

[121]

Sardar Patel University**M.Sc. Renewable Energy Semester: Fourth****Course Code: PS04CSYT01****Course Title: Research Methodology****Date and Day: 10-04-2017, Monday****Time: 02:00 PM to 05:00 PM****Total Marks: 70**

- Note: 1. All the questions are compulsory
2. Figures on the right bracket indicated marks

Q-1: Select the correct answer**(10)**

- i. Quantitative research is based on the measurement of
 - a) Quantity or amount
 - b) Quality or kind
 - c) Formulation of theory
 - d) Experience of observation
- ii. A careful investigation or inquiry specially through search for new facts in any branch of knowledge is called as
 - a) Discovery
 - b) Research
 - c) Invention
 - d) Technique
- iii. One of the following is not an open source software
 - a) D-Space
 - b) Green-stone
 - c) Windows
 - d) Linux
- iv. Independent variables that are not related to the purpose of the study, but may affect the dependent variable are termed as
 - a) Fixed variable
 - b) Basic units
 - c) Extraneous variable
 - d) Values
- v. Classification of all libraries has been made by.....
 - a) IFLA
 - b) UNESCO
 - c) UNISIST
 - d) INSDOC
- vi. Which of the following is not covered under Intellectual Property Rights?
 - a) Copyrights
 - b) Trade Marks
 - c) Patents
 - d) Thesaurus
- vii. A research paper is a brief report of research work based on
 - a) Primary Data only
 - b) Both primary & secondary data
 - c) Secondary Data only
 - d) None of the above
- viii. is a type of plagiarism by altering the few words, changing their order or closely following the structure of their argument
 - a) Collusion
 - b) Verbatim
 - c) Paraphrasing
 - d) Inaccurate citation
- ix. An author-level metric that attempts to measure both the productivity and citation impact of the publications of a scientist or scholar is termed as
 - a) h- index
 - b) Citation
 - c) Impact factor
 - d) Peer Review
- x. is a sign capable of distinguishing the good and services of one enterprises from those of other enterprises
 - a) Patent
 - b) Trademark
 - c) Copyright
 - d) Design

- Q-2 Answer the following question (Any Eight) (20)**
- Write short notes on design of the research project
 - Write short notes on objectives of research
 - Write short notes on criteria of good research
 - Explain in brief the main types of qualitative research
 - Write about criticism of qualitative research
 - What is a review article? What is the function of a review article?
 - What is citation analysis? Why should use citation analysis?
 - What is impact factor? Brief how it is calculated and used.
 - Define plagiarism and describe in brief.
 - What is industrial design? How industrial designs are protected?
- Q-3**
- Explain the different steps involved in a research process with the help of flow diagram (5)
 - Which points should be keep in mind while selecting the problem of research (5)
- OR**
- Explain the problems encountered by researchers in India (5)
- Q-4**
- Define hypothesis. Describe the main characteristics of a hypothesis. (5)
 - List important concept relating to research design and explain any three concepts (5)
- OR**
- Explain mean, mode, median and skewed distribution in details (5)
- Q-5**
- Explain the layout of the research report. List the types of the report indicating its important features (5)
 - What are the different elements of review article? Explain title and list of authors in details (5)
- OR**
- Write the ten simple rules for making good oral presentation. (5)
- Q-6**
- Explain intellectual property right (IPR). Brief about patent and trademarks. (5)
 - Discuss the ethical issues of plagiarism (5)
- OR**
- What is a copyright and related right? What rights do copyright and related rights provide? (5)