

**(DBOT21)**

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**M.Sc. (Final) DEGREE EXAMINATION, DEC. – 2016**

**BOTANY**

**(Paper - I) : Development Biology of Angiosperms and Ethnobotany**

**Time : 3 Hours**

**Maximum Marks : 70**

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**SECTION – A**

**(5 × 6 = 30)**

**Answer five of the following**

**Q1)** Incompatibility

**Q2)** Polyembryony

**Q3)** Apical meristem

**Q4)** Dormancy

**Q5)** Ethnobotany in relation with other disciplines.

**Q6)** Sacred groves in Guntur district

**Q7)** Ethnology of any tribal residing in AP

**Q8)** Ethnobotanical research

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**SECTION – B**  
**Answer all of the following**

**(4 × 10 = 40)**

**Q9)** a) Describe the structure and development of embryo.

OR

b) Write an essay on polyembryony.

**Q10)** a) Describe the anatomical differences between the stems of dicots and monocots.

OR

b) Describe the anomalous secondary thickening in a monocot stem.

**Q11)** a) Describe the scope and history of traditional medicine in India.

OR

b) What is the significance of sacred groves?

**Q12)** a) Explain the major medicinal plants cultivated in Andhra Pradesh.

OR

b) Describe the importance of phytochemicals in modern medicine.



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**M.Sc. (Final) DEGREE EXAMINATION, DEC. – 2016**

**Second Year**

**BOTANY**

**(Paper - II) : Microbiology, Mycology and Plant Diseases**

**Time : 3 Hours**

**Maximum Marks : 70**

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**SECTION – A**

**(5 × 6 = 30)**

***Answer five of the following***

**Q1)** Beregey's classification of bacteria

**Q2)** Heterotrophs

**Q3)** Myxomycotoma

**Q4)** Cultivation of mushrooms

**Q5)** Phytoalexins

**Q6)** Forecast of plant diseases

**Q7)** Powdery mildew of cucurbits

**Q8)** RTV disease

**SECTION – B**  
**Answer all of the following**

**(4 × 10 = 40)**

**Q9)** a) Describe the role of bacteria in carbon cycle.

OR

b) Classify the plant viruses. How they are transmitted and how to control them?

**Q10)** a) Distinguish between Zygomycotina and Ascomycotina.

OR

b) Describe the economic importance of fungi.

**Q11)** a) Give an account of symptoms caused by pathogenic bacteria.

OR

b) Describe the entry and establishment of pathogens.

**Q12)** a) Describe the epidemiology and control of damping off vegetables.

OR

b) Write an essay on biological control of plant diseases.



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**M.Sc. (Final) DEGREE EXAMINATION, DEC. – 2016**

**BOTANY**

**(Paper – III) : Cell Biology and Molecular Biology**

**Time : 3 Hours**

**Maximum Marks : 70**

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**SECTION – A**

**(5 × 6 = 30)**

**Answer five of the following**

**Q1)** Vacuole

**Q2)** Lysosomes

**Q3)** Cell signalling

**Q4)** Compound microscope

**Q5)** Transformation

**Q6)** Transduction

**Q7)** Transcription

**Q8)** Translation

**SECTION – B**

**(4 × 10 = 40)**

**Answer all of the following**

**Q9)** a) Describe the ultra structural organization of plant cell.

OR

b) Describe the structure and functions of endoplasmic reticulum.

**Q10)** a) Write an essay on genetics of cancer.

OR

b) Describe transposable elements.

**Q11)** a) How do you consider DNA as genetic material?

OR

b) Describe the fine structure of gene.

**Q12)** a) Explain DNA repair mechanisms.

OR

b) Describe gene regulation in prokaryotes.



**(DBOT04)**

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**M.Sc. (Previous) DEGREE EXAMINATION, DEC. – 2016**

**BOTANY**

**First Year**

**(Paper - IV) : Plant Physiology and Metabolism**

**Time : 3 Hours**

**Maximum Marks : 70**

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**SECTION – A**

**(5 × 6 = 30)**

***Answer five of the following***

**Q1)** Physical properties of water

**Q2)** Membrane transport proteins

**Q3)** Km value

**Q4)** C3 cycle

**Q5)** Glyoxalate cycle

**Q6)** GS-GOGAT

**Q7)** Heat shock proteins

**Q8)** Phytochrome

**SECTION – B**  
**Answer all of the following**

**(4 × 10 = 40)**

**Q9)** a) Describe water transport through xylem.

OR

b) Describe the role of micro and macro nutrients in nutrition.

**Q10)** a) Describe the structure of chloroplast.

OR

b) Describe photorespiration and its significance.

**Q11)** a) Describe the mechanism of nitrogen fixation.

OR

b) Give an account of classification, structure and functions of storage and membrane lipids.

**Q12)** a) Write an essay on physiological effects and mechanism of action of auxins.

OR

b) Describe photoperiodism and role of vernalisation.

