

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**M. Pharm. – SEMESTER – II • EXAMINATION – WINTER • 2014**

**Subject Code: 2920202****Date: 26-12-2014****Subject Name: Global Regulatory Requirements****Time: 10:30 am - 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) | Describe in brief about SUPAC guidelines for immediate release dosage forms.                                                                        | <b>06</b> |
|            | (b) | Differentiate NDA and ANDA. Explain the concept of PARA I to IV filing.                                                                             | <b>05</b> |
|            | (c) | Define prospective, concurrent and retrospective validation. Explain in brief validation of rotary tablet machine.                                  | <b>05</b> |
| <b>Q.2</b> | (a) | Discuss role of CDRH, CDER & CFSAN in USFDA guidelines.                                                                                             | <b>06</b> |
|            | (b) | Define 'Orange Book', 'Green Book' and 'Blue Book'. Explain statistical criteria for Bio-equivalence in context to orange book.                     | <b>05</b> |
|            | (c) | Write in brief about freedom of information (FOIA).                                                                                                 | <b>05</b> |
| <b>Q.3</b> | (a) | Discuss the WHO certification scheme for pharmaceutical products.                                                                                   | <b>06</b> |
|            | (b) | Explain various phases of drug development and approval.                                                                                            | <b>05</b> |
|            | (c) | Explain Supplemental New Drug Application with recent examples.                                                                                     | <b>05</b> |
| <b>Q.4</b> | (a) | Discuss the phases of investigation in context to IND.                                                                                              | <b>06</b> |
|            | (b) | Describe strategy for analytical method development for a new solid dosage formulation and discuss its validation parameters as per ICH guidelines. | <b>05</b> |
|            | (c) | Write a note on computer system validation.                                                                                                         | <b>05</b> |
| <b>Q.5</b> | (a) | Define TGA & therapeutic good. Discuss the TGA's risk management approach.                                                                          | <b>06</b> |
|            | (b) | Describe package integrity tests for Parenterals. Write a note on packages for pediatrics and geriatrics.                                           | <b>05</b> |
|            | (c) | Describe Enterprise Resource Planning (ERP) system in detail.                                                                                       | <b>05</b> |
| <b>Q.6</b> | (a) | Define CTD & eCTD. Explain modules of CTD and write in brief technical requirements of eCTD.                                                        | <b>06</b> |
|            | (b) | Describe evaluation of the stability data as per ICH guidelines.                                                                                    | <b>05</b> |
|            | (c) | Write a note on Hatchwaxman amendments.                                                                                                             | <b>05</b> |
| <b>Q.7</b> | (a) | Write a note on MHRA.                                                                                                                               | <b>06</b> |
|            | (b) | Describe IIG in detail.                                                                                                                             | <b>05</b> |
|            | (c) | Explain DMF in brief.                                                                                                                               | <b>05</b> |

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