

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-III (OLD) EXAMINATION – WINTER 2017****Subject Code:133601****Date:06/11/2017****Subject Name: Introduction to Medicinal Chemistry and Biochemistry(Department Elective-I)****Time: 10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|-----|-----|--|----|
| Q.1 | (a) | Describe "Urea cycle."   | 07 |
|     | (b) | Describe the drug metabolism pathways.   | 07 |
| Q.2 | (a) | What do you mean by GMP?. Write the importance & applications of GMP in Pharmaceutical Industries.                                   | 07 |
|     | (b) | Write the MOA, metabolism & synthesis of anti-tuberculosis drug- Ethambutol.   | 07 |
|     |     | <b>OR</b>  |    |
|     | (b) | Write the MOA, metabolism & synthesis of anthelmintics-Mebendazole.  | 07 |
| Q.3 | (a) | Describe TCA cycle.  | 07 |
|     | (b) | Explain: Draw a neat labeled structure of DNA. Write the differences between DNA & RNA.  | 07 |
|     |     | <b>OR</b>  |    |
| Q.3 | (a) | Discuss Protein bio-synthesis in detail.   | 07 |
|     | (b) | Describe Glycolysis  | 07 |
| Q.4 | (a) | Draw a neat labeled structure of eukaryotic cell. Describe the functions of any five cell organelles.                                | 07 |
|     | (b) | Explain Michaelis-Menton's kinetics in detail.   | 07 |
|     |     | <b>OR</b>  |    |
| Q.4 | (a) | Describe the role of vitamins as coenzyme.   | 07 |
|     | (b) | Discuss Photosynthesis in detail.  | 07 |
| Q.5 | (a) | What are antineoplastic drugs?. What are its limitations in chemotherapy?. Write the MOA & synthesis of any one antineoplastic drug. | 07 |
|     | (b) | Write the SAR of sulphonamide antibacterial drug with suitable examples wherever is require.   | 07 |
|     |     | <b>OR</b>  |    |
| Q.5 | (a) | Write the SAR of 4-amino substituted Quinoline anti-malarial drug.   | 07 |
|     | (b) | Write the synthesis of any one anti fungal agent: Miconazole or Econazole.   | 07 |

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