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 x 10 = 20 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 x 5 = 40 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 x 2 = 20 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.

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