

Bankim Sardar College

Semester IV Examination

B.Sc Hons

Subject- Chemistry Hons , Paper-SEC on Pharmaceuticals
Answers of each group should be in separate Answer-Sheet

Group-A (F.M-10)

1. Select the correct answer

10x1=10

- (i) Paracetamol drug is used as a
 - (a) Analgesic
 - (b) Antipyretic
 - (c) Both of these
 - (d) None of these
- (ii) Select the drug which has an anti-inflammatory action
 - (a) Ibuprofen
 - (b) Chloroamphenicol
 - (c) Aciclovir
 - (d) Sulphonamide
- (iii) Choose Central Nervous System (CNS) active compounds from the following
 - (a) Cocaine
 - (b) Caffeine
 - (c) None of these
 - (d) Both of these
- (iv) Penicillin was discovered from the bacteria
 - (a) Lactobacillus
 - (b) Streptococcus
 - (c) Staphylococcus
 - (d) None of these

- (v) The Targets of the drugs are
 - (a) Proteins
 - (b) DNA & RNA
 - (c) Enzymes
 - (d) All of them
- (vi) Drug-Target interactions follow the following steps
 - (a) Lock and key
 - (b) Induced Fit
 - (c) Conformational Selection
 - (d) All of them
- (vii) The intermolecular interaction which is not found in Drug-macromolecules interaction is
 - (a) H-Bonding
 - (b) Covalent Bonding
 - (c) Van der waals interaction
 - (d) Ionic Interaction
- (viii) HIV is a
 - (a) DNA Virus
 - (b) RNA Virus
 - (c) Both are true
 - (d) None is true
- (ix) Which of the following is a pair of viral disease
 - (a) Common Cold & AIDS
 - (b) Dysentry & Common Cold
 - (c) Typhoid Tuberculosis
 - (d) Ringworm & AIDS
- (x) Sulfa drugs are commonly used as
 - (a) analgesics

- (b) antibacterials
- (c) antipyretics
- (d) all of these

Group-B (F.M-30)

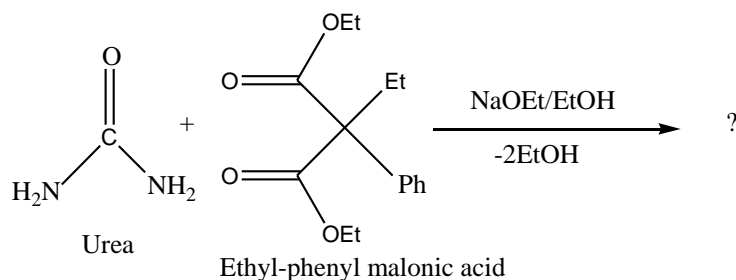
Answer all the questions

2. I. Write a short notes on 10x2=20
- (a) Drug Design and (b) Drug Development
- II. Why is Cephalosporin known as a popular antibiotic? Describe the classification of various generation types of cephalosporin. 10

Group C (F.M-50)

3. Answer the following Questions 10x2=20

- (i) Write down the criteria for which the refinement of 'lead compound(s)' is required to achieve.
- (ii) Define aerobic fermentation.
- (iii) What is analgesic?
- (iv) In which condition ethanol fermentation is carried out?
- (v) Write two uses of streptomycin.
- (vi) Write down the full name and structure of DAPSONE
- (vii) What are side effects of Chloramphenicol?
- (viii) What do you mean by nucleocapsid?
- (ix) Write down the structure of the product

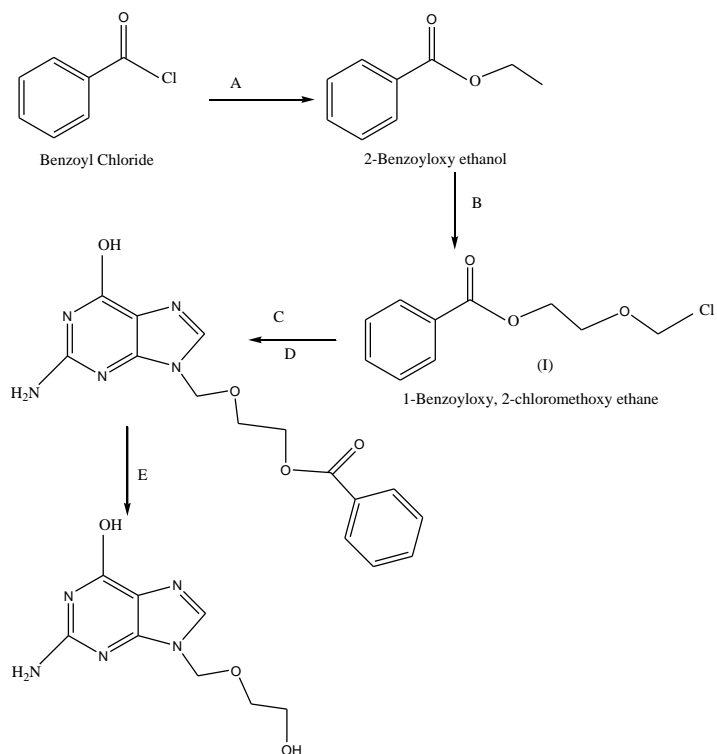


- (x) What is pharmacophore?

Answer any five among Q.4- Q.11

5x6=30

- Describe the industrial production of ethanol.
- Write through flowchart the production of penicillin from Penicillium Notatum.
- Write two uses of Vitamin B2, vitamin B12 and Vitamin C.
- How can you describe the biosynthesis of L-lysine
- What is viral replica? Describe the basic stages which are needed for viral replica.
- Complete the following reaction with mentioning the reagents A-E. Also write the name of the product.



- Describe the strategies which are used for optimization of drug-target interactions with consequent reduction of side-effects during drug designing.
- How many types of Barbiturates are approved to be used as Sedative-Hypnotics? Write the names of them. Depict the synthetic route of any one of them.

