

Total No. of Questions: 3

Total No. of Printed Pages: 2

Enrollment No.....



Faculty of Pharmacy
End Sem Examination Dec-2023
PY3CO18 Medicinal Chemistry -II

Programme: B. Pharm.

Branch/Specialisation: Pharmacy

Duration: 3 Hrs.**Maximum Marks: 75**

Note: All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1
- What is the synthesis of Promethazine hydrochloride? **2**
 - Give the structure and therapeutic uses of Mercaptopurine. **2**
 - Write the structure of any two calcium channel blocking agents. **2**
 - Outline the synthesis of Nitroglycerine. **2**
 - Give the structure and therapeutic uses of Quinidine sulphate. **2**
 - What are Antihyperlipidemic agents? **2**
 - What are steroids? **2**
 - Differentiate between Cardenolides and Bufadienolides with structure. **2**
 - Give the structure of Benzocaine. **2**
 - Give two examples of glucosidase inhibitors as antidiabetic agents. **2**
- Q.2
- Attempt any two:
- What are antineoplastic agents? Classify them with example. **10**
Discuss the mechanism of action of alkylating agents.
 - Define antihypertensive agents. Explain the SAR of Angiotensin Receptor Blockers. Write the synthesis of Methyldopate hydrochloride. **10**
 - (a) What are antihistaminic agents? Explain the SAR of H₁ antagonists. Give the synthesis of Diphenhydramine HCl. **5**
(b) What are antianginal agents? Explain the synthesis of Isosorbide dinitrate. **5**

Q.3 Attempt any seven: Two questions from each section is compulsory.

Section - A


- Explain the SAR and mechanism of action of Digoxin. **5**
- Give the synthesis and SAR of Disopyramide phosphate. **5**
- What are Anticoagulants? Write the synthesis of Warfarin. **5**

Section - B

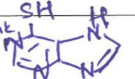
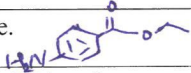
- Explain SAR of Corticosteroids. **5**
- Explain in detail nomenclature and stereochemistry of steroids. **5**
- Write a note on thyroid and antithyroid drugs. **5**

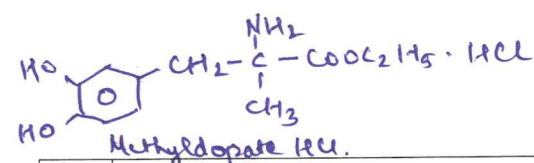
Section - C

- What are local anesthetics? Explain in detail SAR of local anesthetics with suitable examples. **5**
- Classify antidiabetic agents with examples. Give the mechanism of action and synthesis of Tolbutamide. **5**
- Write a note on insulin and its derivatives. **5**

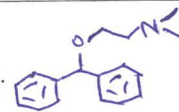
Scheme of Marking		
	Faculty of Pharmacy	
	End Sem Examination Dec-2023	
	PY3CO18 - Medicinal Chemistry-II	
	Programme: B. Pharm.	Branch/Specialisation: Pharmacy
Duration: 3 Hrs.		Maximum Marks: 75

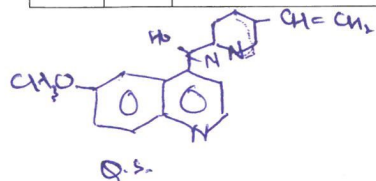
Note: The Paper Setter should provide the answer wise splitting of the marks in the scheme below.

Q.1	i)	What is the synthesis of Promethazine hydrochloride?	2
	ii)	Give the structure and <i>Anti-neoplastic</i> therapeutic uses of Mercaptopurine. 	1 marks 1 marks
	iii)	Write the structure of any two calcium channel blocking agents.	2
	iv)	Outline the synthesis of Nitroglycerine.	2
	v)	Give the structure and therapeutic uses of Quinidine sulphate. <i>antiarrhythmic</i>	2
	vi)	What are Antihyperlipidemic agents?	2
	vii)	What are steroids?	2
	viii)	Differentiate between Cardenolides and Bufadienolides with structure. <i>(5) 6 membered</i>	2
	ix)	Give the structure of Benzocaine. 	2
	x)	What are Gastric Proton Pump inhibitors?	2
Q.2	Attempt any two:		
	i.	What are antineoplastic agents? 2 marks	10
		Classify them with example. 3 marks	
		Discuss the mechanism of action of alkylating agents. 5 marks	



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	ii.	Define antihypertensive agents? 2 marks Explain the SAR of Angiotensin Receptor Blockers. 4 marks Write the synthesis of Methyl dopate hydrochloride. 4 marks	10
	iii.	(a) What are antihistaminic agents? 1 mark Explain the SAR of H1 antagonists.  2 marks Give the synthesis of Diphenhydramine HCl. 2 marks	5
		(b) What are antianginal agents? 2 marks Explain the synthesis of Isosorbide dinitrate. 3 marks	5
Q.3	Attempt any seven: Two questions from each section is compulsory.		
	Section - A		
	i.	Explain the SAR and mechanism of action of Digoxin. (2.5 marks each)	5
	ii.	Give the synthesis and SAR of Disopyramide phosphate. (2.5 marks each)	5
	iii.	What are Anticoagulants? Write the synthesis of Warfarin. (2.5 marks each)	5
	Section - B		
	iv.	Explain SAR of Corticosteroids.	5
	v.	Explain in detail nomenclature and stereochemistry of steroids.	5
	vi.	Write a note on thyroid and antithyroid drugs. (2.5 marks each)	5
	Section - C		
	vii.	What are local anesthetics? Explain in detail SAR of local anesthetics with suitable examples. (2.5 marks each)	5
	viii.	Classify antidiabetic agents with examples. 2 marks	5



		Give the mechanism of action and synthesis of Tolbutamide. 3 marks	
	ix.	Write a note on Insulin and its derivatives.	5

