Rajiv Gandhi University of Health Sciences, Karnataka

Third Semester B. Pharm Degree Examination – 09-Nov-2023

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.
All the questions are compulsory

LONG ESSAYS **2 x 10 = 20 Marks**

1. Describe all the features of ball mill. Explain its applications in pharmacy.

   OR

   Elaborate the concept of multiple effect evaporation giving emphasis on its economy.
2. Explain the principle, construction, working and other features of planetary mixer.

SHORT ESSAYS **7 x 5 = 35 Marks**

3. Describe Reynolds classic experiment elucidating different types of flow patterns.

   OR

   Explain various grades of powders official in pharmacopoeia.
4. Compare heat transmission following counter-current and parallel-current feed techniques with relevant equations.

   OR

   Describe the principle and applications of molecular distillation.
5. Explain the applications and mechanism of drying process.
6. Describe the construction and working of filter leaf.
7. Explain the principle and working of perforated basket centrifuge.
8. Write the working features of belt conveyor.
9. Explain the theories of corrosion.

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

10. Differentiate sedimentation and elutriation methods in size separation.
11. What is the significance of 'Float' in rotameter?
12. Write the importance of Florentine receiver.
13. How to enhance the efficiency of heat transfer in heat exchangers?
14. List the different impellers indicating their flow patterns.
15. **Define Stefan Boltzmann equation**
16. Name the type of centrifuge for handling of large volume material
17. What are filter aids? Explain their methods of handling.
18. Explain protective linings with respect to corrosion control.
19. List the types of glass container and mention the formulations stored in each type of glass container

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