

Answer any *five* questions taking atleast *two* from each group.

**Group A**

**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. Write explanatory notes on nomenclature of heterocyclic systems. [20]
2. Give synthesis and some reactions of Quinoline and Isoquinoline. [12+8]
3. Write a note on aromatic and non-aromatic character of furan. [20]

Ref.No.: EX/PHARM/T/212/2017( S)

Subject: PHARMACEUTICAL CHEMISTRY -III ( ORGANIC II)

Time: 3 Hours Full Marks: 100

Group-B/

Q.4. Out line the synthesis of a) Phenothiazine b) Benzoxazole c)Benzothiazole d) Quinoxaline e) 2-amino pyridine  $4 \times 5 = 20$

Q.5 .a)Draw the structure of i) Quinazoline ii) 2,5 Diketopiperazine iii) Benz- imidazole iv) Thiazolidine v)Pteridine  $2 \times 5 = 10$

b)Which position of barbituric acid is important for derivatization? Mention three drugs out of this derivatization.  $1 + 4 = 5$

c)Outline the synthesis of a) Pyrimidine and b) Piperazine  $2.5 + 2.5 = 5$

Q.6. a) what are 6-APA and 7-ACA ? Explain their structural differences.Mention three oral and three injectable drugs from both the categories.  $4 + 4 + 6$

b) Explain the mode of action of beta-lactam antibiotics in detail 6

Q.7. What are anti coagulants? What is the mode of action of anti coagulants? Classify them.  $2 + 3 + 3$

What are the uses of anticoagulants? Outline the synthesis of a) Warfarin and b)Dicoumarol  $4 + 4 + 4$

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