

C 61791

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Name.....

Reg. No.....

FOURTH SEMESTER M.A. DEGREE EXAMINATION, JUNE 2019

(CUCSS—PG)

Economics

ECO 4C 27—RESEARCH METHODOLOGY AND COMPUTER APPLICATIONS

(2015 Admissions)

Time : Three Hours

Maximum : 36 Weightage

Part A

Answer all questions.

Each bunch of four questions carries a weightage of $\frac{1}{4}$.

Multiple Choices :

✓ 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) None of these.

✓ 2. What does the scientific method imply ?

- (a) Inductive reasoning.
- (b) Deductive reasoning
- (c) Both inductive and deductive reasoning.
- (d) None of the above.

✓ 3. Sampling results in to

- (a) Greater accuracy.
- (b) Reduced cost.
- (c) Control of extraneous variables.
- (d) High precision.

✓ 4. What are the main functions of analysis of data ?

- (a) Making the data meaningful.
- (b) Testing null hypotheses.
- (c) Acquiring meaningful results.
- (d) All of these.

Turn over

5. What is not essential about a research problem ?
- (a) It should be amenable to research.
 - (b) It should be significant.
 - (c) It should lead to new knowledge.
 - (d) It should lead to theory building.
6. Systematic sampling procedure is a kind of :
- (a) Purposive sampling.
 - (b) Quota sampling.
 - (c) Random sampling.
 - (d) Non-probability sampling.
7. Type I error means :
- (a) Incorrect acceptance of null hypothesis.
 - (b) Incorrect rejection of the null hypothesis.
 - (c) Correct rejection of null hypothesis.
 - (d) Correct acceptance of null hypothesis.
8. What is the modern method of acquiring knowledge ?
- (a) Authority.
 - (b) Personal experience.
 - (c) Scientific method.
 - (d) Expert opinion.
9. Mode is :
- (a) Most frequent value.
 - (b) Least frequent value.
 - (c) Middle most value.
 - (d) Centre of gravity.
10. In the given series 71, 72, 64, 68, 70, 76, 73, 75 the median is :
- (a) 71.
 - (b) 71.5.
 - (c) 72
 - (d) 72.5.
11. Sampling method is based on :
- (a) Inductive method.
 - (b) Deductive method.
 - (c) Analysis method.
 - (d) None of these.
12. In the process of conducting research, 'formulation of hypotheses' is followed by :
- (a) Statement of objectives.
 - (B) Analysis of data.
 - (C) Selection of research tools.
 - (D) Collection of data.

(12 × ¼ = 3 weightage)

Part B (Very Short Answer Questions)

Answer any five questions.

Each question carries a weightage of 1.

- ✓ 13. What is research ?
14. What is experimental research ?
- ✓ 15. What are the characteristics of a good research design ?
- ✓ 16. Differentiate pure and applied research.
17. What are the objectives of research ?
- ✓ 18. What is sampling ?
19. What do you mean by interdisciplinary research ?
- ✓ 20. What do you mean by null hypothesis ?

(5 × 1 = 5 weightage)

Part C (Short Answer Questions)

Answer any eight questions.

Each question carries a weightage of 2.

- ✓ 21. What are the difficulties in using scientific methods in social sciences ?
- ✓ 22. Explain the steps involved in the formulation of a research problem.
23. Explain the steps involved in the case study method.
- ✓ 24. What is hypothesis ? How can we check its truth ?
- ✓ 25. Calculate mean, median and mode of the following frequency distribution :
- | | | | | | | |
|-----------|---|--------|---------|---------|---------|---------|
| Class | : | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | 40 - 50 |
| Frequency | : | 12 | 8 | 15 | 10 | 5 |
- ✓ 26. What are bar diagrams ? How they are constructed ?
- ✓ 27. Define Median. How can it be computed in the case of grouped and ungrouped data ?
28. Explain the difference between experimental research and descriptive research.
- ✓ 29. Explain the procedure of calculating the Average annual growth rate and Compound annual growth rate
- ✓ 30. What is EXCEL ? Explain its uses in research work.

Turn over

✓ 31. Compute the standard deviation for the following data :

X : 0 - 5 5 - 10 10 - 15 15 - 20 20 - 25 25 - 30 30 - 35 35 - 40

F : 2 5 7 13 21 16 8 3

(8 × 2 = 16 weightage)

Part D (Essay Questions)

Answer any **three** questions.

Each question carries a weightage of 4.

- ✓ 32. Explain briefly the formal outline of a Research report.
33. What is Historical research ? Explain its characteristics, advantages and limitations.
- ✓ 34. Define sampling as a technique of data collection. What are the different types of sampling ?
- ✓ 35. Explain the methods of representing data graphically. What is the importance of graphic representation ?
36. A researcher collected the following data during the course of his study :

| <i>Dependent variable</i> | <i>Independent variable</i> | <i>Independent variable</i> |
|---------------------------|-----------------------------|-----------------------------|
| X_1 | X_2 | X_3 |
| $M_1 = 78$ | $M_2 = 73$ | $M_3 = 55$ |
| $\sigma_1 = 16$ | $\sigma_2 = 12$ | $\sigma_3 = 10$ |
| $\gamma_{12} = 0.70$ | $\gamma_{13} = 0.80$ | $\gamma_{23} = 0.50$ |

- (a) Set up the multiple regression equation for predicting the value of dependent variable for the given values of both the independent variables.
- (b) If $X_2 = 60$ and $X_3 = 40$ predict the values of X_1 .

(3 × 4 = 12 weightage)