

Roll No.

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Total No. of Pages : 01

Total No. of Questions : 08

M.Tech (Bio Tech) (2018 Batch) (Sem.-1)
BIOMOLECULES AND BIOTECHNOLOGY

Subject Code : MTBT-102-18

Paper ID : [75763]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :**1. Attempt any FIVE questions out of EIGHT questions.****2. Each question carries TWELVE marks.**

- Q1. Describe the structure of structural polysaccharides. (12)
- Q2. a) Describe the mechanism of catalysis of serine protease and lysozyme.
b) Write a note on molecules with high phosphoryl group transfer potential. (5+7)
- Q3. Write a detailed note on bioenergetics of redox reactions. (12)
- Q4. Write notes on the following :
a) G-proteins and their role in signaling.
b) Gated ion channels.
c) Biological functions of proteins. (5+4+3)
- Q5. a) Write a note on β -oxidation of fatty acids.
b) Biosynthesis of pyrimidines. (6+6)
- Q6. Discuss in details mechanisms of regulation of metabolism. (12)
- Q7. a) Describe the role of enzyme inhibitors as therapeutic agents.
b) Write a note on phospholipids (6+6)
- Q8. Discuss in detail three dimensional structures of proteins. (12)