3rd sem. End Sem. QP. (Nov. 2017) SSA

Reg. No.										

MANIPAL INSTITUTE OF TECHNOLOGY

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A constituent institute of Manipal University

III SEMESTER B.TECH. (BIOTECHNOLOGY)

END SEMESTER EXAMINATIONS, NOV/DEC 2017

SUBJECT: BIOCHEMISTRY [BIO 2102]

REVISED CREDIT SYSTEM

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

- Answer ALL the questions.
- Missing data may be suitable assumed.

1A.	Explain the properties of monosaccharides and its biomedical importance.	4
1B.	What are amino sugars? Explain their structure and significance.	4
1C.	What are torsion angles? Explain the planes involved with suitable example.	2
2A.	Explain the physiological activities of eicosanoids.	4
2B.	Elucidate the process of aerobic glycolysis and its regulation.	4
2C.	Describe the role of arginino succinate shunt.	2
3A.	Describe the mitochondrial and cytosolic reactions of urea cycle.	4
3B.	Explain the role of THF in purine metabolism.	4
3C.	Explain the competitive inhibition with suitable example.	2
4A.	Explain the relevance of pentose phosphate pathway with schematic representation.	4
4B.	What is zwitter ionic alcohol? Describe the role of peroxisomes in fatty acid metabolism.	4
4C.	Comment on the fate of citrate in cellular environment.	2
5A.	What is Gout? Explain different types and their causes.	4
5B.	Explain the role of citric acid cycle in amino acid metabolism.	4
5C.	Explain the conformations of the base pairs in the DNA.	2