

This question paper contains 3 printed pages]

AY—285—2018

FACULTY OF SCIENCE

M.Sc. (Second Year) (Fourth Semester) EXAMINATION

MARCH/APRIL, 2018

(CBCS Pattern)

ORGANIC CHEMISTRY

Paper-XXIII

(CH-544/2A)

(Medicinal Chemistry)

(Wednesday, 18-4-2018)

Time : 2.00 p.m. to 5.00 p.m.

Time—3 Hours

Maximum Marks—75

N.B. :— (i) Attempt all questions.

(ii) Figures to the right indicate full marks.

1. Solve any *three* of the following : 15
 - (a) Explain SAR of methyl salicylate and phenyl butazone.
 - (b) Discuss about water soluble and water insoluble contrast media.
 - (c) Write a note on 4-amino quinoline derivatives.
 - (d) Discuss the role of alkylating agents and antimetabolites in the treatment of cancer.
 - (e) What are sweetening agents ? Discuss the use of saccharin and *p*-phenyl urea as sweetening agents.

2. Attempt any *three* of the following : 15
 - (a) Explain the terms :
 - (i) Antihelmintic agents
 - (ii) Antispasmodics agents.
 - (b) Discuss about the recent development in the treatment of AIDS.
 - (c) Offer synthesis of Pamaquine and pyrimethamine.
 - (d) Explain synthesis and SAR of Guanidine as anti-arrhythmic drugs.
 - (e) Discuss the use of stovaine and its analogues as local anaesthetics.

P.T.O.

WT

(2)

AY—285—2018

3. (A) Discuss mechanism of action of antianginal drugs. Give synthesis of Verapamil and Clonidine. 8

Or

Offer synthesis of Allopurinol, Fluconazole, Mepiridine and Ibuprofen.

- (B) What are antimalarials ? How are they classified ? Discuss chemotherapy of malaria. 7

Or

What are neuroleptic agents ? Explain SAR of dibenzipine derivatives and substituted barbiturates.

4. (A) Discuss about myocardial cell, molecular basis of myocardial contraction and cardiovascular diseases. 8

Or

Offer synthesis of Chlorpromazine, Haloperidol, Imipramine and Amitriptyline.

- (B) What are analgesics ? Give SAR of mepiridine and methadone. 7

Or

Give synthesis and structure activity of 6-mercaptopurine and 5- fluorouracil.

5. (A) Select the correct alternatives in the following multiple choice questions. 5

(i) The biologically active form of insulin is.....

(a) monomer

(b) dimer

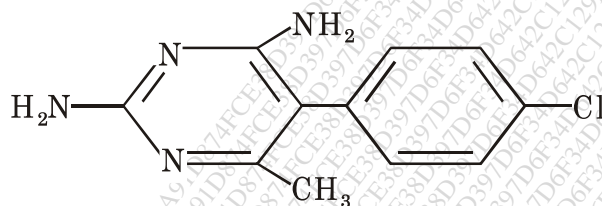
(c) trimer

(d) polymer

(ii) Retrovirus consists of.....

- (a) RNA (b) DNA
(c) PABA (d) None of the above

(iii) The drug having structure



is used in the treatment of.....

- (a) Cancer (b) Gout
(c) Malaria (d) Depressant

(iv) Pacemaker cells are used for generation of.....

- (a) Heart beats (b) Impulse
(c) Both (a) and (b) (d) None of these

(v)derivatives are used to observe location of tumors.

- (a) Hematoporphyrin (b) Quinoline
(c) Pyridine (d) Uranium

(B) Write short notes on any *two* of the following :

10

- (a) Sedatives and hypnotics
(b) Nitrogen mustards
(c) Publication examination of patent application.