

T.Y.B.SC. SEM – V (CBCS - 2016 Course) : WINTER - 2018
SUBJECT : BOTANY-MOLECULAR BIOLOGY & BIOCHEMISTRY

Day : Saturday
Date : 20/10/2018

W-2018-0755

Time : 03.00 P.M. To 06.00 P.M
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) Explain synthesis of nucleotides.
- b) Define lipids and its classification.
- c) What is transgenic plants? Explain with examples.

Q.2 Attempt any **TWO** of the following: (12)

- a) Give difference between cellulose and pectin.
- b) Explain various forms of DNA.
- c) Explain structure and functions of amino acids.

Q.3 Attempt any **TWO** of the following: (12)

- a) Give the classification and functions of enzymes.
- b) Define proteins and give its importance.
- c) Distinguish between monosaccharides and oligosaccharides.

Q.4 Attempt any **THREE** of the following: (12)

- a) Explain the role of Agrobacterium in genetics.
- b) What is DNA replication?
- c) Give structure and functions of RNA
- d) Explain concept of genetic engineering.

Q.5 Attempt any **FOUR** of the following: (12)

- a) What is polymerase chain reaction?
- b) What are the factors affecting enzyme activity?
- c) Give the properties of lipids.
- d) Give the functions of polysaccharides.
- e) Give principles of gene cloning.

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