

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Pharm Degree Examination - 10-Jan-2020

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)

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

- 1. Classify dryers. Explain the construction, working, advantages & disadvantages of fluidized bed dryer.
- 2. Explain factors affecting size reduction. Describe the construction & working of fluid energy mill.
- 3. Classify crystallizers. Give the construction and working of Krystal crystallizer.

SHORT ESSAYS (Answer any Eight)

 $8 \times 5 = 40 \text{ Marks}$

- 4. Explain the different types of corrosion.
- 5. Describe types of filter media.
- 6. What is azeotropic distillation? Mention the types of azeotropic mixtures.
- 7. Derive an equation for conduction of heat through a metallic wall.
- 8. Describe in brief factors affecting evaporation.
- 9. Give the construction and working of belt conveyor.
- 10. Discuss theory of air conditioning.
- 11. Discuss the methods of prevention of vortex formation.
- 12. Explain advantages and limitations of rubber as a material of plant construction.
- 13. Write a note on Industrial hazards and safety.

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

- 14. Mention advantages of vacuum dryer.
- 15. Define radiation. Mention advantages of radiation as mode of heat transfer.
- 16. Give two examples of dimensionless groups.
- 17. List variants of ball mill
- 18. Define equilibrium moisture content and critical moisture content.
- 19. Give applications of steam distillation.
- 20. Define humidity and relative humidity.
- 21. Define grey body & black body.
- 22. What are filter aids?
- 23. Mention the methods to prevent caking of crystals.
