

Total No. of Questions : 6]

SEAT No. :

P2812

[Total No. of Pages : 3

[5025]-42

M.Sc. (Semester - IV)

DRUG CHEMISTRY

CH-462 : Chemotherapy  
(2008 Pattern)

*Time : 3 Hours]*

*[Max. Marks : 80*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate answer books.*
- 3) *Figures to the right indicate full marks.*

**SECTION - I**

**Q1)** Answer any three of the following :

**[15]**

- a) Discuss in brief the development of cephalosporins. Give an example of each from I<sup>st</sup>, II<sup>nd</sup> and III<sup>rd</sup> generations with their benefits.
- b) What are antibiotics? How are they classified. Discuss the selective toxicity associated with them.
- c) Give a brief account of macrolide antibiotics. Explain their mechanism of action.
- d) Give in brief, the discovery of carbapenems. What makes them super antibiotics. Discuss their mode of action.

**Q2)** Answer any two of the following :

**[16]**

- a) What are common fungal diseases. Explain how antifungal agents amphotericin-B, Fluconazole and griseofulvin affect the fungal biochemical processes.

**P.T.O.**

- b) Explain in brief the role of the following in managing CNS disorders.
  - i) Monoamine oxidase inhibitors
  - ii) Barbiturates
  - iii) Serotonin reuptake inhibitors
  - iv) Benzodiazepines
- c) What are different strategies to combat cancer? Explain in brief the role of alkylating agents and antimetabolites in cancer treatment.

**Q3)** Discuss in brief any three of the following : **[9]**

- a) Leprosy
- b) Malaria
- c) Epilepsy
- d) Sedatives

### **SECTION - II**

**Q4)** Answer any three of the following : **[18]**

- a) How does the endocrine system maintains homeostasis? Explain the role of thyrotropin, calcitonin, parathyroid hormone and aldosterone.
- b) Discuss in brief any two of the following :
  - i) Myocardial Infarction
  - ii) Stroke
  - iii) Angina
- c) Discuss how the following diseases are managed by current drugs. (any two) :
  - i) Inflammation
  - ii) Tuberculosis
  - iii) Emesis
- d) What are the common GIT disorders. Explain ulcers and the approaches to treat ulcers.

**Q5)** Answer any two of the following : **[10]**

- a) Describe in brief the functioning of pancreas. What happens in diabetes? Explain the use of following in treatment of diabetes.
  - i) Glitazones
  - ii) Biguanides
- b) Describe enzyme inhibitors and their role in disease management. Discuss with examples their role as anticancer and antibacterial agents.
- c) Discuss viral life cycle and explain the use of rimantadine and ribavirin as antiviral agents.

**Q6)** Give the mode of action and uses of the following drugs. (any four) : **[12]**

- a) Methotrexate
- b) Mefenamic acid
- c) Propranolol
- d) Meperitidine
- e) Flucytosine
- f) Doxorubicin

