A **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 59922

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

Elective

Chemical Engineering

15UCH922-DRUGS AND PHARAMACEUTICAL TECHNOLOGY

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Lattice energy of Nacl is CO1- R

   (a) 540 kJ/mol (b) 756 kJ/mol (c) -756 kJ/mol (d) All of these

2. The evidence which indicates that a drug is stored extra vascularly is: CO1- R

   (a) Small clearance (b) Small apparent volume of distribution

   (c) Large apparent volume of distribution (d) Large clearance

3. Structurally Non-Specific Drugs having the thermodynamics activity in the range of CO2- R

   (a) 0.01-0.05 (b) 0.01-1.0 (c) <0.01 (d) 1.0-2.5

4. Phase IV of clinical trial is performed CO2- R

   (a) Before drug approval (b) After drug approval

   (c) During pharmacological screening (d) During pharmacokinetic study

5. Aspirin (pKa = 3.49) will be most soluble at pH CO3- R

   (a) 1.0 (b) 2.0 (c) 6.0 (d) 3.5

6. Williamson Synthesis is used for the preparation of: CO3- R

   (a) Aldehydes (b) Alcohols (c) Ethers (d) Amides

7. The mixer used for the purpose of mixing solid powder in ointment base is CO4- R

   (a) Turbine (b) Triple roller mill (c) Planetary (d) Agitator

8. For increased production of penicillin by fermentation, the pH is maintained between CO4- R

(a) 1 to 4 (b) 4.8 to 5.2 (c) 6.8 to 7.4 (d) 6 to 7

9. Darcy's law is related to CO5- R

(a) Sedimentation (b) Filtration (c) Centrifugation (d) Viscosity

10. Ion-exchange chromatography is used for the separation of CO5- R

(a) Aldehydes (b) Aminoacids (c) Fatty acids (d) Hydrocarbons

PART – B (5 x 2= 10 Marks)

11. Define Drugs. CO1- R

12. Define partition co-efficient. CO2- R

13. State Ferguson principle. CO3- R

14. Define tablet coating. CO4- R

15. Write about the nature of vitamins. CO5- R

PART – C (5 x 16= 80 Marks)

16. (a) Give the detail account of the various steps involved in the drug development process. CO1- U (16)

Or

(b) Describe organic therapeutic agents and their uses. CO1- U (16)

17. (a) Give the detail account of Drugs metabolism. CO2- U (16)

Or

(b) Explain in detail about the antibiotics and list out the type of antibiotics. CO2- U (16)

18. (a) Give the detail account of Condensation chemical conversion process and list out its applications. CO3- U (16)

Or

(b) Write in detail about the halogenation process used in the drugs industries. CO3- U (16)

19. (a) What is the need of quality control in pharmaceutical industries? Describe it. CO4- U (16)

Or

(b) Explain in detail about the coating pills and write the important of tablet coating. CO4- U (16)

20. (a) Explain in detail about the spectroscopy techniques used in pharmaceutical analysis. CO5- U (16)

Or

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