

B.TECH. Degree Examination, December 2020

Seventh Semester

CH16012-DRUGS AND PHARMACEUTICAL TECHNOLOGY

(Regulation 2016)

Time: Three hours

Maximum : 80 Marks

Answer **ALL** questions

PART A - (8 X 2 = 16 marks)

1. Benzalkonium chloride is categorized as _____.
(a) Acidic preservative (b) Neutral preservative (c) Mercurial preservative (d) Quaternary ammonium compounds
2. Which of the following packaging material is protect the drug content against light?
(a) Plastic containers (b) Amber colored glass containers (c) Both (d) None
3. Partition co-efficient generally measures _____.
(a) Drug's lipophilicity (b) Ability of drug to cross cell membrane (c) Both (d) None
4. A water-soluble substance used as coating material in micro encapsulation process is _____.
(a) Polyethylene (b) Silicone (c) HEC (d) Paraffin
5. Clarify the significance of HTS technique. Why is it necessary?
6. State the significance of biotransformation of drugs with examples.
7. Comment on the benzyne intermediates when aryl halides react.
8. Give the significance of maintaining GMP in pharmaceutical industries. Justify your answer.

PART B - (4 X16 = 64 marks)

09. (a) Explicate the various steps to be followed to design a new drug. Explain the approval process that an IND must undergo at the regulatory authority of India. **(16)**

(OR)

- (b) Analyze the various steps that is followed to explain the Pharmacoeconomics. **(16)**

10. (a) Describe the Phase I reactions of biotransformation of drugs in human bodies. **(16)**

(OR)

- (b) Explain any two Mechanisms of Antimicrobial Action in human bodies with suitable reactions and diagrams. **(16)**

11. (a) Elucidate the various schemes of reactions Aryl halides undergo with suitable examples. **(16)**

(OR)

(b) Present the mechanisms of the following electrophilic substitution reactions: **(16)**

i. Halogenation

ii. Alkylation

iii. Acylation

Explain with suitable examples.

12. (a) Analyze the different criteria to be considered for selection of preservatives **(16)**
for different drugs and pharmaceutical products.

(OR)

(b) Evaluate the various factors to be considered for maintaining good practices **(16)**
for quality control Laboratories.