

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER-VI (NEW SYLLABUS) EXAMINATION- SUMMER 2018

Subject Code:2163601

Date: 05/05/2018

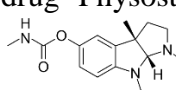
Subject Name: Medicinal Chemistry-I

Time: 10:30 to 01:00

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) What Basal Anesthetics & What are its merits? Write one example with its synthesis.	03
	(b) Write the Structural Activity Relationship (SAR) of Dibenzazepine antidepressants.	04
	(c) Write both the pathways of metabolism of Catecholamines with appropriate structures.	07
Q.2	(a) What are Anticonvulsants? Give one example of Hydantoin derivative anticonvulsant with structure. Write its Mode of Action (MOA) & SAR.	03
	(b) Write the SAR & MOA of Phenothiazine class of Antipsychotic drug with proper examples.	04
	(c) Write the synthesis of any two drugs: (i).Hydralazine Hydrochloride, (ii).Atenolol, (iii).Isoxsuprine Hydrochloride, (iv).Sodium Valproate.	07
	OR	
	(c) Write the synthesis of any two drugs: (i). Diazepam, (ii). Imipramine, (iii). Clofibrate, (iv). Glutethimide	07
Q.3	(a) Write the biosynthesis of Catecholamines	03
	(b) What are General anesthetics & what are its classifications? Give suitable examples. Write the synthesis of any two drugs.	04
	(c) Write the SAR of Adrenergic drugs which contain β -phenyl ethylamine as parent structure. Write structures wherever required.	07
	OR	
Q.3	(a) Write the biosynthesis & metabolism of Acetylcholine	03
	(b) Write the MOA, synthesis & metabolism of any one barbiturate class of sedative / hypnotic.	04
	(c) Write the synthesis of indirectly acting reversible cholinergic drug- Physostigmine (structure given)	07
		
Q.4	(a) Write a note on Osteoporosis. Mention its causes and give two examples of Anti osteoporotic drugs.	03
	(b) Describe Parkinsonism and write the classifications of antiparkinsonism agents with examples. Write the metabolism of antiparkinsonism agent Levodopa.	04
	(c) What are the classifications of Adrenergic drugs based on chemical structures. Give one example with its synthesis in each class.	07

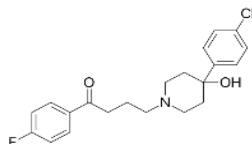
OR

- Q.4** (a) Describe (i). Emetics, (ii). Sedatives & Hypnotics, (iii). Hyperlipidemia. **03**
 (b) Write the SAR of Cholinergic drugs. **04**
 (c) Write the MOA of Mono amino oxidase inhibitor antidepressant & Tricyclic antidepressant. Give one example in each class. **07**
 Write the synthesis of Phenelzine.

- Q.5** (a) Write one example of antipsychotic alkaloid drug. Write its MOA. **03**
 (b) Write a note on Pyridine derivative antihyperlipidemic agent. Mention one example with its MOA & synthesis. **04**
 (c) Write the MOA of Antisymphathetic drug Propranolol HCl. Write its synthesis & write the SAR of β -adrenergic blockers. **07**

OR

- Q.5** (a) Write the MOA of benzodiazepine class & GABA analogue antiepileptic drugs. Give one example in each class. **03**
 (b) What are antihyperlipidemic drugs? What are its classifications? Write a note on HMG-CoA reductase inhibitor with suitable examples. **04**
 (c) Write the MOA, SAR & synthesis of butyrophenone antipsychotic drug-Haloperidol (structure given) **07**



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