

# Rajiv Gandhi University of Health Sciences, Karnataka

## Third Semester B. Pharm Degree Examination – 31-Mar-2021

**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 the construction, working, advantages and disadvantages of Hammer mill.

**OR**

Define Distillation. Explain the Principle and working of Steam Distillation.

2. Describe the principle, construction, working, advantages and disadvantages of a Ribbon Blender Mixer with the help of a neat diagram.

#### **SHORT ESSAYS**

**7 x 5 = 35 Marks**

3. Explain principle and working of simple manometer.

**OR**

Explain principle and working of cyclone separator.

4. Explain the modes of heat flow.

**OR**

Explain the construction and working of Forced circulation evaporator.

5. Describe the construction and working of a Spray dryer.
6. Describe the construction and working of a Meta filter.
7. Explain the construction and working of supercentrifuge.
8. Define and classify types of Corrosion. List four methods of corrosion prevention.
9. Classify the materials of plant construction. Explain the uses of ferrous metals.

#### **SHORT ANSWERS**

**10 x 2 = 20 Marks**

10. What is Reynolds number? Write its significance.
11. List the various grades of powders official in pharmacopoeia.
12. Define Block body and Grey body.
13. What are the different modes of feed in multiple effect evaporator?
14. What are impellers? Write the use of Silverson Mixer.
15. Recommend a suitable dryer for the drying. a) Pastes b) Granular solids.
16. Distinguish filtration and clarification
17. List two pharmaceutical applications of Glass.
18. List out the different mechanisms of size reduction.
19. Write the uses of Belt conveyor.

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