



DGG-003-012407

Seat No. \_\_\_\_\_

**M. Sc. (Sem. IV) (CBCS) Examination**

May/June – 2015

**BC.EBC - 4 : Research Methodology**

**Faculty Code : 003**

**Subject Code : 012407**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

**Q.1 Answer briefly Any Seven of the following questions.....[14]**

1. List different component chapters of a thesis writing
2. What do you understand by an impact factor of scientific journals?
3. Give an example of any one format for writing references in research paper.
4. What key aspects one should keep in mind in selecting samples from human population for research?
5. Write a brief note on variables
6. Write uses of Microsoft power point?
7. Name softwares used to do statistical analysis of the data in research.
8. Define ANOVA
9. Describe briefly the null hypothesis with example.
10. Write importance of computer animation in teaching and research.

**Q.2 Answer Any Two of the following questions in detail.....[14]**

- a) Write different ways of doing literature survey and write its importance in research.
- b) Describe the experimental design to test the statement " People from Saurashtra region have high incidence of kidney stones due to high TDS content of drinking water".
- c) Discuss importance of randomization in research. Which are the different ways of avoiding bias?

**Q.3 a) Give a comparative account of research v/s review article. What is the importance of review article in research?.....[7]**

b) Write a short note on factorial experimental design and designing engineering .....[7]

**OR**

**Q.3 a) What kind of errors can occur in statistics? Distinguish different types of errors.....[7]**

b) Write the features and functions and applications of Microsoft Excel.....[7]

**Q.4 Answer Any Two of the following questions in detail.....[14]**

- a) List the search engines used for literature survey in life sciences /medicine and describe advanced search techniques with examples.
- b) Describe Hypothesis testing. When hypothesis becomes theory?
- c) Write a short note on ANOVA and its importance in statistical analysis of research data.

**Q.5 Answer Any Two of the following questions in detail.....[14]**

- a) Describe different types of charts and diagrams with their importance
  - b) List the different funding agencies for life science research in India. Give an overview of different Components of research proposal writing.
  - c) Discuss the terms Mean, SD, and SEM using suitable examples.
  - d) Describe double blind experiment. Write its importance in pharmaceutical drug testing.
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