M.Sc.(Chemistry) (CBCS Pattern) Semester - III
PSCHT12.5 - Elective Paper - Medicinal Chemistry

P. Pages : 2

Time : Three Hours

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GUG/S/23/11346

Max. Marks : 80

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Notes : 1. All questions are compulsory and carry equal marks.

1. a) Discuss on following **8**
   i) Drug design   ii) Clinical studies.

   b) Give synthesis and uses of **8**
   i) Methyldopa   ii) Atenolol.

OR

   c) Write short note on drug metabolism. **4**

   d) Give synthesis and mode of action of amyl nitrate. **4**

   e) Write short note on computer aided drugs. **4**

   f) Give synthesis of verapamil. **4**

2. a) What are antineoplastic agents? Give their classification. Discuss following antineoplastic **8**
   agent briefly.
   i) Hormone   ii) Natural product.

   b) Discuss synthesis of **8**
   i) Lomustine   ii) Ciglitazone.

OR

   c) Discuss role of alkylating agent in a cancer treatment. **4**

   d) Give synthesis and uses of thiazolidinediones. **4**

   e) Discuss the role of insulin in human body. **4**

   f) Give synthesis of melphalan. **4**

3. a) Give synthesis and mode of action of **8**
   i) Dapsone   ii) Griseofulvin

   b) What are diuretics? Give the synthesis of **8**
   i) Bumetanide   ii) Quinethazone

OR

   c) Give synthesis and uses of aspirin. **4**

	d)	Discuss use and mode of action of sulfonamides.	**4**
	e)	Give synthesis and uses of phenylbutazone.	**4**
	f)	Write method of preparation of frusemide.	**4**

4. a) Write briefly on. **8**
     i) Heparin and its action   ii) mechanism of blood coagulation.

    b) Give synthesis of **8**
     i) Benzodiazepine   ii) Hydantoin

<div align="center">OR</div>

	c)	Give synthesis of Indanedione's.	**4**
	d)	Write synthesis of phenobarbital.	**4**
	e)	Give synthesis and uses of coumarins.	**4**
	f)	Explain CNS stimulant with suitable example.	**4**

5.
	a)	Write brief about cardiovascular drugs.	**2**
	b)	Give comments on prodrugs.	**2**
	c)	Give any two drugs used as a anticancer drug with structure.	**2**
	d)	Write structure and uses of lomustine.	**2**
	e)	Give synthesis and uses of Analgin.	**2**
	f)	Write structure and uses of Norfloxacin.	**2**
	g)	Give the structure of vitamins K_2.	**2**
	h)	Write structure and uses of Lorazepam.	**2**

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