

Exam. Code : 210003
Subject Code : 4912

M.Sc. Botany 3rd Sem. (Batch 2020-22)

PLANT BIOCHEMISTRY

Paper : BOT-C615

Time Allowed—3 Hours] [Maximum Marks—50

Note :- Attempt FIVE questions in all, selecting at least ONE question from each section. The fifth question may be attempted from any section. All questions carry equal marks.

SECTION-A

1. Discuss the structure, properties and biological significance of water. 10
2. Describe the following :
 - (a) Handerson-Haselbach equation
 - (b) Covalent and noncovalent interaction
 - (c) Dephosphorylation of proteins. 10

SECTION-B

1. Discuss the process of gluconeogenesis and control of the blood glucose. 10
2. Describe the uronic acid fructose metabolism pathway. 10

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1

(Contd.)

SECTION-C

1. Discuss the metabolism of acylglycerols and sphingolipids. 10
2. Describe the biosynthesis of fatty acid. 10

SECTION-D

1. Give brief account of enzyme induction and repression. 10
2. Discuss the following :
 - (a) Activation Energy
 - (b) Strain and distortion theory
 - (c) Isozymes
 - (d) What is K_m and V_{max} ? 10

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2

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