

## Examrace

### Competitive Exams: Botany MCQs (Practice\_Test 20 of 104)

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1. A male germ unit in Brassica sp. Comprises of
  - a. The entire pollen grain
  - b. One sperm and the vegetative nucleus
  - c. The two sperms
  - d. Both the sperms and the vegetative nucleus
2. If more than one pollen tubes discharge their contents inside an embryo sac and the sperm fusing with the egg is derived from one tube and the one fusing with the secondary nucleus from another tube, it is called
  - a. Heterofertilization
  - b. Polyspermy
  - c. Heterospermy
  - d. Polygamy
3. Heterospory and ligulate leaves are the characteristic features of
  - a. Lycopodium
  - b. Equisetum
  - c. Selaginella
  - d. Adiantum
4. In a cross between a tetraploid female plant and a diploid male plant of mulberry, the endosperm would be
  - a. Hexaploid
  - b. Triploid
  - c. Tetraploid
  - d. Pentaploid
5. In citrus, adventitious embryos are derived from

- a. Integuments
  - b. Nucellus
  - c. Synergids
  - d. Zygotic embryo
6. Arabidopsis is a popular experimental material to study the genetic control of embryo development in higher plants because of
- a. Short life cycle
  - b. Smaller genome
  - c. Small size of plant
  - d. Amenability to tissue culture
7. Match list I with List II and select the correct answer:

List-I (Name of chemical substance)	List-II (Chemical structure)
A. Indoleacetic acid	1. Benzene
B. a-naphthalene acetic acid	2. circular
C. Indolepyruvic acid	3. chain
D. Indolebutyric acid	4. anonymous

**A B C D**

- a. 2 3 4 1
  - b. 1 4 3 2
  - c. 2 4 3 1
  - d. 1 3 4 2
8. The precursor of Serine and Cytokine is
- a. Oxalocetate
  - b. 3-phosphoglycerate
  - c. Phosphoenolpyruvate
  - d. Erythrose-4-phosphate

9. In heterozygote reciprocal translocation, a segment from one chromosome becomes attached to a non-homologous chromosome. Such chromosomal aberration can be detected cytological in the meiotic prophase-I in the form of a
- Quadrivalent forming a cross
  - Bivalent forming a loop
  - Linear quadrivalent twice as thick as a bivalent
  - Quadrivalent with one pair of homologues shorter than the other
10. The scutellum in a grass embryo is equivalent of which organ in the embryos of other monocots:
- Cotyledon
  - Epicotyl
  - Plumular leaf
  - Radicle
11. 56. What will happen to transcription in the absence of Sigma factor of RNA polymerase?
- Transcription will not take place
  - Transcription will initiate from the initiation codon
  - Transcription will initiate from many random sites
  - Transcription will initiate from the other strand
12. Consider the following statements:
- Copper is present in Cytochrome oxidase
  - Pantothenic acid is the precursor of Coenzyme A
  - Thiamine pyrophosphate is the prosthetic group in decarboxylases
  - Zinc is present in RNA and DNA polymerases
- Which of these statements are correct?
- 1 and 2
  - 2,3 and 4
  - 1,2, 3 and 4
  - 1,3 and 4
13. In certain plants viable pollen is formed but it cannot pollinate owing to nonrupture of anther wall. This condition is referred to as

- a. Cytoplasm sterility
  - b. Functional sterility
  - c. Genic sterility
  - d. Genetic and cytoplasmic sterility
14. During the germination of pulse seeds, the major food reserves are degraded by the activity of
- a. Amylase
  - b. Lipase
  - c. Protease
  - d. Cellulose
15. Commercial cork is obtained from
- a. *Luglans regia* of which it is a dead tissue with thickened walls with the deposition of lignin
  - b. *Betula alba* of which it is a semi dead tissues with thickened walls and with the deposition of suberin
  - c. *Hevea brasiliensis* of which it is constituted by some living and more of dead tissues with thickened walls and with the deposition of cutin
  - d. *Quercus suber* of which it is a dead tissue with thickened walls by the deposition of suberin

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