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Directorate of Distance Education (DDE) KUPPAM – 517 426:: A.P. Course : II year M.Sc Botany Paper – I Plant Development and Reproduction

Answer any **<u>THREE</u>** of the following **<u>FIVE</u>** Questions.

DRAVIDIAN

- 1. What is morphogenesis? Describe the development and differentiation with examples?
- 2. What is shoot Apex? Describe the cytological and molecular analysis of shoot apical meristems?
- 3. What are the different stages involved in flower development? Briefly describe the genes controlling floral organ differentiation?
- 4. What is microsporogenesis? Describe the process of pollen development?
- 5. Describe various types of embryogenesis in dicots?



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Answer any **<u>THREE</u>** of the following **<u>FIVE</u>** Questions.

- 1. What are the different types of soils? Describe them with respective to Physical and chemical properties?
- 2. Describe trophic organization?
- 3. What is pollution? Describe water pollution?
- 4. What is biodiversity? Describe various types of biodiversity?
- 5. Describe the Concepts of phyto Geography?



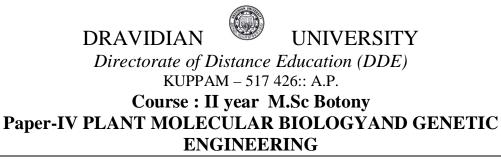
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Directorate of Distance Education (DDE) KUPPAM – 517 426:: A.P. Course :II year M.Sc Botony Paper-III PLANT PHYSIOLOGY AND METABOLISM

Answer any **<u>THREE</u>** of the following **<u>FIVE</u>** Questions.

- 01. What is the concept of chemical potential and Redox potential?
- 02. Describe the mechanism of phtophosphorylation?
- 03. Describe the biosynthesis of starch and sucrose?
- 04. How auxins and gibberellins are synthesized in plants? What are their mechanisms of action?
- 05. Describe water and salt tolerance in plants?



Answer any **<u>THREE</u>** of the following <u>**FIVE**</u> Questions.

- 1. What is DNA polymorphism? Describe various structural conformations of DNA?
- 2. What is genome? How c-value and cot curves are useful in analyzing the plant genome?
- 3. What is transcription? Describe the plant transcriptional factors involved during gene expression?
- 4. What is cloning? How restriction enzymes are useful during the process of cloning?
- 5. What is transgenic plant? Describe the transgenic plants for salinity and drought tolerance