

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 3 EXAMINATION – SUMMER -2020**Subject Code: 2230002****Date: 27-10-2020****Subject Name: Pharmaceutical Engineering****Time: 2:30 PM TO 5:30 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) Discuss the factors affecting on selection of material for pharmaceutical plant. **06**
(b) Explain Fourier's law. **05**
(c) What is black body? Write a short note on Stefan- Boltzman's law. **05**
- Q.2** (a) Classify the types of fluid flow and Explain basic equations of fluid flow. **06**
(b) Differentiate between steady state and unsteady state. **05**
(c) Write a detail note on combustion. **05**
- Q.3** (a) Describe the role of stainless steel in Pharm. Industry **06**
(b) Explain different types of graphical representation. **05**
(c) Explain the terms dimension and units. **05**
- Q.4** (a) Draw the diagram & explain in details about Liquid-Liquid heat Exchangers with spacer. **06**
(b) Discuss the influence of mass transfer on unit operations. **05**
(c) Explain Bernoulli's theorem in detail. **05**
- Q.5** (a) Differentiate: U-tube manometer and inclined manometer. **06**
(b) Discuss construction and working of single pass tubular heat exchanger. **05**
(c) Discuss the experiment of Rota meter. **05**
- Q. 6** (a) Write a theories of corrosion and its prevention **06**
(b) Differentiate: forklifts and pallets. **05**
(c) Describe with diagram Centrifugal pump. **05**
- Q.7** (a) Write a note on gas laws with assumptions to be made. **06**
(b) Explain briefly Bucket type steam trap. **05**
(c) Write a short note on Reynold's number & its significance. **05**
