

## IV B. Pharmacy I Semester Supplementary Examinations, Oct/Nov - 2017

## MEDICINAL CHEMISTRY-II

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions  
All Questions carry **Equal** Marks

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1. a) Write general method of synthesis of Penicillins from 6-APA. Write the structure of any four Penicillins. (8M)
- b) Write various types of classification of Antibiotics with example. Explain numbering and nomenclature of Penicillins according to CA and USP. (7M)
2. a) Explain advantages of Cephalosporins over Penicillins and write the structures of any two Cephalosporins. Compare (a) 6-APA with 7-ACA (b) Penam with Cepham. (8M)
- b) Classify Cephalosporins with suitable example. What happens when Cephalosporin 'C' subjected for acid hydrolysis? (7M)
3. a) Write biological source, amphoteric nature, epimerisation and toxicity of Tetracyclins. (8M)
- b) Write a note on mode of action and SAR of Tetracyclins. (7M)
4. a) Write the structure of dihydrostreptomycin and mention its importance. Write the therapeutic uses, mechanism of action and toxicity of Rifampicin. (8M)
- b) Write the structure, mechanism of action of Streptomycin and Chloramphenicol. (7M)
5. a) Write biological source, structure of Vitamin A1 and explain about its physiological role and uses. (8M)
- b) Explain the preparation of ergocalciferol from ergosterol. Write a short note of its deficiency syndrome. (7M)
6. a) Discuss physiological role, uses of Vitamin K's and write the structures of K<sub>1</sub>, K<sub>2</sub>, K<sub>3</sub>, K<sub>4</sub>. (8M)
- b) List the fat soluble Vitamins, write the source, structures and physiological role of Tocopherols. (7M)
7. a) Write the structures and uses of Ascorbic acid, B<sub>6</sub> and B<sub>12</sub>. Discuss the Oxidation of Nicotine and Ascorbic acid. (8M)
- b) Explain reduction reactions of Folic acid in biological system. Discuss the degradation reactions of Vitamin B<sub>2</sub> and B<sub>1</sub>. (7M)
8. a) Write a brief account on PPAR inhibitors and glucosidase inhibitors. (8M)
- b) Write a brief account on Insulin Preparations. (7M)