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Rajiv Gandhi University of Health Sciences, Karnataka
IV Year B.Pharm Degree Examination - Sep 2012

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. Explain the advantages and disadvantages of transdermal drug delivery systems. Discuss in detail various approaches in designing of transdermal drug delivery systems
2. What are the objectives of pilot- plant scale up process? Explain the considerations in pilot plant scale up techniques for solid dosage forms
3. Discuss the various mechanisms of drug targeting. Write the advantages of drug targeting

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

4. Explain the concept of inclusion complexes
5. Discuss about storage and units of potency for allergenic extracts
6. Explain types of process validation
7. Write the advantages and applications of microencapsulation
8. Explain the advantages and applications of liposome
9. Explain the formulation and manufacturing of herbal anti-tussive preparation
10. Classify and explain veterinary products
11. Explain the advantages and disadvantages of buccal drug delivery system

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

12. Why drugs with short and long biological half-lives are not suitable for controlled release formulations
13. Define allergy and allergens
14. Name four polymers used as release retardants in matrix tablets
15. Give four applications of nasal drug delivery systems
16. Give two examples each for pollen and dust allergens
17. Write the principle of ion – exchange resin based controlled release formulations
18. Give two examples for Ocusert preparations
19. Briefly write about space requirement in pilot plant scale up unit
20. Write any two importance of *in vitro* evaluation of controlled release formulations
21. Write a note on microencapsulation by incompatible polymer addition

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