



RF-5377-78

M. Sc. (Part-II) Examination

April / May – 2010

Pharmaceutical Chemistry : Paper - II
(Synthetic Drugs)

Time : 3 Hours]

[Total Marks : 70

RF-5377

Instructions :

(1)

नीचे दशांशके निशानीवाणी विगतो उत्तरवही पर अवश्य लખवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="M. Sc. (Part-2)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Pharmaceutical Chemistry - 2"/>	<input type="text"/>
Subject Code No. : <input type="text" value="5"/> <input type="text" value="3"/> <input type="text" value="7"/> <input type="text" value="7"/>	Section No. (1, 2,.....) : <input type="text" value="1"/>
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.

1 (a) What are broad spectrum antibiotics? Give the structures and pharmacological applications of streptomycin and lincomycin. **12**

(b) Discuss the structural variations of Penicillins.

(c) Define the terms in vivo and in vitro. Give the structures and clinical applications of non classified antibiotics.

OR

1 (a) What are β -lactam antibiotics? Give the structure activity relationship of Penicillins. **12**

(b) What are the broadspectrum antibiotics? Discuss structural variations of Tetracyclines.

(c) Give the clinical applications of aminoglycosides and synthesis of penicillin-V.

- 2 (a) Discuss the sedatives and hypnotics in details. 12
(b) Explain the term antipsychotic drug and give the synthesis of chlorazepam and pentothal.
(c) Discuss the mode of action of local anaesthetics and give the synthesis of nupercaine and cocaine.

OR

- 2 (a) What are general anaesthetics? Discuss the important non volatile general anaesthetics. 12
(b) Give classification of analgesic drug and synthesis of novalgin and meperidine.
(c) What is CNS depressant? Enlist the CNS depressant with their chemical structures.

- 3 (a) Explain the term allergy and give the synthesis of benadryl and chlorpheniramine. 11
(b) Name the microorganism that are responsible for tuberculosis and leprosy; Give classification of tuberculosis agents according to their therapeutic uses with chemical structures.
(c) Enlist the sulfonamides which are clinically important and give the synthesis of sulfamethoxine and sulfalene.

OR

- 3 (a) Name the important clinically applicable antituberculosis and antileprotic agents and give two synthesis of them. 11
(b) What are antihistamine drugs? Give classification and structural variations among them.
(c) Discuss the SAR of sulphonamides and give the synthesis of sulfathiazole and sulfasuxidine.

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Fillup strictly the details of signs on your answer book.

Seat No. :

Name of the Examination :
M. Sc. (Part-2)

Name of the Subject :
Pharmaceutical Chemistry - 2

Subject Code No. : 5 3 7 8 Section No. (1, 2,.....) : 2

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.

4 (a) Write brief account on antineoplastic agents with **12** chemical structures.

(b) Discuss the structural variation among 4- and 8-amino derivatives of quinoline antimalarials.

(c) Give the synthesis of

(i) Daraprim

(ii) Melphalen

(iii) Pyrimethamine

OR

4 (a) What is cancer chemotherapy? Discuss alkylating agents and antimetabolites used as antineoplastic agents.

(b) Discuss in brief mode of action of antimalarials.

(c) Give the synthesis of

(i) 6-mercaptopyrine

(ii) chloroquine

(iii) meclorethamine

- 5 (a) Give the structural variation of diuretic drugs with classification. 12
- (b) Define the term antianginal drugs; give the different names antianginal drugs with their structures and applications.
- (c) Enlist the drugs which are affecting on sugar metabolism and give the structures.

OR

- 5 (a) What are anti arrhythmic agents? Classify them on the basis of their different pharmacological action and discuss structural variation. 12
- (b) What are hypoglycaemic agents? Discuss structural variation among bigunidine derivatives.
- (c) Give the synthesis of:
- (i) Ethacynic acid
 - (ii) Methyldopa
 - (iii) Tolbutamide

- 6 (a) How platinum complexes are applicable as therapeutic agents? Explain in detail.
- (b) Discuss the productions of radio isotopes and measurement of radio activity.
- (c) Define the term drug delivery system and explain transdermal and mucosal drug delivery system.

OR

- 6 (a) Discuss in details the handling and storage of radioactive materials. 11
- (b) Describe the usefulness of gold complexes as antimalarial drugs.
- (c) Give an account on liposomes and nanoparticles drug delivery system.