consider the following statements:
- a. In plant cells, cytokinesis starts with the formation of the phragmoplast.
 - b. Phragmoplast comprises interzonal microtubules and Golgi vesicles.
 - c. Primary cell wall is produced by microtubules.

Which of the above statements are correct?

- a. 1 and 3
 - b. 1 and 2
 - c. 2 and 3
 - d. 1,2 and 3
8. Which one of the following discoveries provided the strongest evidence for the chromosome theory of heredity?
- a. Discovery of sex chromosomes
 - b. Discovery of polyploidy
 - c. Discovery of giant chromosomes
 - d. Discovery of supernumerary chromosomes
9. What is the correct sequence of stages in Prophase I of meiosis?
- a. Leptotene, Pachytene, Zygotene, Diakinesis, Diplotene
 - b. Zygotene, Leptotene, Pachytene, Diplotene, Diakinesis
 - c. Leptotene, Zygotene, Pachytene, Diplotene, Diakinesis
 - d. Zygotene, Pachytene, Leptotene, Diakinesis, Diplotene
10. A yellow and round seeded pea plant is crossed with green and wrinkled seeded pea plant and the F₁ of this cross is backcrossed to the homozygous recessive parent. The

progeny will appear in the ratio of

- a. 9: 3: 3: 1
- b. 1: 1: 1: 1
- c. 9: 3: 4
- d. 12: 3: 1

11. Genetically engineered male sterile crop plants have been produced by inserting

- a. Opaque 2 gene
- b. Virus coat-protein gene
- c. Bamase gene
- d. Chitinase gene

12. Haploids are considered better genetic stock because they

- a. Require only half of the nutrients
- b. Are best for cytological studies
- c. Grow better under all conditions
- d. Form homozygous individuals on depolarization

13. Ti plasmid used in genetic engineering is obtained from

- a. *Bacillus thuringiensis*
- b. *Agrobacterium rhizogenes*
- c. *Agrobacterium tumefaciens*
- d. *Pseudomonas syringae*

14. Consider the following steps during recombinant DNA technology:

- a. Breaking of donor DNA using restriction enzyme
- b. Culture of cloned bacteria containing the fragment of donor DNA
- c. Isolation of suitable plasmid
- d. insertion of recombinant DNA through cloning
- e. Joining of donor DNA with a suitable plasmid using ligase

The correct sequence of these is

- a. 1, 3,2, 4,5
- b. 3.2,1, 5,4

c. 1,3, 5,4,2

d. 5, 1,3, 4,2

15. Terminator seeds produced by giant seed companies using techniques of genetic engineering are in fact
- a. Hybrid seeds which germinate in the farmer's field but do not produce seeds in the next generation
 - b. Hybrid seeds which give a very high yield
 - c. Seed which germinate and produce incompatible gametes
 - d. Seeds that develop into fertile plants which produce self-terminable seeds

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