

BACHELOR OF PHARMACY (B. PHARM.) (CBCS-2019 COURSE)

B. Pharm. Sem-V :SUMMER- 2022

SUBJECT : MEDICINAL CHEMISTRY-II

Day : Saturday

Time : 10:00 AM-01:00 PM

Date : 13-08-2022

S-20675-2022

Max. Marks : 75

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION-I

Q.1 Answer all the questions: (2×10 = 20)

- a) Which of the following calcium channel blockers acts as anti-arrhythmic agents? (02)
 - i) Amlodipine and Verapamil
 - ii) Nifedipine and Diltiazem
 - iii) Verapamil and Diltiazem
 - iv) Nifedipine and Verapamil
- b) Which one of the following drugs decreases de novo cholesterol synthesis by inhibiting the enzyme 3-hydroxy-3methylglutaryl coenzyme A reductase? (02)
 - i) Fenofibrate
 - ii) Niacin
 - iii) Cholestyramine
 - iv) Lovastatin
- c) A part from its analgesic activity Aspirin is used as (02)
 - i) Antihypertensive
 - ii) Antianginal
 - iii) Antiplatelet
 - iv) Antihyperlipidemic
- d) Procainamide differs from procaine by (02)
 - i) Ester Group
 - ii) Amide group
 - iii) Chloro group
 - iv) Hydroxy group
- e) Which one of the following antihypertensive is having structure similar to chlorthiazide? (02)
 - i) Minoxidil
 - ii) Guanethidine
 - iii) Propranolol
 - iv) Diazoxide
- e) Draw Structure, IUPAC and therapeutic uses of Fluorouracil and Cisplatin. (02)
- f) Write about Antibiotics used as Antineoplastic agents. (02)
- g) Write about MOA of Mercurials with structures and IUPAC of any 2 drugs. (02)
- h) Sketch scheme of synthesis for Triprolidine HCl and Methotrexate. (02)
- i) Sketch scheme of synthesis for Promethazine HCl and Diphenhydramine HCl. (02)

P. T. O.

Q.2 Attempt any **TWO** of the following: ($2 \times 10 = 20$)

- a) Classify antiarrhythmic agents. Explain chemistry and structural activity relationship of any one class with representative structures.
- b) Classify diuretics with suitable example. Discuss chemistry and structural activity relationship of any two classes with representative structures.
- c) What are vasodilators? Classify antihypertensive agents and discuss about mode of action, chemistry and structural activity relationship of Angiotensin Converting Enzyme inhibitors.

SECTION-II

Q.3 Answer any **SEVEN** of the following: ($7 \times 5 = 35$)

- a) Explain nomenclature of steroids and draw structures with numbering of gonane and androstane.
- b) Give the structural activity relationship for glucocorticoids as anti-inflammatory agents.
- c) Write a note on oral contraceptives.
- d) Write a note on antithyroid drugs and give structure and uses of any two drugs.
- e) Discuss about the drugs used for erectile dysfunction.
- f) Give classification of Antidiabetic agents. Give mechanism of action and uses of Thiazolidinedione's.
- g) Write a note on Insulin and its preparation.
- h) Discuss the structural activity relationship of Anilide derivatives.
- i) Give structure, IUPAC names and outline synthesis of:
i) Tolbutamide ii) Benzocaine
- j) Chemistry of Amino Benzoic acid derivatives as local anesthetics.

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