# Rajiv Gandhi University of Health Sciences, Karnataka
## III Year B.Pharm Degree Examination – DEC-2014

**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.

**LONG ESSAYS (Answer any Two)**                                          **2 x 10 = 20 Marks**

1. Define filtration. Write its mechanisms. Explain in detail about the construction and working of plate and frame filter press?
2. Define corrosion. Explain different types of corrosion. Write a note on control and prevention of corrosion.
3. Write the mechanism of crystallization. Describe the principle, construction and working of Krystal crystallizer.

**SHORT ESSAYS (Answer any Six)**                                          **6 x 5 = 30 Marks**

4. Write a note on azeotropic distillation.

5. Write the construction and working of a hammer mill.

6. Explain the temperature gradient in parallel and counter current heat flow.

7. Define an "effect". Write a note on single effect evaporator.

8. Explain different type of impellers.

9. Write a note on refrigeration cycle.

10. Explain the construction and working of super centrifuge.

11. Explain construction and working of spray dryer.

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

12. Define the term "head". List the various heads in Bernoulli's theorem.

13. Write a note on bag filter.

14. How is it possible to prevent the heat generation during working of colloid mill?

15. Explain Stefan Boltzmann equation.

16. Explain plastic as a material of plant construction.

17. Write a note on fire extinguishers.

18. What are monometers? Write its types.

19. What are the advantages of conveying?

20. Explain the methods to prevent vortex formation.

21. Define dimensional and dimensionless numbers. Write one equation in each case.

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