

GUJARAT TECHNOLOGICAL UNIVERSITY
M. PHARM. - SEMESTER – II • EXAMINATION – WINTER 2012

Subject code: 2920001**Date: 08-01-2013****Subject Name: Research Methodology****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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| Q.1 | (a) Describe the significance of scientific writing. Give the differences between research paper writing and thesis writing | 06 |
| | (b) Enlist different reference styles used for preparing bibliography. Give examples for writing a reference of; Research article, Review article, Book and Presentation using any two types of reference style. | 05 |
| | (c) Explain objectives and stages of the research. | 05 |
| Q.2 | (a) Explain the meaning of the following in context of Research design.
(a) Extraneous variables; (b) Confounded relationship;
(c) Experimental and Control groups. | 06 |
| | (b) Describe in detail coding, cleaning and analysis of data of quantitative study with suitable examples. | 10 |
| Q.3 | (a) Define the term “research”. Discuss types of research in brief. | 06 |
| | (b) Define: Research Hypothesis. Write characteristics of Hypothesis. | 05 |
| | (c) Describe importance and techniques of documentation in the research. | 05 |
| Q.4 | (a) Which are different sections of thesis writing? Explain in brief Abstract and Discussion writing | 06 |
| | (b) Give detail account on literature search and explain formulation of problem in research with help of literature with suitable example. | 10 |
| Q.5 | (a) Explain the limitations and sources of error in research | 06 |
| | (b) State various key factors of oral presentation. | 05 |
| | (c) Describe the characteristics of good questionnaire | 05 |
| Q.6 | (a) Describe in detail various sources for the procurement of research grant. | 06 |
| | (b) Patent searching – an essential part of literature review; critically examine the above statement | 05 |
| | (c) Mr. XYZ is planning to submit following Research project to the AICTE for procurement of the grant, “In vivo and invitro Hepatoprotective activity of spray dried methanolic extract of <i>Eclipta Alba Linn.</i> ”. Give total cost planning for this research project. | 05 |
| Q.7 | (a) Describe various modes of industry-institute interaction. Discuss the steps to establish and running the industry institute partnership cell (IIPC) at your institute. | 06 |
| | (b) Describe the various methods of data collection with suitable example. Also give the merits and demerits of each method. | 05 |
| | (c) Describe the importance and use of computer in documentation of research work. | 05 |
