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

Time: Three Hours   **Max. Marks: 80 Marks**

PHARMACEUTICAL ENGINEERING
(Revised Scheme - 2)
Q.P. CODE: 1964

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. Describe construction and working of fluidized bed dryer. Mention its demerits and pharmaceutical applications
2. Give construction and operational details of a mill suitable for size reducing thermolabile substances
3. Discuss Mier's supersaturation theory. Write the construction and working of a Swenson walker crystallizer

SHORT ESSAYS (Answer any Eight)   **8 x 5 = 40 Marks**

4. Add a note on various industrial hazards and safety measures for their prevention
5. What is corrosion? Explain mechanisms of corrosion
6. What are the methods for determination of humidity? Explain any one method
7. Explain theory of centrifugation
8. Describe the working of chain conveyor
9. Describe the principle and working of homogenizer
10. Discuss various phases of 'drying rate curve'
11. Explain principle of molecular distillation
12. Discuss merits and demerits of rubber as material for construction
13. What are surface filters? Explain the need and properties of 'Filter aids'

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

14. Give applications of Fourier's law
15. What are the advantages of multiple effect evaporators?
16. What is homogenization?
17. Explain the term relative volatility
18. Distinguish between 'filtration' and 'clarification'?
19. Give two pharmaceutical applications of lyophilyzation
20. Name two dryer used in pharmaceutical industry
21. What is meant by Caking of crystals?
22. What is Psychometric chart?
23. Classify evaporators

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