

**18E63**

**B. Tech. EXAMINATION, 2020**

(Fifth Semester)

(C Scheme) (Main Only)

(BT)

BT305C

**INTERMEDIARY METABOLISM**

*Time : 2½ Hours]*

*[Maximum Marks : 75*

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt *Four* questions in all. All questions carry equal marks.

1. Discuss the fate of pyruvate in aerobic and anaerobic condition. Give pathway key points.
2. Describe the utility of the following :
  - (a) Regulation of TCA cycle
  - (b) Regulation of pyruvate dehydrogenase.
3. Discuss the beta-oxidation of fatty acids and its importance in metabolism of fatty acids. Give examples.
4. Discuss the mechanism involved in the biosynthesis of saturated fatty acids.
5. Write the urea cycle and describe their implication in regulation of other metabolic systems. Give examples.

6. Describe briefly the following :
  - (a) Nitrogen cycle
  - (b) Tyrosine synthesis
  - (c) Catabolism of pyrimidines.
7. Discuss the sites of ATP production in the cell and role of inhibitors in the electron transport chain (ETC).
8. Describe briefly the following :
  - (a) CAM metabolism
  - (b) Efficiency of photorespiration
  - (c) Structure of bacterial ATP synthase.