

(6 Pages)

Reg. No. :

Code No. : 6396

Sub. Code : PCSM 34

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2021

Third Semester

Computer Science — Core

RESEARCH METHODOLOGY

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — ($10 \times 1 = 10$ marks)

Answer ALL questions.

Choose the correct answers :

1. Research is
 - (a) Searching again and again
 - (b) Finding solution to any problem
 - (c) Working in a scientific way to search for truth of any problem
 - (d) Collecting data and analyze

6. Which one is a formal experimental design?
(a) Control design (b) Randomized design
(c) Functional design (d) Factorial design
7. Analysis of variance is a statistical method of comparing the ————— of several populations.
(a) Standard deviations
(b) Variances
(c) Means
(d) Proportions
8. ————— is the data, which have already been collected and analysed by someone else.
(a) Primary data (b) Secondary data
(c) Information (d) Treatment
9. ————— refers to the task of drawing inferences from the collected facts after an analytical study.
(a) Interpretation (b) Classification
(c) Tabulation (d) Adjusting data
10. Which one is used to emphasize relative proportion or share of each category?
(a) bar chart (b) multiple bars
(c) line chart (d) pie chart

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 250 words.

11. (a) What is research? Write the objectives of research.

Or

- (b) Write down the criteria of good research.

12. (a) Explain the concept behind probability sampling.

Or

- (b) Write the basic principles of experimental designs.

13. (a) Explain the possible sources of error in measurements.

Or

- (b) What are secondary data? State their characteristics.

14. (a) Explain the various types of analysis.

Or

- (b) Write the steps for one observation per cell in two way ANOVA.

15. (a) What are the steps in development of algorithm?

Or

- (b) List the steps involved in writing report.

PART C — ($5 \times 8 = 40$ marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Describe the techniques involved defining a problem.

Or

- (b) Give an account on research process.

17. (a) Give an account on various research designs.

Or

- (b) What is a sample design? Explain the main steps of sample design.

18. (a) Explain the desirable qualities to judge the goodness of measurement scales.

Or

- (b) Discuss how data collection is performed with questionnaire.

19. (a) Discuss data preparation process in detail.

Or

(b) Explain the steps involved in one-way ANOVA.

20. (a) Explain the types of reports.

Or

(b) Describe the layout of research report in detail.
