

Rajiv Gandhi University of Health Sciences, Karnataka

Third Semester B. Pharm Degree Examination – 21-Jan-2020

Time: Three Hours**Max. Marks: 75 Marks****PHARMACEUTICAL ENGINEERING****Q.P. CODE: 5012**

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, working, advantages, and disadvantages of fluid energy mill.
2. Derive an equation for heat transmission through a metal wall from Fourier's law. Write the applications of thermal conductivities.
3. Explain the theory of drying giving more emphasis on rate of drying.

SHORT ESSAYS (Answer any Seven)**7 x 5 = 35 Marks**

4. Explain principle and working of simple rotameter.
5. Explain construction and working of an equipment used for size analysis of powders.
6. Describe the construction and working of forced circulation evaporator.
7. Explain the principle of flash distillation with the help of suitable apparatus.
8. Describe the construction and working of planetary mixer. Write its uses.
9. Describe the construction and working of meta filter.
10. Describe the construction and working perforated basket centrifuge.
11. Describe plastic as a material of plant construction.
12. Explain the theories of corrosion.

SHORT ANSWERS (Answer All)**10 x 2 = 20 Marks**

13. Write the principle involved in pitot tube.
14. List the equipment used for size separation of powder particle using air as a medium.
15. In what way evaporation is different from drying.
16. Write the uses of Fluidised Bed Dryer
17. What are the advantages of vacuum dryer over drum dryer?
18. Write the differences between solid-solid and liquid-liquid mixing.
19. What happens to the rate of filtration when filter aids are used in more than required concentration?
20. Write an equation for centrifugal effect. Explain the terms.
21. List two advantages and two disadvantages of glass as material of construction.
22. Name some conveyors used in pharma industry.
