

Reg. No

Name

24P4018

M. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2024
SEMESTER 4 - PHARMACEUTICAL CHEMISTRY
COURSE : 21P4CPHT14EL - ADVANCES IN PHARMACEUTICAL OPERATIONS
(For Regular - 2022 Admission and Supplementary - 2021 Admission)

Duration : Three Hours

Max. Weights: 30

PART A

Answer any 8 questions

Weight: 1

1. Define New Invention (U, CO 4)
2. What are the additives for drugs filled in capsules? (Cr, CO 1)
3. Give two examples of radio isotopes used as antineoplastic agents. (Cr, CO 5)
4. What do you mean by IPR (U, CO 4)
5. What is a guard column used in different Chromatographic techniques? What is the purpose of using guard columns? (R, CO 5)
6. What are the different faces of clinical trial of a drug? (U, CO 4)
7. What is RIA? (R, CO 5)
8. What is a suppository? What special property this should have for the proper functioning? (E, CO 2)
9. What do you mean by dissolution controlled drug delivery system? (U, CO 2, CO 3)
10. There are certain liquid preparations such as Tinctures that is precipitated upon addition to water. How can their suspensions be produced? (U, CO 3)

(1 x 8 = 8)

PART B

Answer any 6 questions

Weights: 2

11. Give an account of the factors affecting the choice of extraction process of a drug (U, CO 5)
12. Give the functions of ophthalmic capsules? (An, CO 2)
13. Explain the filling of a capsule? (U, CO 2)
14. Explain the factors to improve physical stability of emulsions? (U, CO 3)
15. What are the criteria for naming an inventor in a patent ? (U, CO 4)
16. Describe the nonpatentable inventions in India (U, CO 4)
17. Explain how zeta potential measurements helps to understand about degree of flocculation. (A, CO 3)
18. Bring out the applications of electrophoresis. (U, CO 5)

(2 x 6 = 12)

PART C

Answer any 2 questions

Weights: 5

19. Elaborate targeted drug delivery based on various strategies. Brief about various carriers used for targeted drug delivery ? (An, CO 1)
20. a) Give the principle and working of a GCMS. What is the advantage of GCMS over GC? What are the applications in Pharmaceutical Industry?
b) Explain the principle of separation and the applications of gel electrophoresis. (U, CO 5)

21. Bring out the significance of solubility and partition coefficient of a compound to be used as a drug in liquid formulations. (E, CO 2)
Explain how can you improve solubility of poorly soluble drug.
22. Write in detail different types of capsule used? Differentiate between hard and soft gelatin? (An, CO 2)
Explain its manufacture?
- (5 x 2 = 10)**

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Describe the drug delivery systems and pharmaceutical dosage forms.	U	2, 19	6
CO 2	Explain preformulation studies and stability testing of drugs.	R	8, 9, 12, 13, 21, 22	16
CO 3	Illustrate the application of colloids and chromatography in pharmaceutical chemistry.	A	9, 10, 14, 17	6
CO 4	Describe the principles of forensic pharmacy.	R	1, 4, 6, 15, 16	7
CO 5	Explain different methods of extraction and application of radiopharmaceuticals.	R	3, 5, 7, 11, 18, 20	12

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;