

Roll No.: _____

Enrollment No. _____

PARUL UNIVERSITY

PARUL INSTITUTE OF PHARMACY

M.PHARM FIRST SEMESTER · FIRST INTERNAL EXAMINATION: 2018-19

Subject Name: Product Development and Technology Transfer

Subject Code: MQA 104T

Time: 10:00 am to 11:30 am

Date: 20/09/18

Total Marks: 30

Instructions:

1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

Q.1 Long Answers: (Any One)

- (1) Give requirements of Pharmaceutical packaging materials. Discuss Quality control tests for Containers and closures. **10**
- (2) Enlist various techniques for the study of Crystal properties and polymorphism. Discuss role of XRD spectroscopy and Microscopy in detail. **10**

Q.2 Short Answers: (Any Four)

- (1) Discuss in brief additives used in manufacturing of containers and closures. **05**
- (2) Enlist various solubility enhancement techniques. Explain Co-crystallization and co-solvency in brief. **05**
- (3) What is impurity? Give classification of impurity with examples. **05**
- (4) Give role of Thermal methods in Preformulation study. **05**
- (5) Write a brief note on Enteral packaging. **05**
