

**2017****M.Sc. 3rd Semester Examination****CHEMISTRY****PAPER—CEM-304***Full Marks : 40**Time : 2 Hours**The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.**Illustrate the answers wherever necessary.***(CBCS)**

Answer any four questions.

1. (a) Define pharmacodynamics and receptors? 4
- (b) What are the different type of receptors? 3
- (c) How catopril binds with enzyme ACE? Explain with a diagram. 3
2. (a) How receptor molecule accept the drug? 4
- (b) What is Agonist and antagonist drug? Write the structure of such drug and explain the mode of action. 6

*(Turn Over)*

3. (a) Write down the structure of salbutamol and adrenalin ? 3
- (b) Show how salbutamol act as agonistic drug and used for broncodilator ? 3
- (c) Write the synthesis of salbutamol. 4
4. (a) How aspirin is treated for pusing the inflammation. 3
- (b) Describe the inactivation of prostoglandin synthesis by aspirin. 4
- (c) Write down the synthetic step of aspirin. 3
5. (a) Define pharmacokinetics. 2
- (b) What is mean by ADME ? 2
- (c) How drug is absorbed into the living system ? Describe the different pathway with reference to specific drug. 6
6. Synthesise the following (attempt any two) :
- (i) Ibuprofen ;
- (ii) Chloroquine ;
- (iii) Ciprofloxacin. 5+5
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