

M. Sc. DEGREE EXAMINATION, APRIL 2011
BIOINFORMATICS
FOURTH SEMESTER

COURSE : MAJOR – CORE TIME : 15min.
PAPER : RESEARCH METHODOLOGY Marks : 15

SECTION – A

I. Choose the correct answer (7x1=7 marks)

- Which method of sampling is least likely to produce bias?
a) Opportunity sampling b) Random sampling c) Stratified sampling
d) Quasi-random sampling
- 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
- The qualitative research strategy places a value on
a) Using numbers, measurements and statistical techniques
b) Generating theories through inductive research about social meanings
c) Conducting research that is of a very high quality
d) All of the above
- 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
- A qualitative research question:
a) Asks a question about some process, or phenomenon to be explored
b) Is generally an open-ended question
c) Both a and b are correct
d) None of the above
- 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

7. 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

II. Define the following:

(4x2= 8 marks)

8. Pie diagram

9. APS style of formatting

10. Key words

11. Citation index

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI –600 086
(For candidates admitted from the academic year 2008 – 09 & thereafter)**

SUBJECT CODE: BI/PC/RM42

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**TIME: 1 hrs. 15 min.
Marks: 35**

SECTION – B

(4x5=20 marks)

**ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS IN ABOUT 100 WORDS
EACH**

1. Describe the different formats for writing scientific articles
2. What is the role of an ethics committee in science research?
3. Is theory and hypothesis important in doing research? Justify
4. Write about the importance of literature review in research.
5. What is paper critiquing and what are its uses?
6. Briefly enumerate the different styles of graphical representation of data.

SECTION – C

(1x15=15 marks)

ANSWER ANY ONE QUESTION NOT EXCEEDING 800 WORDS

7. Define data collection and the various classifications of data.
8. Elaborate the protocol while writing a research grant support from an agency.
