

~~Dr. Jitendra~~
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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST 2 EXAMINATION- Oct. 2019

B.Tech. (IIIrd) Semester

COURSE CODE: 18B11BT312

MAX. MARKS: 25

COURSE NAME: BIOCHEMISTRY

COURSE CREDITS: 02

MAX. TIME: 1.5Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

- Q1.** Name the enzyme which is required for catalysis of elongation of glycogen chains initiated by glycogenin. **(1 mark) (COI)**
- Q2.** Define the significance of following. **(3 marks) (COI)**
- a) Thiamine pyrophosphate (TPP)
 - b) Pyruvate carboxylase
 - c) UDP-glucose
- Q3.** Explain the fate of pyruvate in aerobic and anaerobic conditions. **(3 marks, COII)**
- Q4.** Explain the following in brief. **(9 marks) (COII, COIII)**
- a) Differentiate between saturated and unsaturated fatty acids
 - b) Liposomes as carrier for drug delivery
 - c) Glycogen storage sites in humans
- Q5.** Differentiate between glycolysis and gluconeogenesis process. Also explain the three crucial steps and their alternate reactions by which glucose gets synthesized back from pyruvate. **(4 marks) (COIII)**
- Q6.** a) What is the significance of double bonds in unsaturated fatty acids? **(2 marks) (COI)**
b) Which configuration (Cis and Trans-Isomers) of unsaturated fatty acids is harmful to humans and explain the process of generation of these moieties in unsaturated fatty acids. **(3 marks) (CO III)**