

TELANGANA UNIVERSITY
S.S.R. PG COLLEGE, NIZAMABAD (C.C:5029)
PAPER – IV PLANT PHYSIOLOGY MSC (BOTANY)
INTERNAL-II QUESTION BANK

I. Multiple choice questions

10 X ½= 5 Marks

1. Which plant hormone is primarily responsible for cell elongation and division (C)
A. Absciscic B. Gibberellin C. Auxin D. Ethylene
2. What is the main function of ethylene in plants (C)
A. Promoting root growth B. Inducing flowering
C. Ripening of fruits D. Breaking Dormancy
3. Which hormone is known as the stress hormone in plants (C)
A. Gibberellin B. Auxin C. Absciscic Acid D. Cytokinin
4. The term apical Dominance refer to (C)
A. The Dominance of Lateral buds over apical buds
B. The growth of lateral branches due to ethylene
C. The Dominance of apical buds over lateral buds
D. The growth of roots due to auxin
5. Which plant hormone is often used to induce flowering in short day plants (B)
A. Absciscic Acid B. Gibberellin C. Auxin D. Ethylene
6. Indole 3 Acetic acid is this most common naturally occurring Plant hormone of _____ Class (D)
A. Gibberellin B. Ethylene C. Cytokinin D. Auxin
7. Which is gaseous hormone (B)
A. IBA B. Ethylene C. Absciscic Acid D. NAA
8. A Widely Used rooting hormone is (B)
A. 2,4-D B. NAA C. Cytokinin d) 2,4,5 - T
9. Formation of the nodule is induced by (A)
A. IAA B. NAA C. IBA D. None
10. The precursor of indole – 3- acetic acid (A)
A. Tryptophan B. Methionine C. Glycine D. Isopentynyl pyrophosphate
11. Nitrogen is absorbed by the plants in the form of (D)
A. Ammonium B. Nitrites C. Glycine D. All

12. Nitrogen fixation is the conversion of (B)
 A. N_2 to N B. N_2 to NH_3 C. N_2 to NO_3 D. N_2 to Urea
13. Important enzyme involved in nitrogen fixation are (A)
 A. Nitrogenase B. Hexokinase C. Hydrogenase D. Peptidase
14. How many molecules of ATP are required to fix one molecule of nitrogen (D)
 A. 12 B. 20 C. 6 D. 16
15. Conversion of nitrates to nitrogen is called (D)
 A. Ammonification B. Nitrification C. Nitrogen D. Denitrification
16. Conversion of nitrites to nitrates is done by (C)
 A. Nitrococcus B. Clostridium C. Nitrobacter D. Nitrosomonas
17. The Plant hormone mainly responsible for seed germination is (B)
 A. Auxin B. Gibberellin C. Ethylene D. Cytokinin
18. The primary form of sulfur absorbed by plants (D)
 A. Elemental sulfur (s) B. Sulfide (S^2) C. Sulfite (SO_3^{2-}) D. Sulfate (SO_4^{2-})
19. In plants, sulfate assimilation primarily occurs in (C)
 A. Roots B. Stems C. Chloroplasts D. Mitochondria
20. Which enzyme is crucial for the reduction of sulfate to sulfite (C)
 A. Sulfur reductase B. ATP Sulfurase C. Sulfite reductase D. Sulfide reductase

II. Fill in the Blanks

10 X ½ = 5 Marks

1. Potato Plants contain a high level of salicylic Acid (SA)
2. Nitrogen is the fourth most abundant nutrient element in plants
3. Most of the plants absorb their nitrogen in the form of Nitrates
4. The bond between two amino acids is called Peptide bond
5. Brassinolide is the most active component of brassinosteroids
6. The form of phytochrome is active and involved in many light dependent process is Pfr
7. Phytochrome exists in Two forms.
8. Seed germination is a light dependent process regulated by phytochrome
9. Plants that flowers under the photoperiods, less than the critical day length are called Short Day plants
10. Wheat and barley are Long day plants

11. Gibberellins & Cytokinin are the plant hormones can be used to break dormancy
12. Sulphur containing Amino acids are Cysteine, Methionine
13. Auxin is the first growth hormone to be discovered in plants
14. Hormones are naturally occurring organic molecules found in plants
15. Avena curvature test is a bio assay for auxins
16. Auxin means To increase
17. The active material of the Fungus, Gibberella fujikuroi is Gibberellin
18. Cytokinins are the regulators of cell Division
19. Dormin is the another name for Abscissic Acid
20. Salicylic acid was initially isolated from the bark of Salix alba

III. One word answers

5X 1 = 5 Marks

1. What is seed germination ?
A. Seed germination is the process by which a seed begins to grow and develops into a seedling.
2. What are Neutrophils ?
A. Phytochrome is a type of photoreceptor protein food in plants
3. What are the methods of breaking seed dormancy?
A. Scarification, stratification, soaking, Hormone treatment
4. What is seed dormancy?
A. Seed Dormancy is a state where seeds are unable to germinate under favorable conditions
5. What is calmodulin ?
A. Calmodulin is a calcium binding protein found in all eukaryotic cells.
6. What is sulphur assimilation ?
A. Sulphur assimilation is the process by which plants and micro organisms incorporate sulphur into organic compounds
7. What is Nitrogen fixation ?
A. Nitrogen fixation is the process by which atmospheric nitrogen (N_2) is converted into a usable form for living organisms
8. What are the functions of calmodulin ?

A. Regulation of enzyme activity, plant defense responses.

9. What are the examples of plant growth promoters ?

A. Auxins, Gibberellins, cytokinins

10. What are the examples of plant growth inhibitors ?

A. Absciscic Acid, Ethylene

IV. Assignment

1X 5 =5 Marks