

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm. - SEMESTER- II • EXAMINATION – SUMMER -2020

Subject Code: BP203TP**Date: 28-10-2020****Subject Name: Pharmaceutical Engineering****Time: 10:30 AM TO 1:30 PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain Bernoulli's Theorem in detail. **06**
(b) Discuss principle, construction, working and advantages of Rotameter. **05**
(c) Discuss the objectives and various mechanisms of size reduction with examples. **05**
- Q.2** (a) Write a note on construction, principle, working and applications of ball mill. **06**
(b) Give the classification of powders based on size and list the specification and standard for sieves. **05**
(c) Describe with a clean and labeled diagram the construction, principle, working, advantages, disadvantages and application of cyclone separator. **05**
- Q.3** (a) Write down in detail about different methods of heat transfer. **06**
(b) Define and explain the terms with appropriate example **05**
i) Heat exchanger ii) Black body
(c) Explain principal, construction, working, merits and demerits of climbing film evaporator with labeled diagram. **05**
- Q.4** (a) Describes the factors influencing evaporation process. **06**
(b) Describe with labeled diagram steam distillation. **05**
(c) Write a note on Distillation under reduced pressure. **05**
- Q.5** (a) Draw the drying rate curve and explain the different stages of it. **06**
(b) List out Dryers. Write a note on drum dryer. **05**
(c) Explain principle, construction, working, applications, advantages and disadvantages of sigma-blade mixer with the help of a diagram. **05**
- Q.6** (a) Classify impeller and explain all. **06**
(b) Describe the construction and working of meta filter with diagram. **05**
(c) Write a note on factors affecting filtration Process. **05**
- Q.7** (a) Explain theory of centrifugation. Give its applications in pharmacy. **06**
(b) Discuss in detail Non-Perforated basket type centrifuge. **05**
(c) Explain different types of corrosion with its prevention. **05**
