Rajiv Gandhi University of Health Sciences, Karnataka
IV Year B.Pharm Degree Examination - JAN-2019

Time: Three Hours   **Max. Marks: 70 Marks**

INDUSTRIAL PHARMACY – I (RS-3)
a. Advanced Industrial Pharmacy

Q.P. CODE: 2621

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Define microencapsulation. Explain in detail the preparation of microcapsules by temperature change method and polymer-polymer interaction process method.
2. Discuss various steps involved in the pilot plant scale up studies for solid dosage forms.
3. Discuss the various approaches for design of controlled delivery systems. Explain their advantages and disadvantages.

SHORT ESSAYS (Answer any Six)   **6 x 5 = 30 Marks**

4. Write a note on In-Vitro evaluation of controlled release systems.
5. Write a note on liposomes.
6. What are nanoparticles? Give their applications as drug carriers.
7. Describe briefly the air suspension method of microencapsulation with the help of neat labeled diagram.
8. Explain solid dispersion technique for the improvement of bioavailability of drugs.
9. List the general considerations in pilot plant scale up studies? Give the significance of pilot plant scale up studies.
10. Write a note on bolus veterinary formulations.
11. What is process validation? How it is useful in the pharmaceutical industry?

SHORT ANSWERS   **10 x 2 = 20 Marks**

12. What are allergenic extracts?
13. Mention the methods to improve the bioavailability of drugs.
14. Define 'Timed release' and 'Prolonged release'.
15. What is standard operating procedure?
16. Write a note on herbal tooth toothpaste.
17. Mention any four marketed products of transdermal patches..
18. Advantages of buccal drug delivery systems.
19. What are the mechanisms of drug release from controlled delivery systems?
20. Mention the advantages of ocular drug delivery systems.
21. What is drug targeting?

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