

**B PHARM**  
**(SEM-VI) THEORY EXAMINATION 2017-18**  
**PHARMACEUTICAL CHEMISTRY- VI**  
**(MEDICINAL CHEMISTRY-II)**

*Time: 3 Hours*

*Total Marks: 100*

**Note:** Attempt all Sections.

**SECTION A**

- 1. Attempt all questions in brief. 2 x 10 = 20**
- a. Differentiate between structure based and analogue based drug design.
  - b. Give two examples of cardiac glycosides used in the treatment of CHF.
  - c. What are anti-anginal drugs? Give examples of nitrovasodialator used in the treatment of angina.
  - d. Define alkylating agents with example of drugs. Alkylating agents are used in the treatment of which disease?
  - e. What are the main uses of H<sub>1</sub>- receptor blockers? Give any two examples of H<sub>1</sub>-receptor blocker drugs.
  - f. Write down the structure and uses of Mefenamic acid.
  - g. Define anticoagulant drugs. Write down two examples of anticoagulant drugs.
  - h. What is the rationale behind use of sulphamethoxazole and trimethoprim as drug combination in drug Co-trimoxazole?
  - i. Write down the structure and uses of Captopril.
  - j. Give an example of aldosterone antagonist used as diuretic agent.

**SECTION B**

- 2. Attempt any three of the following: 10 x 3 = 30**
- a. Write down the synthesis, mode of action and uses of Propranolol.
  - b. Write down the synthesis, mode of action and uses of Methotrexate.
  - c. Write down the synthesis, mode of action and uses of Paracetamol.
  - d. Write down the synthesis, mode of action and uses of Furosemide.
  - e. Write down the synthesis, mode of action and uses of Nalidixic acid.

**SECTION C**

- 3. Attempt any one part of the following: 10 x 1 = 10**
- (a) Define drug design. Discuss in detail various approaches to analogue based drug design.
  - (b) Define QSAR. Write a detailed note on various descriptors used in QSAR study.
- 4. Attempt any one part of the following: 10 x 1 = 10**
- (a) Classify antiarrhythmic drugs with examples. Write down the synthesis and mode of action of Procainamide.
  - (b) Classify antianginal drugs with suitable examples. Write down the mode of action and uses of Methyldopa.

- 5. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Write down the classification, structure activity relationship and uses of antihistaminic drugs.
- (b) What are antimetabolites? Classify antimetabolites with suitable examples used for treatment of cancer. Write down the synthesis and mode of action of 5- Fluorouracil.
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- 6. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Define antibacterial agents. Discuss the structure activity relationship, mode of action and uses of Sulphonamides.
- (b) Classify analgesic and antipyretic agents with examples. Write down the synthesis, mode of action and use of Ibuprofen.
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- 7. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Define diuretics. Name the different types of diuretics. Discuss site II and site III diuretics in detail clearly mentioning their classification, mode of action and uses.
- (b) Write a note on antihyperlipidemics agents with a detailed emphasis on HMG Co-A reductase inhibitors.