

Code No: B4103

R10**SET - 1****IV B. Pharmacy I Semester Advanced Supplementary Examinations, Feb/March - 2018****MEDICINAL CHEMISRY-II**

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions
All Questions carry **Equal** Marks
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1. a) Classify antibiotics and give one example to each class and write a brief note on  $\beta$ -lactamase inhibitors. (8M)  
b) Write a brief note on  $\beta$ -lactamase inhibitors. Explain hydrolytic reactions of Penicillins with cold, hot, dilute mineral acids, Penicillinase enzyme and with alkali. (7M)
2. a) Explain about SAR and advantages of Cephalosporins. Compare (a) 6-APA with 7-ACA (b) Penam with Cepharm. (8M)  
b) Write the source and structure of some important Cephalosporins. Explain the hydrolysis of Cephalosporins. (7M)
3. a) Write a note on mechanism of action and spectrum of activity of Tetracyclins. Write the SAR of Tetracyclins. (8M)  
b) Write notes on biological source, structure of Chlortetracycline and Oxytetracycline. (7M)
4. a) Write the Structure, therapeutic uses, mechanism of action and toxicity of Chloramphenicol and Rifampicin. (8M)  
b) What are aminoglycoside antibiotics and give the structure, mechanism of action and acid hydrolysis of Streptomycin. (7M)
5. a) Write the method of preparation of ergocalciferol. Write a short note of its deficiency syndrome. (8M)  
b) Write biological source, structure of Vitamin A1 and explain about its physiological role and uses. (7M)
6. a) Write the biological source, structures of  $\alpha$ ,  $\beta$ ,  $\gamma$ -Tocopherols. Write about their biological uses. (8M)  
b) Discuss physiological role, uses of Vitamin K's and write any two structures of them. (7M)
7. a) Write the structures, uses and physiological actions of Vitamin B<sub>1</sub>. Explain the following reactions: (a) Oxidation of Thiamine to Thiochrome (b) Degradation of Riboflavin to Lumichrome. (8M)  
b) Write the biological source, structure of Vitamin B<sub>2</sub> and Ascorbic acid. Write the complications of deficiency of these Vitamins. (7M)
8. a) Write the biological functions of Methimazole, Propoxythiuracil. Write a brief account on Insulin Preparations. (8M)  
b) Write a brief account on PPAR inhibitors and glucosidase inhibitors. (7M)