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AI—357—2017

FACULTY OF SCIENCE

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

MARCH/APRIL, 2017

(CBCS Pattern)

ORGANIC CHEMISTRY

Paper XXIII (CH-544/2A)

(Medicinal Chemistry—II)

(Friday, 28-4-2017)

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 structure activity of 1, 4 dihydropyridines as calcium channel blockers.

(b) Give synthesis and structure activity of Malphalan.

(c) Explain the drugs used to test kidney functions.

(d) Discuss SAR of 4-amino quinoline derivatives.

(e) Give synthesis of SAR of 6, 7-benzomorphan.

2. Attempt any *three* of the following : 15

(a) What are antimalarial drugs ? Explain life cycle of plasmodia.

(b) Give structure and activity of cardiac glycosides.

(c) Discuss surgery and radiation therapy for treatment of cancer.

(d) Discuss SAR of promazine derivatives.

(e) Explain application for patents.

P.T.O.

3. (a) Give synthesis and structure activity of procainamide and methyldopa. 8

Or

Discuss SAR of methyl salicylate and aspirin. Give synthesis and uses of allopurinol.

- (b) How will you prepare primaquine ? Discuss chemotherapy of Malaria. 7

Or

Discuss SAR of Butyrophenone derivatives. Give synthesis of Haloperidol.

4. (a) What are β -adrenergic blocking agents ? Give synthesis and SAR of propranolol and papavarine. 8

Or

Discuss synthesis and SAR of stovaine and Hydantoins.

- (b) Explain structure and life cycle of the AIDs virus. 7

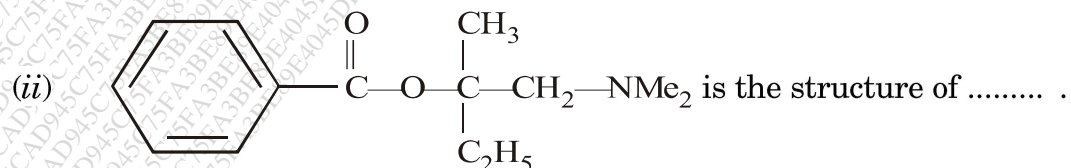
Or

Discuss SAR of sulphones as sedatives and hypnotics. Give synthesis of amitriptyline.

5. (A) Choose the *correct* alternative in the following : 5

(i) agents are used against malarial parasite.

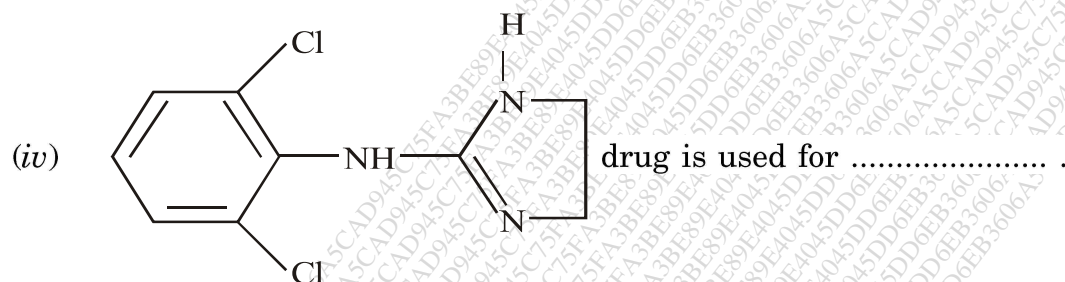
- (a) Antimetabolites
 (b) Prophylactic
 (c) Alkylating
 (d) Calcium chanel blocker



- (a) Lidocaine (b) Cocaine
 (c) Stovaine (d) Methohexital

(iii) 5-Fluorouracil act as antimetabolite to

- (a) Pyrimidine (b) Purine
(c) Pyrrole (d) Folic acid



- (a) Hypertension
(b) Arrhythmia
(c) Conjective heart failure
(d) Cancer

(v) is anthranilic acid derivative.

- (a) Ibuprofen (b) Aspirin
(c) Indomethacin (d) Mefanamic acid

(B) Write short notes on any *two* :

10

- (a) Ulcerative colitis
(b) Synthesis and structure activity of 6-mercaptopurine
(c) Synthesis and structure activity of pentothal sodium.