

Ref. No. : Ex//Pharm/T/412//2017(S)

B.Pharm. 4th Yr 1st Sem. Supple Exam.-2017

Subject: MED CHEMISTRY-III Time : 3 Hours

Full Marks : 100

Group A

Answer **AT LEAST ONE** questions from this group. Answers to all parts of a question should be at the same place of the answer-script and in the same order as they appear in the question paper.

1. Give synthesis and mode of action of
- (a) A quinoline based antimalarial
 - (b) A sulfonamide based antimalarial
 - (c) A biguanide antimalarial

[10+5+5]

2. Give synthesis and mode of action of :

- (i) Sulfamethazine
- (ii) Ethionamide
- (iii) INH
- (iv) PAS

[4 x 5]

3. Give a classification of antiameobic drugs. Mention synthesis of three antiameobic drugs each belonging to a different category.

[5 + 15]

B.PHARMACY 4TH YEAR 1ST SEM SUPPLEMENTARY EXAM-2017

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GROUP - B

Q.4 a) Define and classify antibiotics with examples.

b) Discuss the mode of action and SAR of Penicillin.

c) Outline the synthesis of following.

i) Ampicillin ii) Amoxycillin and iii) Benzylpenicillin.

2+9+9=20

Q.5 a) Discuss the structural feature of Tetracyclines.

b) Draw a scheme for the degradation of Cephalosporins.

c) Outline the structure of Cephalosporin taking one of each of 1st, 2nd, 3rd and 4th generation.

6+6+8=20

Q.6 a) What is the natural source of Chloramphenicol?

b) Outline the synthesis, mode of action and SAR of Chloramphenicol.

c) Write a note on Macrolides.

1+3+1+5+10=20

7(S)

B PHARMACY 4TH YEAR 1ST SEM SUPPLEMENTARY EXAM – 2017

MEDICINAL CHEMISTRY –III

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100

Answer five questions taking at least ONE from this Group

GROUP – C

Q7. What are the aims of metabolism in the body? What are the sites of metabolism and how xenobiotics are metabolized there? Write few lines about role of CYP450. Write in details about Phase -I and Phase –II reactions giving suitable examples. 2+5+13= 20

Q8. Define prodrugs. What is bioprecursor? Explain Trojan horse approach with example. Discuss role of prodrugs in medicinal chemistry. Write in details giving example of azo compounds, carbonyl compounds and esters as prodrugs and their mode of actions. 2+4+5+9=20

=20

Q9. A) Classify oral hypoglycemic drugs on the basis of insulin dependent, insulin independent and drugs which increase insulin secretions. Give example from each class. Write mode of action of miglitinide. 6+4=10

20

B) Classify virus. Give examples of diseases produced by each class of virus. Write structure of following drugs and mention their mode of actions- Acyclovir, Nevirapine and foscarnet. 1+1+2+6=10

20