# Competitive Exams: Agriculture MCQs (Practice-Test 8 of 56)

1. The major organic cementing agent in soilaggregate formation is

    a. Lipids

    b. Proteins and protein derivatives

    c. Polysaccharides

    d. Organic acids

2. From Q/I relationship described by Beckett (1964), a high PBCK indicates that:

    a. Availability of potassium in the soil is excellent

    b. The soil needs potassium fertilization

    c. The soil has been recently limed

    d. The soil needs timing

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

| List-I (Organism) | List-II (Associated function) |
|---|---|
| a. Pseudomonas | a. Photosynthetic N2 fixation |
| b. Trichoderma | b. Phosphorus solubilisation |
| c. Azospirillum | c. Composting |
| d. Azolla-abaena | d. N2 fixation |

**A B C D**

a. 3 1 4 2

b. 2 3 4 1

c. 2 3 1 4

d. 4 2 3 1

4. Which one of the following is the correct quantity of Zinc sulphate required to prepar 100 literes of 2000 ppm solution for foliar spray? Quantity of Zinc sulphate required (in gram):

   a. 20

   b. 100

   c. 200

   d. 2000

5. Which one of the following is the correct stage through which the protein in the soil organic matter breaks down to release ammonia?

   a. Protein-proteoses-peptones-amino acids-ammonia

   b. Proteins-proteoses-amino acids-peptones-ammonia

   c. Proteins-peptones-proteoses-amino acids-ammonia

   d. Proteins-peptones-proteoses-peptones-ammonia

6. Consider the following elements:

   a. Magnesium

   b. Iron

   c. Nitrogen

   d. Manganese

   The elements present in the porphyrin structur of chlorophyll molecule are:

a. 1 and 3

b. 1 and 4

c. 2 and 3

d. 2 and 4

7. consider the following statements:

a. Mg is a co-ctor for many enzymes activating phosphorylation in the glycolysis and tricarboxylic acid cycle.

b. Mg limits the rate of photosynthetic process as it is reqired to activate rUBP carboxyl's

c. Protein synthesis is dependent on the presence of Mg in plant.

Which of the above statement are correct?

a. 1 and 2

b. 1 and 3

c. 2 and 3

d. 1, 2 and 3

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

| List-I (Micronutrients) | List-II (Typical deficiency symptoms) |
|---|---|
| a. Boron | a. Interregnal white chlorosis appearing first on young leaves, margins and tips scorched |
| b. Zinc | b. Terminal leaves necrotic, shed prematurely, apical meristems blacken and die, flower development and seed production impaired. |
| c. Iron | c. Light yellow chlorosis of leaves, leaf blade fails to expand |
| d. Molybdenum | d. Leaves chlorotic and necrotic young growth first affected, resetting, whitening of upper leaves in monocots, chlorosis in lower leaves in divots. |

**A B C D**

a. 3 2 1 4

b. 1 2 4 3

c. 2 4 3 1

d. 2 4 1 3

9. Consider the following processes:

a. Oxidation of carbohydrates

b. Absorption of oxygen

c. Liberation of carbon dioxide, water and energy

d. Oxidation of pyruvic acid

The correct sequence of these processes in respiration of upland rice plant growth at an altitude of 725 meter would be:

a. 2, 1, 3, 4

b. 2, 1, 4, 3

c. 3, 2, 4, 1

d. 4, 2, 1, 3

10. Which one of the following pair is correctly matched?

a. Photoperiodism—Influence of light on germination of seeds

b. Photolysis—Influence of light on the rate of $CO_2$

c. Photomorphogenesis—Influence of duration of light on flowering behavior

d. Photropism—Movement of plant organs towards light

11. Consider the following compounds:

a. Tryptamine

b. Indole acetaldehyde

c. Indole acetic acid

d. Tryptophane

The correct sequence of these compounds in the order of pathway of I. A. A. Synthesis would be

a. 4, 1, 3, 2

b. 1, 4, 2, 3

c. 3, 2, 4, 1

d. 4, 1, 2, 3

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

| List-I (Growth Substances) | List-II (Physiological effects) |
|---|---|
| a. Cytokinins | a. Promote cell enlargement |
| b. Auxins | b. Promote cell division |
| c. Gibberellins | c. Accelerate the abscission of leaves flower and fruits |
| d. Ethylene | d. Indices parthenocarpic fruit set |

| | A | B | C | D |
|---|---|---|---|---|
| a. | 1 | 2 | 4 | 3 |
| b. | 3 | 1 | 2 | 4 |
| c. | 2 | 1 | 4 | 3 |
| d. | 2 | 3 | 1 | 4 |

13. Consider the cross, Aa Bb x aa bb; where genes A and B ar linked in repulsion phase. Which one of the following phenotypic frequencies in the progeny are most likely to be recovered? AB Ab aB ab

a. 33 16 17 34

b. 16 33 34 17

c. 25 25 25 25

d. 56 18 18 6

14. Which one of the following sets is the correct sequence of events in the cell?

a. Transcription, translation and protein synthesis

b. Transcription, protein synthesis and translation

c. Translation, transcription and protein synthesis

d. Protein synthesis, transcription and translation

15. The performance of double cross hybrid (A-C) (B-D) can be predicated from the average performance of the combination of

a. A-B, A-C, C-B and C-D

b. A-B, A-D, B-C and C-D

c. A-B, A-C, A-D, and B-C

d. A-B, C-D, A-C and B-D

16. Consider the following pair of types of crosses and possible combinations:

a. Single cross—(n-/2)

b. Three-y cross—N (n- (n-/2) )

c. Double cross—N (n- (n- (n – 3)/4) )

Which of these pair are correctly matched?

a. 1, 2 and 3

b. 1 and 2

c. 2 and 3

d. 1 and 3

17. Consider hybrid varieties of the following crops:

a. rice

b. Tomato

c. Maize

d. Bajra

The correct chronological order in which these varieties have been developed in India is

a. 3, 4, 1, 2

b. 2, 4, 1, 3

c. 3, 4, 2, 1

d. 4, 3, 2, 1

18. The variety of wheat developed from spring-winter wheat crosses is termed as

a. Kolyansona

b. Sonalika

c. WL 711

d. VEErY

19. Hybrid seed production process involves the following steps:

a. testing of the combining ability

b. production of inbred lines

c. selection of inbred lines

d. production of F1-ed

The correct sequence of these steps is

a. 1, 2, 3, 4

b. 3, 1, 2, 4

c. 2, 3, 1, 4

d. 2, 1, 3, 4

20. Tetrazolium test is used to determine

a. Seed purity

b. Seed germination

c. Seed viability

d. Seed quality

21. Match List I (Definition) with List II (Terminology) and select the correct answer:

| List-I | List-II |
|---|---|
| a. Immediate effect of pollen on the character of endosperm | a. Monosomic |
| b. A plant with a chromosome which has no homologue present | b. Clestogamy |
| c. Pollination and fertilization in an unopened flower bud | c. Epistasis |
| d. One gene hides the effect of a second gene when both present in a chromosome | d. Xenia |

| | A | B | C | D |
|---|---|---|---|---|
| a. | 1 | 4 | 2 | 3 |
| b. | 4 | 1 | 3 | 2 |
| c. | 3 | 2 | 1 | 4 |
| d. | 4 | 1 | 2 | 3 |

22. Which one of the following is NOT correctly matched?

a. A localized region in the chromosome to which the spindle fibr is attached and controls the movement of chromosomes during mitosis and meiosis—Kinetochore

b. When a population is improved serially over generations, first for one character then for another and so on—Tandem selection

c. Effectiveness of the environment in changing the frequency of alleles in a population of individuals—Mutation

d. Polygene affecting the same trait with each enhancing the phenotype Additive factors

23. Match List I (Description of phase of mitosis) with List II (Phase-de) and select the correct answer:

| List-I | List-II |
|---|---|
| a. Pr DNA-synthesis phase | a. Cycle G1 |
| b. DNA-synthesis phase | b. Cycle M |
| c. Post DNA-synthesis phase | c. Cycle S |
| d. Main mitotic-vision phase | d. Cycle G1 |

| | A | B | C | D |
|---|---|---|---|---|
| a. | 1 | 2 | 3 | 4 |
| b. | 4 | 3 | 1 | 2 |
| c. | 3 | 4 | 1 | 2 |
| d. | 4 | 3 | 2 | 1 |

24. Match List I (Sex determination procedure) with List II (Species) and select the correct answer:

| List-I | List-II |
|---|---|
| a. Male ar XY in chromosomal constitution | a. Bonellia |
| b. Females ar XY in chromosomal constitution | b. Drosophila |
| c. Chromosomal balance theor of sex determination is applied | c. Chicken |
| d. Diffusible chemicals ar known to be involved | d. Mouse |

| | A | B | C | D |
|---|---|---|---|---|

a. 3 4 2 1

b. 3 4 1 2

c. 4 3 1 2

d. 4 3 2 1

25. Which one of the following statements regarding selfing is correct?

a. It improves heterozygosity

b. It does not have any effect on heterozygosity

c. It reduces heterozygosity

d. It decreases homozygosity

26. Which one of the following sets is the correct sequence of the floral parts in a bisexual flower?

a. Calyx, Androecium Gynaecium. Corolla

b. Corolla, Calyx. Gynaecium. Androecium

c. Calyx, Corolla. Androecium. Gynaecium

d. Calyx, Corolla. Gynaecium.

Androecium

27. From a heterozygous bean population, varies pur lines wer isolated by repeated selfing. Considering n heterozygous gene pairs, the proportion of completely homozygous plants after m generation can be best explained by

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

| List-I (Crop) | List-II (Pedigree) |
|---|---|
| a. Brassica juncea | a. Craphanus sativus x B oleracea |
| b. B. Napus | b. B nigr x B oleracea |

c. B. Carinata

d. raphanobrassica

c. B oleracea x B campestris

d. B nigr x B campestris

| | A | B | C | D |
|---|---|---|---|---|
| a. | 4 | 2 | 3 | 1 |
| b. | 2 | 4 | 1 | 3 |
| c. | 4 | 3 | 2 | 1 |
| d. | 1 | 3 | 2 | 4 |

29. When a large number of phenotypic ally similar appearing plants ar selected and harvested and their seeds bulked, the resulting mixtur is known as:

    a. Bulk method of breeding

    b. Pedigree breeding

    c. Mass selection

    d. Multilines

30. When a cultivated sorghum is crossed with one of its wild type x, 50% viable plants could be obtained. The x may belong to

    a. Primar gene pool

    b. Secondar gene pool

    c. Tertiar gene pool

    d. Extinct ancestor