Seat No.: _____ Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– VI(NEW) – EXAMINATION – SUMMER 2019

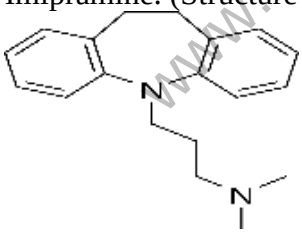
Subject Code: 2163601 **Date: 18/05/2019**

Subject Name: Medicinal Chemistry-I

Time: 10:30 AM TO 01:00 PM **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

			MARKS
Q.1	**(a)**	Write the mode of action (MOA) of Mono Amino Oxidase (MAO) inhibitor Antidepressant. Give one example with its structure.	**03**
	(b)	Write the MOA & Structural Activity Relationship (SAR) of Barbiturate class of Anticonvulsants. Illustrate with examples with structures wherever required.	**04**
	(c)	Write the SAR of sympathomimetic drugs which contain a β-phenyl ethyl amine as parent structure. Illustrate with suitable examples.	**07**
Q.2	**(a)**	Write the biosynthesis of Adrenaline & Noradrenaline.	**03**
	(b)	Explain "Parkinsonism". Write any two probable cause of this disease. Write the classification of Antiparkinsonism agents with suitable examples.	**04**
	(c)	Explain Hyperlipidaemia. Write the classification of Antihyperlipidaemic agents with suitable examples. Write the MOA, metabolism & synthesis of any one Fibric acid derivative antihyperlipidaemic agent.	**07**
		OR	
	(c)	What are the classification of Adrenergic drugs based on their structure.. Write the synthesis of any one drug in each class.	**07**
Q.3	**(a)**	Write a note on with examples : (1). Emetics, (2). Antiemetics, (3). Cardiovascular drugs.	**03**
	(b)	Describe the following drugs with one synthesis: (1). Inhalation anaesthetics, (2). Intravenous anaesthetics	**04**
	(c)	Write the MOA of Tricyclic antidepressant. Write the synthesis of Imipramine. (Structure given). 	**07**
		OR	
Q.3	**(a)**	Define Osteoporosis. Write a note on risk factors in female gender. Give two examples of Ant Osteoporotic drugs.	**03**
	(b)	Describe basal anaesthetic, its advantages. Give synthesis of any one drug.	**04**
	(c)	Write a note on Renin-Angiotensin Pathway. Write the synthesis of (1). Hydralazine HCl & (2). Methyl Dopa.	**07**
Q.4	**(a)**	Write a note on with suitable examples: (1). Sedatives & Hypnotics, (2). Cardiac Glycosides.	**03**
	(b)	Write the MOA & metabolism of any one Antiparkinsonism agent.	**04**
	(c)	Describe the regulation of Catecholamines with appropriate structures.	**07**

OR

Q.4	**(a)**	Write one example & MOA of antiepileptic drugs: (1) GABA analogue, (2). Benzodiazepine derivative.	**03**
	(b)	Write the SAR of Phenothiazine derivative Tranquilizer.	**04**
	(c)	Write the synthesis of Acetylcholine. Write the SAR of Cholinergic drugs.	**07**
Q.5	**(a)**	What is an antiarrhythmic drug? Write its classifications with one example in each classification.	**03**
	(b)	Write the MOA of antipsychotic drugs: (1). Meprobamate, (2). Chlorpramazine	**04**
	(c)	Write the MOA & SAR of benzodiazepine class of sedatives & hypnotics.	**07**

OR

Q.5	**(a)**	Describe with example: (1) Selective Serotonin receptor inhibitor antidepressant, (2). Selective Norepinephrine receptor inhibitor antidepressant.	**03**
	(b)	Write the MOA & metabolism of any one HMG-CoA reductase inhibitor Anticholesterol drug.	**04**
	(c)	Write the SAR & MOA of barbiturate class of sedatives & hypnotics	**07**

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