

B. N. BANDODKAR COLLEGE OF SCIENCE, THANE.
PRELIMINARY EXAMINATION-FEB, 2012
T.Y.BSc: Chemistry Applied component paper-I

Duration : 3Hrs.

Marks : 60

- N. B. 1) All Questions are compulsory.
2) Figure to the right indicate full marks.

1. (A) Define the following :- 2
(i) Prodrug (ii) LD 50
OR
(A) Define a drug. What are the requirements of ideal drug ? 2
(B) Give the synthesis of Atenelol. 2
OR
(B) Explain the mode of action of Glibenclamide. 2
(C) Give one example of Intoxication of drug during drug metabolism. 1
OR
(C) Mention the therapeutic use of Cephalexin . 1
(D) Explain the use of Gold nanoparticles in treatment of Parkinsonism . 1
OR
(D) Name hydrazides and pyrazines used for treatment of tuberculosis. 1
(E) What are Non-narcotic analgesics ? Give one example. 1
(F) What are vasodilators? 1
(G) How antiinfective agents developed from natural source ? 2
(H) Write synthesis of p-Acetyl amino benzene sulphonyl chloride from Aniline. 2
2. Attempt any four questions from the following :-
- (A) Explain the following terms :- 3
I) Drug addiction ii) Brand name iii) Pharmacophore
- (B) (i) Give synthesis of Phenytoin 2
(ii) Explain the term –drug toxicity 1
- (C) (i) Give synthesis of Paracetamol 2
(ii) Explain the term-brand name 1
- (D) Give synthesis of Trimethadione 3
- (E) (i) Mention the therapeutic use of the following drugs :-
(1) Alprazolam 2
(2) Aspirin
(ii) Write the structure of Midazolam 1
- (F) Explain the following :-
(i) Oral route of drug administration 2
(ii) Sustained release formulations and its advantages. 1

P.T.O.

3. Attempt any four questions from the following :--
- (A) (i) Name various inflammatory conditions 2
(ii) Write the structure of Mefenamic acid . 1
- (B) (i) Write mechanism of histamine release and its action . 2
(ii) Write the structure of Omeprazol . 1
- C) (i) Discuss : Insulin therapy 2
(ii) Write the structure of Enalapril . 1
- (D) Give synthesis of Levodopa. 3
- (E) Give synthesis of Salbutamol. 3
- (F) (i) Explain the mode of action of Barbiturates 2
(ii) Write the structure of Atenolol . 1
- 4 . Attempt any four questions from the following :--
- (A) (i) Give synthesis of Pyrimethamine. 3
- (B) (i) Explain structure activity relationship of benzodiazepine 2
(ii) Write the structure of Doxycycline. 1
- (C) Give an account of discovery of Librium. 3
- (D) Explain the term absorption, distribution, and excretion of drug. 3
- (E) What are antibiotics? Write structure and use of Cephalexin. 3
- (F) Give synthesis of Albendazole.
5. Attempt any four questions from the following :--
- (A) Give synthesis of Dapsone. 3
- (B) (i) What are antiamebic drugs? Write structure of Ornidazole 2
(ii) Explain use of silver nanoparticles in medicine. 1
- (C) (i) Give synthesis of Ethambutol 2
(ii) Write the structure of Stavudine. 1
- (D) (i) What are causes of cancer ? 1
(ii) Give synthesis of 5-fluorouracil. 2
- (E) What are carbon nano tubes? How are they used in vaccine delivery? 3
- (F) Give synthesis of 2,4,5-triamino-6-hydroxy pyrimidine from guanidine. 3
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