

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 ¼.*

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 ?

 $(5 \times 1 = 5 \text{ weightage})$ **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)