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## Rajiv Gandhi University of Health Sciences, Karnataka

Third year B.Pharm Degree Examination – August 2010

Time: Three Hours Max. Marks: 70 Marks

# PHARMACEUTICAL ENGINEERING (Revised Scheme 3)

Q.P. CODE: 2614

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

#### LONG ESSAYS (Answer any Two)

 $2 \times 10 = 20 \text{ Marks}$ 

- 1. Discuss the theory of filteration. What is a filter leaf?
- 2. Discuss the theory of air conditioning
- 3. Discuss the theory of mixing. Add a note on planetary mixer

#### **SHORT ESSAYS (Answer any Six)**

 $6 \times 5 = 30 \text{ Marks}$ 

- 4. Deduce Fourier's law
- 5. Explain the working of a film evaporator
- 6. Discuss the functioning of a fluidized bed drier
- 7. Explain the working principle of fluid energy mills
- 8. Describe meta filters
- 9. Discuss steel as a material of pharmaceutical plant construction
- 10. Write in brief on industrial hazards
- 11. Discuss Reynold's experiment to understand mechanism of fluid flow

### **SHORT ANSWERS**

 $10 \times 2 = 20 \text{ Marks}$ 

- 12. What is an azeotrope? Give two examples
- 13. What is Raoult's law?
- 14. Define humid heat and humid volume
- 15. Draw a neat diagram of sigma mixer
- 16. Name two dimensionless numbers
- 17. Mention two advantages of orifice meter
- 18. What is pitting corrosion?
- 19. How do you prevent caking in crystal?
- 20. Give the classification of centrifuges
- 21. Define Calendria. Give its significance

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