## MA EDUCATION
### First Semester
### Methodology of Educational Research and Statistics
### (MAE- 03)

**Duration: 3Hrs.**

**Full Marks: 70**

Part-A (Objective) =20
Part-B (Descriptive)=50

### (PART-B: Descriptive)

**Duration: 2 hrs. 40 mins.**

**Marks: 50**

**1. Answer *any five* out of the following questions:**

**2×5=10**

*a)* What do you mean by Educational Research?

*b)* Give the etymological meaning of Hypothesis.

*c)* Mention the various methods of acquiring scientific knowledge.

*d)* Define Variable.

*e)* What are inferential statistics?

*f)* What is Null Hypothesis?

*g)* Define Standard Error of Mean.

**Write in brief *any five* out of the following questions:**

**3×5=15**

*a)* What is the value of Historical Research in Education?

*b)* Explain Systematic sampling as a variation of the simple random sampling.

*c)* Give the characteristics of a good questionnaire.

*d)* Discuss the basic principles of Experimental Design used in Research study.

*e)* Why is Hypothesis an important part of research activity?

*f)* What are the limitations of Educational Research?

*g)* Discuss about Survey as an important method of Descriptive Research.

**3. Answer *any five* out of the following questions:**                    5×5=25

*a)* What is Ex-Post Facto design? Discuss its weakness.

*b)* What is the criteria of usable hypothesis?

*c)* Explain how Interview can be used in data collection in Research.

*d)* Discuss the format presented in a Research proposal.

*e)* 48 subjects are asked to express their attitude towards the proposition "Should the United States join an Organisation of Nations for the control of Atomic Power", by marking F (favourable), I (Indifferent) or U (Unfavourable). Of the members in the group, 24 marked F, 12 I and 12 U. Do these results indicate a significant trend of opinion?

*f)* The Mean on a test of abstract reasoning for 225 boys in the $10^{th}$ grade of city F was 27.26, with a S.D of 11.20. How dependable is this mean? Specifically how good an estimate is it of the mean which could be expected if all of the $10^{th}$ grade boys in city F were tested?

*g)* The opinions of 90 unmarried persons and 100 married persons were secured on an attitude scale. Do the data indicate a significant difference in opinion in terms of marital status of the individual? The data collected are

|            | AGREE | DISAGREE | NO OPINION |
|------------|-------|----------|------------|
| UNMARRIED  | 14    | 66       | 10         |
| MARRIED    | 27    | 66       | 7          |

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# MA EDUCATION
## First Semester
## Methodology of Educational Research and Statistics
## (MAE- 03)

*(The figures in the margin indicate full marks for the questions)*

**Duration: 20 minutes**

**Marks – 20**

### PART A- Objective Type

Choose the correct options from the following:

1 ×20=20

1. A systematic and scientific investigation of information and knowledge is known as:
   a) Enquiry
   b) Research
   c) Questioning
   d) Survey

2. Which one of the following is a basic criteria of research?
   a) Sample selection
   b) Randomisation
   c) Variables
   d) Control

3. An important method of acquiring scientific knowledge is:
   a) Tradition
   b) Fashion
   c) Reasoning
   d) Sampling

4. The meaning of the term " Variable" is something which:
   a) Varies
   b) Expands
   c) Retreats
   d) Repeats

5. The word "Hypothesis" is made up of two words :
   a) Hypo and Thesis
   b) Hypo and Thesia
   c) Hyper and Thesis
   d) Hyper and Thesia

6. ........................ is an important type of Descriptive method of Research:
   a) Survey
   b) Experiment
   c) Case study
   d) Historical study

7. The blueprint of the detailed procedures of testing the hypothesis and analysing the obtained data:
   a) Research Design
   b) Research Proposal
   c) Research Report
   d) Research Frame

8. The process of collection of sample from a given population:
   a) Randomisation
   b) Control
   c) Sampling
   d) Interview

9. Interview is a ............ way method which permits exchange of ideas and information:
   a) Two
   b) Three
   c) Four
   d) Five

10. The two types of data in Research are:
    a) Qualitative and Quantitative
    b) Discrete and Concrete
    c) Qualitative and Discrete
    d) Quantitative and Concrete

11. Which of the following tests the significance of the sample mean against the mean of the entire population:
   a) Chi-square
   b) T-test
   c) ANOVA
   d) Regression and Prediction

12. What represents a measure of the deviation of the sample mean from the parameter:
   a) Sampling error
   b) Standard error
   c) Error variance
   d) Deviation error

13. Alternative hypothesis indicates no relationship between the two variables:
   a) Agree
   b) Disagree
   c) Satisfactory
   d) No opinion

14. Which of the following type of sampling is used in large scale surveys:
   a) Stratified sampling
   b) Cluster sampling
   c) Multi-stage sampling
   d) Quota sampling

15. Probability Sampling is also known as:
   a) Random selection
   b) Chunk sampling
   c) Snow ball sampling
   d) Judgemental sampling

16. Non-Parametric Tests are applicable in the testing of significance of:
   a) Population
   b) Sample
   c) Both of the above
   d) None of the above

17. Two-tailed tests are ........................directional:
   a) 1
   b) 2
   c) 3
   d) 4

18. The type of error where we may accept a hypothesis which should otherwise have been rejected:
   a) Type I
   b) Type II
   c) Standard Error of Mean
   d) Standard Error of Median

19. Non-Probability Sampling do not follow the theory of .............................. in the choice of elements from the population:
   a) Probability
   b) Non-Probability
   c) Generalisation
   d) Randomisation

20. ..........................variables refer to those characteristics of the subjects which are likely to produce changes in the behavioural measures:
   a) Task
   b) Environment
   c) Subject
   d) Concrete

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