

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III(OLD) • EXAMINATION – WINTER 2016

Subject Code:133601

Date:30/12/2016

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.

- Q.1** (a) Describe the reactions in synthesis of urea **07**
 (b) Explain the terms: DNA, Gene and Chromosome. Draw a neat labeled diagram of DNA. **07**
- Q.2** (a) Write the synthesis of any one antitubercular drug. Describe its metabolism & mode of action **07**
 (b) Write the SAR of 4-amino substituted Quinoline antimalarial drug with suitable examples. **07**
- OR**
- (b) Describe drug metabolism? Discuss the pathways of drug metabolism with examples. **07**
- Q.3** (a) (i). Describe the concept of Acidity & Basicity of drugs. **04**
 (ii). Interpret 'drug pKa value' **03**
 (b) Describe the pathways of Glycolysis in detail **07**
- OR**
- Q.3** (a) (i). Define drug. **02**
 (ii). Write about the classifications of drug with suitable examples. **05**
 (b) Explain the biosynthesis of protein in detail? **07**
- Q.4** (a) (i)What are Anthelminitics?. Give one example with structure of Benzimidazole class of anthelminitics. **03**
 (ii)Write a brief note on Antimalarial agent. Give two examples with structure of 7-Chloro-4-Amino Quinoline antimalarial agent. **04**
 (b) (i).Write a brief note on the importance & applications of Good Manufacturing Practices in Pharmaceutical Industry. **05**
 (ii).Write a note on Diagonostic agents. **02**
- OR**
- Q.4** (a) (i). What are the classifications of Antiamoebic agent?. Give one example in each class. **03**
 (ii). Describe the mode of action & metabolism of any one antiamoebic drug. **04**
 (b) (i). What are Anthelminitics?. **01**
 (ii).Write the synthesis of any one benzimidazole class of anthelminitic. Write its MOA. **06**
- Q.5** (a) (i). What are Antineoplastic drugs?. Give any two examples. Mention two limitations in antineoplastic drug therapy. **03**
 (ii).Write a note on (a). Antiseptic agent, (b). Disinfectant **04**
 (b) (i). What do you mean by photosynthesis? **02**
 (ii). Give a brief account of TCA cycle. **05**

OR

- Q.5 (a)** (i). What are Anti HIV drugs? Mention its classifications. Write one example in each class. **04**
- (ii). Explain the following terms in viral reproductive cycle: (1). Transcription, (2). Translation, (3). Reverse transcription **03**
- (b)** Explain “Michaelis-Menton’s kinetics” in detail. **04**
- 03**
