

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**M.PHARM - SEMESTER-2 EXAMINATION – SUMMER-2019**

**Subject Code: MPT203T****Date: 31/05/2019****Subject Name: Pharmaceutical regulatory affairs****Time: 10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

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

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|-------------|-----|--|-----------|
| <b>Q.1</b>  | (a) | Discuss the importance of documentation in Pharmaceutical industry.                      | <b>06</b> |
|             | (b) | Explain in brief about code of federal regulation title 21.                              | <b>05</b> |
|             | (c) | Write the functions of CROs. Write a brief note on outsourcing of BA BE study.           | <b>05</b> |
| <b>Q.2</b>  | (a) | What are the types of ANDA? Discuss the guidance documents required to file ANDA.        | <b>06</b> |
|             | (b) | Explain in detail about content, format and review cycle for NDA filing.                 | <b>05</b> |
|             | (c) | Write a detailed note on guideline for data integrity and quality matrices.              | <b>05</b> |
| <b>Q.3</b>  | (a) | Define CTD & eCTD. Explain modules of CTD.   | <b>06</b> |
|             | (b) | Explain the objective of TGA regulation. Discuss the TGA guideline for OTC product.      | <b>05</b> |
|             | (c) | Write a detailed note on QSEM guideline.   | <b>05</b> |
| <b>Q.4</b>  | (a) | Explain format and content of IND in detail.   | <b>06</b> |
|             | (b) | Give the comparison between in IND, NDA and ANDA for non-clinical drug development.      | <b>05</b> |
|             | (c) | Write the different steps of ANDA regulatory approval process.                           | <b>05</b> |
| <b>Q.5</b>  | (a) | Give the composition, functions and responsibilities of Institutional review board.      | <b>06</b> |
|             | (b) | Discuss in brief about schedule Y for clinical trial development.                        | <b>05</b> |
|             | (c) | What are the regulations related with combination products?                              | <b>05</b> |
| <b>Q. 6</b> | (a) | Write a short note on SUPAC for non-sterile semisolid dosage form with suitable example. | <b>06</b> |
|             | (b) | Write a brief note on BMR for tablet manufacturing using wet granulation method.         | <b>05</b> |
|             | (c) | Describe in brief the responsibility of international conference of harmonization.       | <b>05</b> |
| <b>Q.7</b>  | (a) | Write a brief note on Hatch-Waxman act and amendments including its benefits.            | <b>06</b> |
|             | (b) | Short note on investigator brochure (IB) of Non clinical drug development                | <b>05</b> |
|             | (c) | Explain drug master file in brief with its type.   | <b>05</b> |

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