

GUJARAT TECHNOLOGICAL UNIVERSITY**Ph. D. - SEMESTER- I • EXAMINATION – SUMMER- 2018****Subject Code: PHP001****Date: 24-05-2018****Subject Name: Research Methodology****Time: 02:30 pm to 05:30 pm****Total Marks: 70****Instructions:**

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

- Q.1** Answer in Brief: **2x5**
- | | | |
|------------|---|-----------|
| i | What is patent? Which are the online search engines (sites) used for patent search? | = |
| ii | Enlist criteria for good hypothesis. | 10 |
| iii | What care should be taken in writing references? Enumerate styles of writing references. | |
| iv | Define Basic research with suitable example. | |
| v | Hiding single outlier result in the set of 50 is unethical? How? What remedy should be taken to solve it? | |
- Q.2**
- | | | |
|-----------|---|-----------|
| a. | Tuberculosis is considered as disease of major health concern for our country. You have been asked to carry out systematic research on discovery of new drug for it. How will you carry out this project systematically? Discuss in detail. | 10 |
| b. | Mr. Dave has successfully completed research project with very good outcome. He wants to publish the result in very good journal. Guide him to make impeccable publication. He also needs your help to make impressive presentation to present in international conference. Do the needful. | 10 |
| c. | Mr. Den wishes to carry out a research project without doing any unethical practice in the work. What care should he take? | 5 |
- Q.3**
- | | | |
|-----------|---|----------|
| a. | Describe the methods of presenting outcome of research in graphical way. | 5 |
| b. | You have been given a project of modifying wheel chair used by elderly people to make it user friendly. Outline the plan to carry out this project for successful outcome. How will you check the plagiarism in the presented project? How will you prevent it? | 5 |
| c. | Dr. Dhawan's group is working on discovery of antidiabetic drug, They have generated the hypothesis and project looks promising. For further research they need | 5 |
| d. | funds. Suggest him funding agencies. What care he should take in presenting project to achieve successful funding. | 5 |
| e. | Literature search is an important part of research – Justify. How do we carry out systematic literature search? | 5 |
- Q.4** Answer Precisely (no description required): **1x1**
- | | | |
|-------------|------------------------------------|-----------|
| i | Define impact factor? | = |
| ii | Describe bibliography. | 10 |
| iii | Define Trade Mark. | |
| iv | Define h-index. | |
| v | Define ANOVA. | |
| vi | What is the full form of STN? | |
| vii | Define Short communication. | |
| viii | Give full form of UGC. | |
| ix | Give the structure of good thesis? | |
| x | What is citation? | |
