

BACHELOR OF SCIENCE (CBCS - 2016 COURSE)
T. Y. B Sc. Sem-V : WINTER- 2022
SUBJECT : BOTANY : MOLECULAR BIOLOGY & BIOCHEMISTRY

Day : Friday

Date : 16-12-2022

W-14954-2022

Time : 02:00 PM-05:00 PM

Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
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- Q.1** Attempt **ANY TWO** of the following: [12]
- a) What is transgenic plants? Explain with examples.
 - b) Define protein and give its importance.
 - c) Explain structure and functions of amino acids.
- Q.2** Attempt **ANY TWO** of the following: [12]
- a) Give difference between cellulose and pectins.
 - b) Explain restriction endonucleases.
 - c) Explain polymer chain reaction.
- Q.3** Attempt **ANY TWO** of the following: [12]
- a) Give classification and functions of enzymes.
 - b) Explain various forms of DNA.
 - c) Explain lock-key hypothesis of enzyme.
- Q.4** Attempt **ANY THREE** of the following: [12]
- a) What is DNA replication?
 - b) Give structure and functions of RNA.
 - c) Explain DNA finger printing.
 - d) Give the classification of lipids.
- Q.5** Attempt **ANY FOUR** of the following: [12]
- a) Give principles of Gene cloning.
 - b) Give the properties of Lipids.
 - c) Factors affecting enzyme activity.
 - d) Give the functions of monosaccharides.
 - e) Give the significance of chloroplast transformation.

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