

Total No. of Questions : 6]

SEAT No. :

P2076

[Total No. of Pages : 3

[4925] - 402

M.Sc. (Semester - IV)

DRUG CHEMISTRY

CHD-462 : Advanced Medicinal Chemistry

(2013 Pattern)

Time : 3 Hours]

[Max. Marks : 50

*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 : **[9]**

- a) Give a brief account of cell wall synthesis and discuss the mechanism of action of  $\beta$ -lactam antibiotics.
- b) Discuss in brief protein biosynthesis. Explain the steps where the antibiotics act with suitable example.
- c) Discuss in brief the development of quinolone antibiotics.
- d) Give a brief commentary on carbapenems.

**Q2)** Answer any two of the following : **[10]**

- a) Explain in brief the role of following classes of drugs in cancer treatment giving their mechanism of action.
  - i) Alkylating agents
  - ii) Plant products
  - iii) Antimetabolites
- b) Explain in brief the biological basis of depression. What are the different approaches to treat depression.

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- c) Discuss in brief common viral infections. Explain how viruses multiply in the host tissue. Discuss the role of acyclovir and ribavirin in antifungal therapy.

**Q3)** Discuss in brief any three of the following : **[6]**

- a) Drug Resistance
- b) Sedatives
- c) Antifungal agents
- d) Antimitotic agents

### **SECTION - II**

**Q4)** Answer any three of the following : **[9]**

- a) Explain in brief NIDDM and IDDM. Discuss the management of NIDDM.
- b) Explain the life cycle of plasmodium. Discuss the various strategies to control and treat malaria.
- c) Discuss in brief ulcers and their treatment.
- d) What are mycobacterial infections? How do mycobacteria differ from other bacteria. Discuss any two classes of antitubercular agents.

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

- a) How does the endocrine system maintain homeostasis? Explain the role of thyroxine, calcitonin, parathyroid hormone and aldosterone.
- b) Discuss the management of the following.
  - i) Myocardial Infarction
  - ii) Hypertension
  - iii) Congestive Heart failure.
- c) Discuss the following and their remedies.
  - i) Pain
  - ii) Emesis
  - iii) Constipation

**Q6)** Give the mode of action and uses of the following drugs (any three) : **[6]**

- a) Diclofenac
- b) Valporic acid
- c) Doxorubicin
- d) Indomethacin
- e) Cefaclor

