UG Even Semester (CBCS) Exam., May—2017

PHARMACEUTICAL SCIENCES

(6th Semester)

Course No. : BPH–601 (C)

(Pharmaceutical Technology—II)

Full Marks : 75
Pass Marks : 30

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. *(a)* Define microencapsulation. What are the different types of microcapsules? Describe the application of microencapsulation in pharmacy. 1+3+6=10

(b) What are core materials? Describe the characteristics of coating materials for microencapsulation. 1+4=5

2. *(a)* Describe the different steps of micro-encapsulation by coacervation phase separation method. 8

(b) Giving suitable illustration, explain the phenomenon of coacervation induced by temperature change. 7

UNIT—II

3. *(a)* Define pyrogens. Why is it essential for sterile products to be free from pyrogens? 1+2=3

(b) Write a note on the role of the following formulation additives with suitable examples : 3×4=12

(i) Antibacterial agents

(ii) Antioxidants

(iii) Buffers

(iv) Tonicity contributors

4. Discuss the following quality control tests for parenteral products : 5×3=15

(a) Leaker test

(b) Clarity test

(c) Pyrogen test

UNIT—III

5. *(a)* Discuss the formulation aspects of ophthalmic preparations. 12

(b) Write a short note on packaging of ophthalmic products. 3

6. *(a)* Discuss the different types of contact lenses with their advantages and limitations. 12

(b) Write a short note on soaking and storage solutions for hard contact lenses. 3

UNIT—IV

7. Write notes on the following components of aerosol package : 7½×2=15

(a) Propellent

(b) Valve assembly

8. *(a)* Define aerosol. Write few application of aerosol dosage form. 2+3=5

(b) Discuss the different filling operations in the manufacturing of pharmaceutical aerosols. 10

UNIT—V

9. *(a)* What are the different types of containers used for primary packaging of solid, liquid and semi-solid dosage forms? 10

(b) Write a note on glass as primary packaging material. 5

10. *(a)* Write in detail about the quality control of pharmaceutical packaging components. 9

(b) What are the WHO quality specifications required for the packaging material for different types of dosage form? 6

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