

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: M.PHARMA
BRANCH: PHARMACY

SEMESTER : I
SESSION : MO/19

SUBJECT: MPC103T ADVANCED MEDICINAL CHEMISTRY

TIME: 3:00 HOURS

FULL MARKS: 75

INSTRUCTIONS:

1. The question paper contains 7 questions each of 15 marks and total 105 marks.
 2. Candidates may attempt any 5 questions maximum of 75 marks.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) Outline the characteristics of a Prodrug with examples. [7]
Q.1(b) Summarize the applications of prodrug approach with proper examples. [8]
- Q.2(a) Explain about analogs produced by : (i) Homologous variations (ii) homology in cyclic compounds. [7]
Q.2(b) Illustrate the analogs produced by isosteric variations with examples. [8]
- Q.3(a) Explain the Hill langmuir equation. [7]
Q.3(b) Outline the various theories of drug receptor interaction. [8]
- Q.4(a) Explain the Michaelis Menton Equation. [7]
Q.4(b) Explain (i)Competitive (ii) Non competitive (iii) Un competitive inhibition [8]
- Q.5(a) Define the following(i)Enantiomer (ii) Eutomer (iii) Chiral centre. Give examples for each. [7]
Q.5(b) Explain the classification of first generation antihistaminics with one prototype structure. [8]
- Q.6(a) Construct the synthesis of (i)Clonidine (ii)Prazosin. Describe their uses. [7]
Q.6(b) Construct the structure of (i)Cyclophosphamide (ii)Actinomycin D (iii)Chlorambucil. [8]
- Q.7(a) Elaborate the synthesis of (i) Ibuprofen (ii) Paracetamol (iii) Aspirin [7]
Q.7(b) Create the synthesis of (i) Hydroxy amphetamine (ii) Phenylethanolamine. Write their particular uses. [8]

::::::29/11/2019::::::E