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Question Paper Code: 99905

B.E./B.Tech. DEGREE EXAMINATION, NOV 2022

Elective

Chemical Engineering

19UCH905 - DRUGS AND PHARMACEUTICAL TECHNOLOGY

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Full form of HVAC CO1- U
(a) Heating, ventilation, and air cooling (b) Heat, ventilation, and air conditioning
(c) Heating, ventilation, and air conditioning (d) None of above
2. Price charged for a technology should depend upon following: CO1- U
(a) Technology (b) High profit (c) Research cost (d) Market force
3. The principle of infrared spectra is based upon CO2- U
(a) Electronic excitation (b) Resonance (c) Dissociation (d) Molecular variations
4. In UV spectrophotometer, the light source is CO3- U
(a) Tungsten lamp (b) Sodium lamp (c) Deuterium lamp (d) None of these
5. The mode of action of ethylene oxide as a sterilization agent is by CO3- U
(a) Oxidation (b) Reduction (c) Alkylation (d) Protein precipitation
6. Aspirin ($pK_a = 3.49$) will be most soluble at pH CO3- U
(a) 1 (b) 2 (c) 6 (d) 3.5
7. Drugs (Price control) order 1995 and related orders from time to time CO4- U
are enforced by
(a) NPPA (b) CSIR (c) DBT (d) ICMR
8. The mode of action of ethylene oxide as a sterilization agent is by CO4- U
(a) Oxidation (b) Reduction (c) Alkalylation (d) Protein precipitation

9. Which of the following is used in nuclear medicine imaging? CO5- U
- (a) Alpha radiations (b) Gamma radiations
(c) Beta radiations (d) None of the above

10. All the following drugs induced cytochrome P 450 except CO5- U
- (a) Ketoconazole (b) Phenobarbitone (c) Rifampicin (d) Alcohol

PART – B (5 x 2= 10 Marks)

11. What are the types of therapeutic agents? CO1- U
12. Define partition co-efficient. CO2- U
13. What is meant by alkylation? CO3- U
14. What are the types of tablet? CO4- U
15. What are the different types of water soluble vitamins? CO5- U

PART – C (5 x 16= 80 Marks)

16. (a) Explain briefly about therapeutic agents and their applications. CO1- U (16)
- Or
- (b) What are therapeutic proteins? Explain the role and production of recombinant proteins as pharmaceutical drugs. CO1- U (16)
17. (a) Explain in detail about the various physicochemical properties of drugs action. CO2- U (16)
- Or
- (b) What are the peptide hormones? Give the detail accounts of various peptide hormones used in substitution therapy. CO2- U (16)
18. (a) Explain in detail about the sulfonation process used in drug industries. CO3- U (16)
- Or
- (b) Write in detail about the dehydration process and how dehydration preserves foods? CO3- U (16)
19. (a) Give the details account of advancement techniques used in granulation. CO4- U (16)
- Or
- (b) Explain in detail about the coating pills and write the importance of tablet coating. CO4- U (16)

20. (a) Give the detail account of polarimetry techniques used in pharmaceutical analysis. CO5- U (16)

Or

(b) Explain in detail about the refractometry and phmetry techniques used in pharmaceutical analysis. CO5- U (16)

