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SB-3588

M. Sc. (Part - II) Examination

March / April - 2011

Pharmaceutical Chemistry : Paper - II

(Synthetic Drugs)

Time : **3** Hours] [Total Marks : **70**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ M. SC. (PART - 2)

Name of the Subject :

☛ PHARMACEUTICAL CHEMISTRY - 2

☛ Subject Code No. : 3 5 8 8 ☛ Section No. (1, 2,.....) : 1&2

Seat No. :

Student's Signature

(2) Answers to the two sections should be written in separate answer books.

(3) Figures to the right indicate full marks of the questions.

SECTION - I

1 (a) Define the term gram +ve and gram -ve bacteria. Give the structures and pharmacological applications of erythromycin and gentamycin. **12**

(b) What are nonlactam antibiotics ? Discuss the structural variations of Penicillins.

(c) Define the terms bacteriostatic and bacteriocidle antibiotics. Give the structures and clinical applications of non classified antibiotics.

OR

1 (a) What are Macrolides ? Give the illustration of the β-lactum antibiotics and give the structural variations of Ciphalosporins. **12**

(b) Discuss the structure activity relationship of penicillins.

(c) What are broad spectrum antibiotics ? Give the synthesis and uses of chloramphenicol.

2 (a) Give the classification of analgesics and discuss SAR of analgesics. 12

(b) What are anxiolytic agents ? Discuss the mode of hypnotics.

(c) Give the synthesis and uses of :

(i) Dibucaine

(ii) Amytal.

OR

2 (a) What are general anaesthetics ? Discuss the important non volatile general anaesthetics. 12

(b) What do you mean by antidepressant and neuroleptic drugs ? Give the synthesis of amobarbital and nikethamide.

(c) Give the mode of action of local anaesthetic and synthesis of xylocaine.

3 (a) Explain the antihistaminic drug action on the basis of agonist and antagonists competition. 11

(b) Give classification of sulphonamides according to their therapeutic uses. Give the names and structural formula of clinically important sulphonamides.

(c) Give the synthesis and uses of :

(i) antazoline

(ii) sulfathiazole

OR

3 (a) Discuss the mode of action among sulphonamides. 11

(b) What are antiallergenic drugs ? Give classification and structural variations among them.

(c) Give classification of antitubercle agents and give the synthesis of

(i) INH

(ii) Sulfathiazole

SECTION - II

4 (a) Explain solid tumors and malignant tumors. What are the main characteristics of malignant tumors ? **12**

(b) Name the pathogens causing human malaria. Discuss the structural variation among 4- and 8- amino derivatives of quinoline antimalarials.

(c) Explain the cancer chemotherapy and give the synthesis of

(i) malphalen

(ii) 6-mercaptopyrene

OR

4 (a) What are antineoplastic agents ? Discuss alkylating agents and antimetabolites used as antineoplastic agents. **12**

(b) Give an account of mode of action of antimalarials.

(c) Give the synthesis and uses of :

(i) deraprim

(ii) primaquine.

5 (a) Discuss the classification and structural variation of diuretic drugs. **12**

(b) Give general account of angina. Discuss about the drugs used in angina pictories.

(c) Give the synthesis and uses of :

(i) glibenclamide

(ii) verapamil

OR

5 (a) What are anti arrhythmic agents ? Classify them on the basis of their different pharmacological action and discuss the structural variation. **12**

(b) What are hypoglycaemic agents ? Discuss structural variation among bigunidine derivatives.

(c) Give the synthesis and uses of :

(i) acetazolamide

(ii) tolbutamide

6 (a) How metals and its complexes are useful as therapeutic agents ? Describe them as anticancer agents. **11**

(b) Give short account on radio pharmaceuticals.

(c) Enlists the drug delivery systems and discuss any two of them.

OR

6 (a) How copper and their complexes are used as therapeutic agents in antimalerial drugs? **11**

(b) Names the types of radio materials. How radio isotopes are handle and storage ?

(c) Define the term drug delivery system and explain nasal and nanoparticles drug delivery system.
