

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 Cepham. (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)