Total No. of Questions:3 *Total No. of Printed Pages:2*

Enrollment No.....

Faculty of Pharmacy

End Sem (Even) Examination May-2022

PY3CO14 Medicinal Chemistry -I

Programme: B. Pharma Branch/Specialisation: Pharmacy

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

Note: All questions are compulsory. Internal choices, if any, are indicated.

Q.1	i.	Define Geometrical Isomerism.	**2**
	ii.	Define Bio-isosterism.	**2**
	iii.	Name types of Adrenergic receptor.	**2**
	iv.	Give the structure and uses of Methyl Dopa.	**2**
	v.	Name the types of Nicotinic receptors with their locations.	**2**
	vi.	Name any two types of neurotransmitters.	**2**
	vii.	Define Sedatives.	**2**
	viii.	Enlist the physiochemical properties of Diazepam.	**2**
	ix.	Draw the structure of Halothane and also write uses.	**2**
	x.	Draw the structure of any two anti-Inflammatory agents.	**2**
Q.2		Attempt any two:	
	i.	Explain the phase I & II metabolic reactions in detail	**10**
	ii.	Give the structure, synthesis & MOA of the following drugs - (a) Salbutamol (b) Tolazoline	**10**
	iii.	(a) Write an exhaustive note on factors affecting drug metabolism	**5**
		(b) Explain the SAR of beta blockers with synthesis of any one beta bloker.	**5**
Q.3		Attempt any seven: Two questions from each section is compulsory.	
		Section - A	
	i.	Explain the SAR of Parasympathomimetic Agent.	**5**
	ii.	Give the SAR and synthesis of Carbachol.	**5**
	iii.	Give the classification and SAR of Anticholinergics.	**5**

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Section - B

	iv.	Classify Barbiturates.	**5**
	v.	Give the SAR & MOA with their structure of Benzodiazepines.	**5**
	vi.	Give the physiochemical properties, SAR & synthesis of Barbital.	**5**

Section – C

	vii.	Give the synthesis and uses of given drugs - (a) Ibuprofen (b) Ketamine Hydrochloride	**5**
	viii.	Give the detail SAR of Morphine analogues.	**5**
	ix.	Write a short note on general Anaesthetics.	**5**

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Marking Scheme
PY3CO14 Medicinal Chemistry -I

Q.1	i.	Definition of Geometrical Isomerism.		**2**
	ii.	Definition of Bio-isosterism.		**2**
	iii.	Two types of Adrenergic receptor.	(1 mark * 2)	**2**
	iv.	Structure of Methyl Dopa	1 mark	**2**
		Any one use	1 mark	
	v.	Two types of Nicotinic receptors with their locations.	(1 mark * 2)	**2**
	vi.	Two types of neurotransmitters.	(1 mark * 2)	**2**
	vii.	Definition of Sedatives.		**2**
	viii.	Two physiochemical properties of Diazepam.	(1 mark * 2)	**2**
	ix.	Structure of Halothane	1 mark	**2**
		Any one use	1 mark	
	x.	Two structures of any two anti-Inflammatory agents.	(1 mark * 2)	**2**

Q.2		Attempt any two:		
	i.	Phase I reactions	5 marks	**10**
		Phase II reactions	5 marks	
	ii.	Structure of both drugs	2 marks	**10**
		Synthesis of both drugs	4 marks	
		MOA of both drugs	4 marks	
	iii.	(a) Any 5 factors affecting drug metabolism		**5**
		1 mark for each	(1 mark * 5)	
		(b) SAR of beta blockers	2.5 marks	**5**
		Synthesis	2.5 marks	

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

Section - A

	i.	SAR of Parasympathomimetic Agent.		**5**
		As per explanation		
	ii.	SAR	2.5 marks	**5**
		Synthesis of Carbachol.	2.5 marks	
	iii.	Classification	2.5 marks	**5**
		SAR of Anticholinergics	2.5 marks	

Section - B

	iv.	Classification of Barbiturates		**5**
		As per explanation		
	v.	SAR of Benzodiazepines	3 marks	**5**
		Mode of action	2 marks	
	vi.	Physiochemical properties of Barbital	1 mark	**5**
		SAR of Barbital	2 marks	
		Synthesis of Barbital	2 marks	

Section – C

	vii.	Synthesis	2.5 marks	**5**
		Uses of both drugs	2.5 marks	
	viii.	SAR of Morphine		**5**
		As per explanation		
	ix.	General Anaesthetics		**5**
		As per explanation		

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