T.Y.B.SC. SEM – V (2014 COURSE) : WINTER - 2017

SUBJECT : MOLECULAR BIOLOGY & BIOCHEMISTRY

Day : **Wednesday**
Date : **01/11/2017**

Time : **03.00 PM TO 05.00 PM**
Max. Marks : 40

W-2017-0662

N.B.

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL.**
3) Draw neat and labeled diagram **WHEREVER** necessary.

Q.1 Attempt **ANY TWO** of the following: **(10)**

a) Describe Lock-key hypothesis in enzyme action.
b) Explain concept of genetic engineering.
c) Give classification of Monosaccharides.

Q.2 Attempt **ANY TWO** of the following: **(10)**

a) Explain *Agrobacterium* the natural genetic engineer.
b) Explain process of protein synthesis.
c) Give structure and functions of DNA.

Q.3 Attempt **ANY TWO** of the following: **(10)**

a) Give classification and properties of lipid.
b) Explain DNA figure printing.
c) Give functions of oligosaccharides and polysaccharides.

Q.4 Attempt **ANY FIVE** of the following: **(10)**

a) Explain transfer genes in plants.
b) Give any four functions of proteins.
c) Explain various forms of RNA.
d) What is gene cloning?
e) Write any two factors affecting enzyme activity.
f) Give any four functions of amino acids.
g) Write a note on Z forms of DNA.

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