STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI –600 086
(For candidates admitted from the academic year 2010 – 11)

SUBJECT CODE: BI/PE/RM43

M. Sc. DEGREE EXAMINATION, APRIL 2012
BIOINFORMATICS
FOURTH SEMESTER

COURSE : ELECTIVE
PAPER : RESEARCH METHODOLOGY AND SCIENTIFIC COMMUNICATION
TIME : 3 HOURS   **Max. Marks: 100**

SECTION – A

I   Choose the correct answer   **(8x1=8 marks)**

1. Which method of sampling is least likely to produce bias?
    a) Opportunity sampling   b) Random sampling
    c) Stratified sampling   d) Quasi-random sampling

2. Which one of the following is not an assumption of science?

    a) There are reoccurring patterns in the world

    b) Events happen because of preceding causes

    c) We can discover solutions to problems of interest

    d) Theoretical explanations must agree with practical occurrences

3. The statement of purpose in a research study should:

    a) Identify the design of the study

    b) Identify the intent or objective of the study
    c) Specify the type of people to be used in the study
    d) Describe the study

4. The science of arranging events in their order of occurrence in time is known as
    _____

    (a) Chronology
    (b) Dendrochronology
    (c) Horology
    (d) Timeline study

5. When more than attributes, e.g., nationality, age and religion, are used for classification, then it is called as _____ classification.

   a. Simple
   b. Quantitative
   c. Manifold
   d. Spatial

6. An important practical issue to consider when designing a research project is:
   a) Which theoretical perspective you find most interesting
   b) Whether or not you have the right guidance for this research
   c) How much time, money and resource you have to conduct the research
   d) Where you have to present the work

7. Impact factor is a measure of:
   a) A good qualitative problem
   b) the reach of the article
   c) quality of the methods used
   d) The relationship between variables that the researcher expects to find

8. According to your text, which of the following is not a source of research ideas?
   a) Everyday life
   b) Text book information
   c) Past research
   d) both a and c

II Define the following :   **(6x2 =12marks)**

9. Data Classification
10. Citation index
11. MLA and APA format
12. Research Technique
13. Types of research Process
14. Patents

SECTION – B   **(4x10=40 marks)**

Answer any FOUR questions.

15. Explain the format of presentation of results, tabulations and figures.

16. Discuss the main points involved in writing a thesis or dissertation.

17. Explain the research guidelines in paper critiquing.

18. Discuss the various means of electronic sources of data and what the measures are to ensure the quality of information with CARS checklist?

19. Write a note on the importance and care to be taken for bibliography.

20. Discuss the action plan and pilot study undertaking a research project

21. Enumerate the importance of electronic sources of data.

SECTION – C   **(2x20=40 marks)**

Answer any TWO questions

22. Elaborate the protocol while writing a research grant support from an agency.

23. Discuss the collection and classification of data.

24. Define IPR and discuss the status of basmati and neem.

25. What is literature review? How is it done scientifically and at what stage of research?

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