

M.Ed. Two year Programme

Third Semester Final Exam Papers

January 2017.

**NAME :** Course 4(b): Methodology of Research in Education

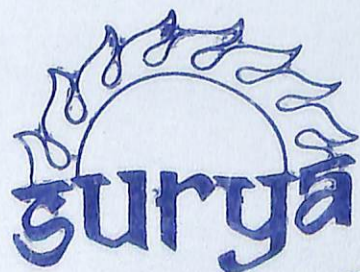
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**ST. ANN'S COLLEGE OF EDUCATION, MANGALORE.  
(AUTONOMOUS)**

**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**

**Third Semester Examination – January 2017  
(Semester Scheme)**

**Course 4(b) : METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time : 3 Hours

Max. Marks : 70

**Instructions : There are two sections in the question paper. Both the sections are compulsory.**

**Section A**

**Note : Answer the following questions in about three pages each.**

- 1 a) i) Explain with an example Factorial Design with two factors.  
ii) Discuss the threats to External Validity of Experimental Research. (5+5)

**OR**

- b) i) Explain the nature and steps of Historical Research.  
ii) Describe the characteristics and steps of Grounded Theory Method of Qualitative Research. (5+5)

- 2 a) i) Explain the concept and reasons for Skewness and Kurtosis in a distribution.  
ii) Given a distribution of scores of 600 students with a mean of 60 and Standard Deviation 6 assuming normality find out.  
(a) The limits which will include the middle 24% of the distribution.  
(b) The number of students who get scores between 45 and 70. (4+6)

**OR**

- b) i) Explain the concept of Regression and give the simple linear equation in standard score form and raw score form.  
ii) Calculate Product Moment Correlation Coefficient for the following data. (4+6)

Subjects	Teaching Aptitude	Teaching Skills
A	80	80
B	95	85
C	100	90
D	85	70
E	70	65
F	80	75

- 3 a) i) Describe one-tail and two-tail Test of Significance.  
ii) A test on Emotional Intelligence was administered to boys and girls of standard VIII and the data is given below. (4+6)

Students	N	Mean	SD
Boys	150	90	6.0
Girls	100	85	4.0

Frame an appropriate hypothesis and test at 0.05 level of significance.

**OR**

**Contd...2.**

- b) i) Explain Type I and Type II errors in testing the Hypothesis.  
 ii) Scores obtained by three randomly selected experimental groups of an experimental study involving three methods of teaching are given below .  
 State whether the teaching methods differ significantly at 5% level. (4+6)

A Discovery Method	B Demonstration Method	C Lecture- discussion Method
15	20	10
10	15	15
12	22	12
20	15	10
15	20	14

- 4 a) i) Explain the assumptions, features and uses of Mann Whitney U test.  
 ii) Illustrate the style of writing any six types of reference work in APA style. (4+6)  
**OR**  
 b) i) Explain the procedure involved in analyzing Qualitative data.  
 ii) Discuss the criteria for Evaluation of a Research Report. (6+4)

**Section B**

**Note : Answer any six of the following questions in about a page each. (6x5=30)**

- 5 a) Explain the methods of controlling of variables used in Experimental Research.  
 b) Explain the steps of conducting Correlational Research.  
 c) Give the concept and applications of Biserial and Point Biserial Correlation.  
 d) Clarify the meaning of Confidence Limits, Degrees of Freedom and compute 0.95 Confidence Limits of population mean ( $M_{POP}$ ) for the following data.

N	Mean	SD
50	40	5.5

- e) Explain the general format of a Research Report.  
 f) For the following data test the independence of Attitude and Achievement.

Attitude → Achievement ↓	Favourable	Neutral	Unfavourable
Above Average	10	12	15
Average	11	20	10
Below Average	15	14	18

- g) Explain the format of Research Synopsis.  
 h) Explain the concept and uses of Scheffe's test.

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**ST. ANN'S COLLEGE OF EDUCATION, MANGALORE.**  
**(AUTONOMOUS)**  
**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**  
**Third Semester Examination – January 2017**  
**(Semester Scheme)**

**Course 4(b) : METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time : 3 Hours

Max. Marks : 70

**Instructions : There are two sections in the question paper. Both the sections are compulsory.**

**Section A**

**Note : Answer the following questions in about three pages each.**

- 1 a) i) Explain with an example Factorial Design with two factors.  
ii) Discuss the threats to External Validity of Experimental Research. (5+5)

**OR**

- b) i) Explain the nature and steps of Historical Research.  
ii) Describe the characteristics and steps of Grounded Theory Method of Qualitative Research. (5+5)

- 2 a) i) Explain the concept and reasons for Skewness and Kurtosis in a distribution.  
ii) Given a distribution of scores of 600 students with a mean of 60 and Standard Deviation 6 assuming normality find out.  
(a) The limits which will include the middle 24% of the distribution.  
(b) The number of students who get scores between 45 and 70. (4+6)

**OR**

- b) i) Explain the concept of Regression and give the simple linear equation in standard score form and raw score form.  
ii) Calculate Product Moment Correlation Coefficient for the following data. (4+6)

Subjects	Teaching Aptitude	Teaching Skills
A	80	80
B	95	85
C	100	90
D	85	70
E	70	65
F	80	75

- 3 a) i) Describe one-tail and two-tail Test of Significance.  
ii) A test on Emotional Intelligence was administered to boys and girls of standard VIII and the data is given below. (4+6)

Students	N	Mean	SD
Boys	150	90	6.0
Girls	100	85	4.0

Frame an appropriate hypothesis and test at 0.05 level of significance.

**OR**

**Contd...2.**

- b) i) Explain Type I and Type II errors in testing the Hypothesis.
- ii) Scores obtained by three randomly selected experimental groups of an experimental study involving three methods of teaching are given below .  
State whether the teaching methods differ significantly at 5% level. (4+6)

A Discovery Method	B Demonstration Method	C Lecture- discussion Method
15	20	10
10	15	15
12	22	12
20	15	10
15	20	14

- 4 a) i) Explain the assumptions, features and uses of Mann Whitney U test.
  - ii) Illustrate the style of writing any six types of reference work in APA style. (4+6)
- OR**
- b) i) Explain the procedure involved in analyzing Qualitative data.
  - ii) Discuss the criteria for Evaluation of a Research Report. (6+4)

**Section B**

**Note : Answer any six of the following questions in about a page each. (6x5=30)**

- 5 a) Explain the methods of controlling of variables used in Experimental Research.
- b) Explain the steps of conducting Correlational Research.
- c) Give the concept and applications of Biserial and Point Biserial Correlation.
- d) Clarify the meaning of Confidence Limits, Degrees of Freedom and compute 0.95 Confidence Limits of population mean ( $M_{POP}$ ) for the following data.

N	Mean	SD
50	40	5.5

- e) Explain the general format of a Research Report.
- f) For the following data test the independence of Attitude and Achievement.

Attitude →  Achievement ↓	Favourable	Neutral	Unfavourable
	Above Average	10	12
Average	11	20	10
Below Average	15	14	18

- g) Explain the format of Research Synopsis.
- h) Explain the concept and uses of Scheffe's test.

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**ST. ANN'S COLLEGE OF EDUCATION, MANGALURU.**  
**(AUTONOMOUS)**  
**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**  
**Third Semester Examination – January 2018**  
**(Semester Scheme)**

**MEH504 : METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time : 3 Hours

Max. Marks : 70

**Instructions : There are two sections in the question paper. Both the sections are compulsory.**

**ಸೂಚನೆ : ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯಲ್ಲಿ ಎರಡು ವಿಭಾಗಗಳಿವೆ. ಎರಡೂ ವಿಭಾಗಗಳೂ ಕಡ್ಡಾಯವಾಗಿವೆ.**

**Section A / ವಿಭಾಗ ಎ**

**Note : Answer the following questions in about three pages each.**

**ಸೂಚನೆ : ಈ ಕೆಳಗಿನ ಪ್ರಶ್ನೆಗಳಿಗೆ ತಲಾ ಮೂರು ಪುಟಗಳಷ್ಟು ಉತ್ತರಿಸಿ.**

- 1 a) i) Explain Solomon four group design with an example.  
ii) Describe any two methods of controlling of variables used in experimental research.  
i) ಸೋಲೋಮನ್ ನಾಲ್ಕು ಗುಂಪುಗಳ ವಿನ್ಯಾಸವನ್ನು ಒಂದು ಉದಾಹರಣೆಯೊಂದಿಗೆ ವಿವರಿಸಿ.  
ii) ಪ್ರಾಯೋಗಿಕ ಸಂಶೋಧನೆಯಲ್ಲಿ ಚಲಕಗಳನ್ನು ನಿಯಂತ್ರಿಸುವ ಯಾವುದಾದರೂ ಎರಡು ವಿಧಾನಗಳನ್ನು ವರ್ಣಿಸಿ.  
(6+4)

**OR/ಅಥವಾ**

- b) i) Explain the nature and steps of historical research method.  
ii) Describe any two types of descriptive research.  
i) ಐತಿಹಾಸಿಕ ಸಂಶೋಧನೆಯ ಸ್ವಭಾವ ಹಾಗೂ ಹಂತಗಳನ್ನು ವಿವರಿಸಿ.  
ii) ವಿವರಣಾತ್ಮಕ ಸಂಶೋಧನಾ ವಿಧಾನದ ಯಾವುದಾದರೂ ಎರಡು ವಿಧಾನಗಳನ್ನು ವರ್ಣಿಸಿ.  
(5+5)

- 2 a) i) Explain the concept and reasons for skewness and kurtosis in a distribution.  
ii) Given a distribution of scores of 500 students with a mean of 60 and Standard Deviation 5, assuming normality find out.  
(a) The number of students getting the scores between 45 and 70.  
(b) The limits which will include highest 15% and lowest 20% of the distribution.  
i) ವಿತರಣೆಗಳಲ್ಲಿ 'ವಿಷಮತೆ' ಹಾಗೂ 'ಶೃಂಗತೆ' ಯ ಪರಿಕಲ್ಪನೆ ಹಾಗೂ ಅವುಗಳು ಉಂಟಾಗಲು ಕಾರಣಗಳನ್ನು ವಿವರಿಸಿ.  
ii) ಸರಾಸರಿ 60 ಹಾಗೂ ಮಾನಕ ವಿಚಲನೆ 5 ಇರುವ 500 ವಿದ್ಯಾರ್ಥಿಗಳ ಅಂಕ ವಿತರಣೆ ಕೊಟ್ಟಾಗ ಸಾಮಾನ್ಯ ಸಂಭಾವ್ಯತೆಯನ್ನು ಗಮನಿಸಿಕೊಂಡು,  
(a) ಅಂಕ 45 ಹಾಗೂ 70 ರ ನಡುವೆ ವಿದ್ಯಾರ್ಥಿಗಳ ಸಂಖ್ಯೆಯನ್ನು ಕಂಡು ಹಿಡಿಯಿರಿ.  
(b) ಗರಿಷ್ಠ 15% ಹಾಗೂ ಕನಿಷ್ಠ 20% ಅಂಕಗಳನ್ನೊಳಗೊಂಡ ಸೀಮಾ ಬಿಂದುಗಳನ್ನು ಕಂಡುಹಿಡಿಯಿರಿ. (4+6)

**OR/ಅಥವಾ**

**Contd...2.**

- b) i) Explain the concept and applications of biserial and point biserial correlation.  
 ii) Calculate the Product Moment Correlation Coefficient 'r' for the following data and interpret results.

Subjects	Mathematics Aptitude	Achievement in Mathematics
A	85	100
B	75	80
C	65	75
D	90	100
E	80	95
F	55	70

- i) 'ದ್ವಿಶ್ರೇಣಿ' ಹಾಗೂ 'ಬಿಂದು ದ್ವಿಶ್ರೇಣಿ' ಸಹಸಂಬಂಧಗಳ ಪರಿಕಲ್ಪನೆ ಹಾಗೂ ಅನ್ವಯಗಳನ್ನು ವಿವರಿಸಿ.  
 ii) ಕೆಳಗಿನ ದತ್ತಾಂಶಕ್ಕೆ ಪ್ರೊಡಕ್ಟ್ ಮೊಮೆಂಟ್ ಸಹಸಂಬಂಧ ಗುಣಾಂಕವನ್ನು ಲೆಕ್ಕಾಚಾರ ಮಾಡಿ ಹಾಗೂ ಫಲಿತಾಂಶವನ್ನು ತೀರ್ಮಾನಿಸಿ.

(4+6)

ವಿದ್ಯಾರ್ಥಿ	ಗಣಿತ ಮನೋವೃತ್ತಿ	ಗಣಿತದಲ್ಲಿನ ಸಾಧನೆ
A	85	100
B	75	80
C	65	75
D	90	100
E	80	95
F	55	70

- 3 a) i) Clarify the meaning of confidence limits and compute 0.95 and 0.99 confidence limits of population mean ( $M_{pop}$ ) for the following data.

N	Mean	SD
60	75	5.5

- ii) The data obtained on administering a creativity test to secondary school boys and girls is given below. Frame an appropriate hypothesis and test at 0.01 level.

Students	N	Mean	SD
Boys	200	80	6.5
Girls	150	75	4.5

- i) ವಿಶ್ವಾಸಾರ್ಹತೆಯ ಮಿತಿಗಳ ಪರಿಕಲ್ಪನೆಯನ್ನು ಸ್ಪಷ್ಟೀಕರಿಸಿ ಹಾಗೂ ಈ ಕೆಳಗಿನ ದತ್ತಾಂಶಕ್ಕೆ ಸಮಷ್ಟಿ ಮಧ್ಯಮಾಂಕದ 0.95 ಹಾಗೂ 0.99 ರ ವಿಶ್ವಾಸಾರ್ಹತಾ ಮಿತಿಗಳನ್ನು ಲೆಕ್ಕಾಚಾರ ಮಾಡಿ.

N	ಸರಾಸರಿ	ಮಾನಕ ವಿಚಲನೆ
60	75	5.5

- ii) ಪ್ರೌಢಶಾಲಾ ಹುಡುಗರಿಗೆ ಹಾಗೂ ಹುಡುಗಿಯರಿಗೆ ನೀಡಲಾದ ಸೃಜನಶೀಲತೆಯ ಪರೀಕ್ಷೆಯ ದತ್ತಾಂಶಗಳು ಈ ಕೆಳಗಿನಂತಿವೆ. ಇದಕ್ಕೊಂದು ಸೂಕ್ತ ಪ್ರಾಕಲ್ಪನೆ ರಚಿಸಿ 0.01 ಮಟ್ಟದಲ್ಲಿ ಪರೀಕ್ಷಿಸಿ.

(5+5)

ವಿದ್ಯಾರ್ಥಿಗಳು	N	Mean	SD
ಹುಡುಗರು	200	80	6.5
ಹುಡುಗಿಯರು	150	75	4.5

OR/ಅಥವಾ

Contd...3.

- b) i) Describe Type I and Type II errors in testing the Hypothesis.  
 ii) Scores obtained by three randomly selected experimental group of an experimental study involving three methods of teaching are given below .  
 Test whether teaching methods differ significantly at 0.01 level.

A Lecture demonstration	B Lecture discussion	C Lecture
20	25	10
15	15	15
22	20	20
15	20	18
20	22	20

- i) ಪ್ರಾಕಲ್ಪನೆಯನ್ನು ಪರೀಕ್ಷಿಸುವಲ್ಲಿ ಉಂಟಾಗುವ I ಹಾಗೂ II ಮಾದರಿಯ ದೋಷಗಳನ್ನು ವಿವರಿಸಿ.  
 ii) ಮೂರು ಬೋಧನಾ ವಿಧಾನಗಳನ್ನೊಳಗೊಂಡ ಒಂದು ಪ್ರಾಯೋಗಿಕ ಅಧ್ಯಯನದಲ್ಲಿ ಯಾದೃಚ್ಛಿಕವಾಗಿ ಆಯ್ಕೆ ಮಾಡಲಾದ ಮೂರು ಪ್ರಾಯೋಗಿಕ ಗುಂಪುಗಳ ಅಂಕಗಳನ್ನು ಈ ಕೆಳಗಿನ ಕೋಷ್ಟಕದಲ್ಲಿ ನೀಡಲಾಗಿದೆ. ಈ ಮೂರು ಬೋಧನಾ ವಿಧಾನಗಳ ವ್ಯತ್ಯಾಸ 0.01 ಮಟ್ಟದಲ್ಲಿ ಲಕ್ಷ್ಯಾರ್ಹವಾಗಿದೆಯೇ ಎಂಬುದನ್ನು ಪರೀಕ್ಷಿಸಿ.(4+6)

A ಉಪನ್ಯಾಸ ಪ್ರಾತಿಕ್ಷಿಕೆ	B ಉಪನ್ಯಾಸ ಚರ್ಚಾ ವಿಧಾನ	C ಉಪನ್ಯಾಸ
20	25	10
15	15	15
22	20	20
15	20	18
20	22	20

- 4 a) i) Explain the general principles and format of a research report.  
 ii) Explain the procedure involved in analyzing qualitative data.  
 i) ಸಂಶೋಧನಾ ವರದಿಯ ಸಾಮಾನ್ಯ ತತ್ವಗಳು ಹಾಗೂ ಚೌಕಟ್ಟನ್ನು ವಿವರಿಸಿ.  
 ii) ಗುಣಾತ್ಮಕ ದತ್ತಾಂಶವನ್ನು ವಿಶ್ಲೇಷಿಸುವ ವಿಧಾನವನ್ನು ವಿವರಿಸಿ. (5+5)

OR/ಅಥವಾ

- b) i) Illustrate the style of writing any six types of reference work in APA style:  
 ii) Explain the assumptions and uses of sign test.  
 i) ಯಾವುದಾದರೂ ಆರು ವಿಧದ ಪರಾಮರ್ಶೆಯ ಕೆಲಸವನ್ನು APA ಶೈಲಿಯಲ್ಲಿ ಬರೆಯುವ ಶೈಲಿಯನ್ನು ದೃಷ್ಟಾಂತಿಸಿ.  
 ii) ಸೈನ್ ಪರೀಕ್ಷೆಯ ಊಹೆಗಳು ಹಾಗೂ ಉಪಯೋಗಗಳನ್ನು ವಿವರಿಸಿ. (6+4)

## Section B/ ವಿಭಾಗ ಬಿ

5. Answer any Six of the following questions in about a page each. 6 x 5=30

ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಆರು ಪ್ರಶ್ನೆಗಳಿಗೆ ತಲಾ ಒಂದು ಪುಟದಷ್ಟು ಉತ್ತರಿಸಿ.

- a) Discuss the threats to internal validity of experimental research.  
ಪ್ರಾಯೋಗಿಕಾ ಸಂಶೋಧನೆಯ ಆಂತರಿಕ ಸಮಂಜಸತೆಯ ಬೆದರಿಕೆಗಳನ್ನು ಚರ್ಚಿಸಿ.
- b) Discuss the characteristics of grounded theory method of qualitative research.  
ಗುಣಾತ್ಮಕ ಸಂಶೋಧನೆಯ ಸುಸ್ಥಾಪಿತ ಸಿದ್ಧಾಂತ ವಿಧದ ಗುಣಲಕ್ಷಣಗಳನ್ನು ಚರ್ಚಿಸಿ.
- c) Explain the concept of regression and give the regression equations with two variables.  
ಹಿಂಚಲನೆಯ ಪರಿಕಲ್ಪನೆಯನ್ನು ವಿವರಿಸಿ ಹಾಗೂ ಎರಡು ಚಲಕಗಳ ಹಿಂಚಲನೆಯ ಸಮೀಕರಣಗಳನ್ನು ನೀಡಿ.
- d) Explain one tail test and two tail test for 0.05 and 0.01 level of confidence.  
ಏಕಪುಚ್ಚ ಹಾಗೂ ದ್ವಿಪುಚ್ಚ ಪರೀಕ್ಷೆಗಳನ್ನು 0.05 ಹಾಗೂ 0.01 ಲಕ್ಷ್ಯಾರ್ಹ ಮಟ್ಟದಲ್ಲಿ ವಿವರಿಸಿ.
- e) Explain the meaning of sampling distribution and sampling error.  
ಪ್ರತಿಚಯನ ವಿತರಣೆ ಹಾಗೂ ಪ್ರತಿಚಯನ ದೋಷಗಳ ಅರ್ಥವನ್ನು ವಿವರಿಸಿ.
- f) Explain the concept and uses of Scheffe's test and Fischer's Protected 't'.  
ಶೆಪಿ, ಪರೀಕ್ಷೆ ಹಾಗೂ ಫಿಶರ್ಸ್ ಪ್ರೊಟೆಕ್ಟೆಡ್ 'ಟಿ' ಪರೀಕ್ಷೆಗಳ ಪರಿಕಲ್ಪನೆ ಹಾಗೂ ಉಪಯೋಗಗಳನ್ನು ವಿವರಿಸಿ.
- g) For the following data test the hypothesis that gender and attitude towards teaching are independent to each other at 0.05 level of significance.  
ಕೆಳಗಿನ ದತ್ತಾಂಶದಲ್ಲಿ ಲಿಂಗ ಮತ್ತು ಬೋಧನೆಯ ಬಗೆಗೆ ಇರುವ ಮನೋಧೋರಣೆಗಳು ಸ್ವತಂತ್ರವಾಗಿದೆ ಎಂಬ ಪ್ರಾಕಲ್ಪನೆಯನ್ನು 0.05 ಲಕ್ಷ್ಯಾರ್ಹ ಮಟ್ಟದಲ್ಲಿ ಪರೀಕ್ಷಿಸಿ.

Attitude towards → Teaching ಬೋಧನೆಯ ಮನೋಧೋರಣೆ	Favourable ಧನಾತ್ಮಕ	Neutral ತಟಸ್ಥ	Unfavourable ಋಣಾತ್ಮಕ
Gender ಲಿಂಗ ↓			
Male ಪುರುಷರು	20	20	10
Female ಸ್ತ್ರೀಯರು	30	5	15

- h) Explain the meaning and general format of a research 'synopsis'.  
ಸಂಶೋಧನೆಯ 'ಮುಖ್ಯಾಂಶ ಸೂಚಿ' ಯ ಅರ್ಥ ಹಾಗೂ ಅದನ್ನು ಬರೆಯುವ ಸಾಮಾನ್ಯ ಚೌಕಟ್ಟನ್ನು ವಿವರಿಸಿ.

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**ST. ANN'S COLLEGE OF EDUCATION, MANGALURU.**

**(AUTONOMOUS)**

**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**

**Third Semester Examination – January 2019**

**(Semester Scheme)**

**MEH504 : METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time : 3 Hours

Max. Marks : 70

**Instructions : There are two sections in the question paper. Both the sections are compulsory.**

**Section A**

**Note : Answer the following questions in about three pages each.**

- 1 a) i) Explain with an example factorial design with two factors.  
ii) Describe any two methods of controlling of variables used in experimental research. (6+4)

**OR**

- b) i) Explain the steps involved in the qualitative research process.  
ii) Discuss the characteristics of any two types of survey designs of educational research. (5+5)

- 2 a) i) Explain the concept and applications of Biserial, Point biserial and Multiple Correlation.  
ii) Explain the steps involved in the process of qualitative data analysis. (6+4)

**OR**

- b) i) Explain the concept of regression and give the simple linear equation in standard score form and raw score form.  
ii) Calculate the Product Moment Correlation Coefficient 'r' for the following data.

Subject	Scientific Attitude	Achievement in Science
A	85	90
B	95	80
C	70	75
D	90	95
E	80	95
F	65	70

(4+6)

- 3 a) i) Describe one-tail and two-tail tests for 0.05 and 0.01 level of significance.  
ii) The data obtained on administering a Teacher Accountability Tests to secondary school male and female teachers is given below. Frame an appropriate hypothesis and test at 0.01 level.

Teachers	N	Mean	SD
Male	200	70	5.5
Female	250	85	4.5

Contd...2.

OR

- b) i) List the assumptions and uses of ANOVA.  
 ii) Scores obtained by three randomly selected experimental group of an experimental study involving three methods of teaching are given below .  
 Test whether teaching methods differ significantly at 0.01 level.

IDEAL	KWL	5E
25	25	20
15	20	15
22	25	20
20	20	25
20	22	20

- 4 a) i) Explain the general principles and format of a research report.  
 ii) Illustrate the style of writing any five types of reference work in APA style. (5+5)

OR

- b) i) Explain the meaning and format of a research synopsis.  
 ii) Explain the concept and uses of Scheffe's test and Fisher's Protected 't'. (5+5)

## Section B

5. Answer any Six of the following questions in about a page each. 6 x 5=30

- a) Discuss the threats to internal validity of experimental research.  
 b) Discuss the characteristics of grounded theory method of qualitative research.  
 c) Discuss the importance of primary and secondary source of data in historical research.  
 d) Explain the terms 'sampling distribution' and 'sampling error'.  
 e) Clarify the meaning of confidence limits and compute 0.95 and 0.99 confidence limits of population mean ( $M_{pop}$ ) for the following data.

N	Mean	SD
80	60	5

- f) Explain the assumptions and uses of sign test.  
 g) Discuss the criteria for evaluation of a research report.  
 h) For the following data test the hypothesis that gender and attitude towards learning are independent to each other at 0.05 level of significance.

Attitude towards learning Gender	Favourable	Neutral	Unfavourable
Boys	25	20	5
Girls	30	10	10

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Reg. No.

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**ST. ANN'S COLLEGE OF EDUCATION, MANGALURU.**

**(AUTONOMOUS)**

**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**

**Third Semester Examination – December 2019**

**(Semester Scheme)**

**MEH504 : METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time : 3 Hours

Max. Marks : 70

**Instructions : There are two sections in the question paper. Both the sections are compulsory.**

**Section A**

**Note : Answer the following questions in about three pages each.**

- 1a) i) Explain with an example factorial design with two factors.  
ii) Discuss the threats to external validity of experimental research. (6+4)

**OR**

- b) i) Explain the steps in conducting correlational research.  
ii) Describe the steps involved in the qualitative research process. (5+5)

- 2 a) i) Explain the concept and applications of partial and multiple correlation.  
ii) Calculate the Product Moment Correlation Coefficient 'r' for the following data and interpret. (4+6)

Subject	Scientific Attitude	Achievement in Science
A	90	95
B	80	90
C	75	65
D	82	74
E	65	75
F	85	90

**OR**

- b) i) Explain the concept of regression and give the simple linear equation in standard score form and raw score form.  
ii) Explain the steps in the process of qualitative data analysis. (5+5)

- 3 a) i) Clarify the meaning of confidence limits and compute 0.95 and 0.99 confidence limits of population mean ( $M_{pop}$ ) for the following data.

N	Mean	SD
64	70	4

- ii) The data obtained on administering a problem solving ability test to secondary school boys and girls is given below. Frame an appropriate hypothesis and test at 0.01 level.

Students	N	Mean	SD
Boys	200	85	6
Girls	150	70	4.5

**Contd...2.**

OR

- b) i) Explain Type I and Type II errors in testing of hypothesis.  
 ii) The data obtained on administering a Teacher Efficacy scale to teachers of aided, unaided and government secondary schools is given below. Test whether the Teacher Efficacy of aided, unaided and government secondary school teachers differ significantly at 0.05 level.

TEACHER EFFICACY		
Aided	Unaided	Government
30	42	35
35	35	30
40	52	55
45	30	40
50	45	45

- 4 a) i) Explain the assumptions and uses of sign test.  
 ii) Illustrate the styles of writing any four types of reference work in APA style.(6+4)

OR

- b) i) Explain the general principles and format of a research report.  
 ii) Discuss the criteria for evaluating a research report. (5+5)

## Section B

5. Answer any Six of the following questions in about a page each. 6 x 5=30

- Discuss the characteristics of Case Study method of Qualitative Research.
- Describe any two methods of controlling of variables used in Experimental Research.
- Explain the nature and steps of Historical Research.
- Describe one-tail and two-tail test for 0.05 and 0.01 level of significance.
- Explain the term 'sampling distribution' and 'sampling error'.
- Explain the meaning and format of a Research Synopsis.
- Explain the concept and uses of Scheff's test and Fisher's Protected 't'.
- For the following data test the hypothesis Teacher Accountability and Gender are independent of each other at 0.05 level of significance.

Teacher Accountability →	High	Low
	Boys ↓	Girls ↓
Boys	20	10
Girls	25	5

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**ST. ANN'S COLLEGE OF EDUCATION, MANGALURU.**  
**(AUTONOMOUS)**  
**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**  
**Third Semester Examination - April 2021**  
**(Semester Scheme)**

**MEH504 : METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time : 3 Hours

Max. Marks : 70

**Instructions : There are two sections in the question paper. Both the sections are compulsory.**

**Section A**

**Note : Answer the following questions in about three pages each.**

- 1 a) i) Explain with an example Solomon Four Group Experimental design.  
ii) Describe any two methods of controlling variables in an experimental research. (6+4)

**OR**

- b) i) Describe the steps involved in the qualitative research process.  
ii) Discuss the sources of data for historical research and external and internal criticism of data. (5+5)
- 2 a) i) Explain the concept of regression and give the simple linear equation in standard score form and raw score form.  
ii) Calculate the Product Moment Correlation Coefficient 'r' for the following data and interpret. (5+5)

Subject	Mathematics Attitude	Achievement in Mathematics
A	15	20
B	10	15
C	25	25
D	20	20
E	15	22

**OR**

- b) i) Explain the Concepts, 'Biserial, Point Biserial, Partial and Multiple correlations'.  
ii) Describe the steps involved in the qualitative data analysis. (5+5)
- 3 a) i) Describe one-tail and two-tail tests for 0.05 and 0.01 level of significance.  
ii) The data obtained on administering an emotional intelligence test to rural and urban secondary school students is given below. Frame an appropriate hypothesis and test at 0.01 level. (4+6)

Students	N	Mean	SD
Rural	200	95	6
Urban	150	80	5.5

**Contd...2.**

OR

b) i) Clarify the meaning of ‘confidence limits’ and compute 0.95 and 0.99 confidence limits of population mean ( $M_{pop}$ ) for the following data.

N	Mean	SD
200	85	5

ii) The data obtained on administering a scale on Teacher Accountability is given below. Test whether the Teacher Accountability of aided, unaided and government school teachers differ significantly at 0.05 level. (4+6)

Teacher Accountability		
Aided	Unaided	Government
40	35	45
30	25	30
25	30	40
40	45	45
35	20	40

4 a) i) Explain the uses of Sign Test and Mann Whitney U Test.

ii) Illustrate the styles of writing any four types of reference work in APA style. (5+5)

OR

b) i) Explain the meaning and format of a research synopsis.

ii) Discuss the criteria for evaluating a research report. (5+5)

**Section B**

5. Answer any Six of the following questions in about a page each. 6 x 5=30

- a) Discuss the characteristics of Grounded Theory method of Qualitative Research.
- b) Discuss the threats to external validity to Experimental Research.
- c) Explain the key characteristics and use of survey research.
- d) Explain Type One and Type Two errors in testing hypothesis.
- e) Explain the term ‘sampling distribution’ and ‘sampling error’.
- f) Describe the general principles and format of a research report.
- g) For the following data test the hypothesis : Academic Stress and Gender are independent of each other at 0.05 level of significance.

Academic Stress →	High	Low
	Gender ↓	
Boys	30	20
Girls	40	10

h) Explain the concept and uses of Scheff’s test and Fisher’s Protected ‘t’.

**ST. ANN'S COLLEGE OF EDUCATION, MANGALURU.**  
**(AUTONOMOUS)**  
**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**  
**Third Semester Examination – May 2022**  
**(Semester Scheme)**

**MEH504 : METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time : 3 Hours

Max. Marks : 70

**Instructions : There are two sections in the question paper. Both the sections are compulsory.**

**Section A**

**Note : Answer the following questions in about three pages each.**

- 1a) i) Explain the threats to internal validity of Experimental Research.  
 ii) Elucidate the criteria for evaluating a correlational study. (5+5)

**OR**

- b) i) Explain Solomon Four-group design with an illustration.  
 ii) Discuss the characteristics of grounded theory and case study. (5+5)

- 2 a) i) Justify the use of Linear Regression in predictive studies.  
 ii) Explain the concept and applications of partial and multiple correlations. (5+5)

**OR**

- b) i) Discuss the procedure of organizing and presenting qualitative data.  
 ii) Compute coefficient of correlation for the given data and interpret the results. (5+5)

Student Engagement	10	8	8	6	6	9
Learning Anxiety	12	10	9	10	14	8

- 3 a) i) Explain Type I and Type II error.  
 ii) Find if there is a significant difference in Social Maturity of urban and rural students from the given data at 0.05 level of significance. (4+6)

Students	X	N	$\sigma$
Rural	110	210	1.6
Urban	85	180	0.8

**OR**

- b) i) Explain the procedure of testing the hypothesis.  
 ii) From the given data find whether there is a significant difference at 0.05 level in the effectiveness of three different methods in promoting Learning Autonomy and interpret the results. (4+6)

Learning autonomy		
Method 1	Method 2	Method 3
20	30	10
10	25	25
25	25	35
15	20	30
10	30	20
12	30	30

**Contd...2.**

4 a) i) Explain the general principles of writing a Research Report.

ii) Write an abstract for a research study of your choice.

(5+5)

**OR**

b) i) Write the bibliography in APA style for any four types of reference work.

ii) Test the hypothesis, "Creative Thinking and Socio Economic Status are independent of each other at 0.05 level of significance" from the given data.

(4+6)

Socio- Economic Status →	<b>High</b>	<b>Low</b>
Creative Thinking ↓		
<b>High</b>	10	20
<b>Low</b>	5	12

### Section B

5. Answer any Six of the following questions in about a page each.

6 x 5=30

- Explain the methods of controlling variables in research.
- Elucidate the sources of data in historical research.
- Describe the types of survey designs.
- Explain the steps in conducting Correlational Research.
- Explain the concept and uses of Post-hoc Tests.
- Explain the concepts of sampling error and standard error.
- Explain the concept of 'Confidence limits' and compute 0.95 and 0.99 confidence limits of population mean ( $M_{Pop}$ ) for the following data.

<b>N</b>	<b>Mean</b>	<b>S.D</b>
60	70	5.5

h) Explain the criteria for evaluation of a Research Report.

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**ST. ANN'S COLLEGE OF EDUCATION, MANGALURU.  
(AUTONOMOUS)**

**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**

**Third Semester Examination – June 2023**

**(Semester Scheme)**

**MEH504 : METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time : 3 Hours

Max. Marks : 70

**Instructions : There are two sections in the question paper. Both the sections are compulsory.**

**Section A**

**Note : Answer the following questions in about four to five pages each. (4x15=60)**

1 a) i) Explain the concept and threats to external and internal validity of experimental research.

ii) Discuss any two true experimental designs with suitable example for each. (7+8)

**OR**

b) i) Explain the types of historical and survey research designs.

ii) Discuss the criteria for evaluation and ethical issues of survey research. (7+8)

2 a) i) Explain the concept and applications of any three measures of relationship.

ii) Calculate the product moment correlation co-efficient 'r' for the following data and interpret (8+7)

Individuals	A	B	C	D	E	F	G	H	I	J	K
Marks in History	80	45	55	56	58	60	65	68	70	75	85
Marks in Civics	82	86	50	48	60	62	64	65	70	74	90

**OR**

b) i) Explain the concept of regression and give the simple linear equation in standard score and raw score form.

ii) Discuss the procedure of organizing and presenting qualitative data. (6+9)

3 a) i) Explain the meaning of 'sampling distribution', 'Parameter and Statistics'.

ii) A science teacher wanted to know the relative effectiveness of lecture-cum-demonstration method (Group A) over lecture method (Group B). After teaching the two randomly selected groups an achievement test was administered to both the groups. The data collected is given below.

	<b>Group A Lecture-cum- demonstration method</b>	<b>Group B Lecture Method</b>
Mean	43	30
SD	8	7
N	65	65

Frame an appropriate hypothesis, test it and conclude about the relative effectiveness of the method used.

(6+9)

**Contd...2.**

OR

- b) i) Explain Type I and Type II errors with suitable examples.  
 ii) Compute 'F' ratio for testing the significance of the difference between three group means for the following data. Formulate an appropriate hypothesis and test it at 0.05 level of significance. (6+9)

Different Methods of Memorisation		
Group I	Group II	Group III
12	14	8
10	8	11
11	19	13
11	15	9
8	10	7
10	11	5
7	13	6
9	12	8
10	9	7
6	12	10

- 4 a) i) Explain the meaning, assumptions and uses of chi square test.  
 ii) For the following data, test the hypothesis that attitude towards teaching and gender are independent of each other at 0.05 level of significance. (6+9)

Attitude towards Teaching →	Favourable	Neutral	Unfavourable
Gender ↓			
MALE	20	20	10
FEMALE	15	20	15

OR

- b) i) Discuss the referencing and bibliography in APA style to be followed in a research report with examples.  
 ii) Explain the procedure of preparation of an abstract and executive summary. (7+8)

## Section B

Note : Answer any Two of the following questions in about a page each. (2x5=10)

5. a) Explain the characteristics of Grounded theory method of qualitative research.  
 b) Discuss the procedure of content analysis in analyzing qualitative data.  
 c) Explain one tail and two tail tests.  
 d) Discuss the general principles of a research report.

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**ST ANN'S COLLEGE OF EDUCATION  
(AUTONOMOUS), MANGALURU**

**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**

**Third Semester Examination – September 2024  
(Semester Scheme)**

**MEH504: METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time: 3 Hours

Max. Marks: 70

**Instructions: There are two sections in the question paper. Both the sections are compulsory.**

**Section A**

**Note: Answer the following questions in about three pages each.**

- 1 a) i) Explain the characteristics and variables in experimental research.  
ii) Discuss the characteristics of correlational at research and the criteria for evaluating a correlational study. (8+7)

**OR**

- b) i) Explain the types and sources of data in Historical research.  
ii) Discuss the characteristics and steps of a case study. (8+7)

- 2 a) i) Discuss the concept and applications of biserial, partial and multiple correlation.  
ii) Explain the concept of linear regression and its applications in prediction studies. (9+6)

**OR**

- b) i) Clarify the concept of product moment correlation and compute the product moment correlation for the following data and interpret the results.

Scientific Attitude	85	95	70	90	80	65
Achievement in Science	90	80	75	95	95	70

- ii) Explain the procedure of content analysis and coding in analysis of qualitative data. (9+6)

- 3 a) i) Describe one-tail and two-tail tests for 0.05 and 0.01 level of significance.  
ii) The data obtained on administering a problem solving ability test for arts and science group of higher secondary students is given below. Frame an appropriate hypothesis and test the significance at 0.05 level and interpret the results.

	N	Mean	S D
Arts	200	70	5.5
Science	175	80	4.5

(6+9)

**OR**

**Contd...2.**

- b) i) Explain the concept and uses of Scheffe’s test and Fisher’s Protected ‘t’ test.
- ii) The scores obtained by three randomly selected groups of an experimental study are given below. Formulate an appropriate hypothesis and test its significance at 0.05 level and interpret the results.

Problem Solving Method	Experiential Learning Method	Lecture Method
15	17	20
16	23	25
10	25	23
25	15	12
20	16	15

(6+9)

- 4 a) i) Explain the general principles and format of a research report.
- ii) Compare between references and bibliography and write any six types of references using APA 7<sup>th</sup> edition. (7+8)

**OR**

- b) i) Discuss the criteria for evaluation of a research report.
- ii) For the following data test the independence of scientific attitude and achievement.

Scientific Attitude →	Favourable	Neutral	Unfavourable
	Achievement ↓		
Above Average	10	12	15
Average	11	20	10
Below Average	15	14	18

(7+8)

**Section B**

**5. Answer any TWO of the following questions in about a page each. 2 x 5=10**

- a) Give the meaning of confidence limits and compute 0.95 and 0.99 confidence limits of population mean for the following data.

N	Mean	S D
50	40	5.5

- b) Explain the terms sampling distribution and sampling error.
- c) Discuss the procedure of visual data analysis in qualitative research.
- d) Explain Solomon four group design with a suitable illustration.

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**ST ANN'S COLLEGE OF EDUCATION  
(AUTONOMOUS), MANGALURU**

**M.Ed. Two Year Programme – Choice Based Credit System (CBCS)**

**Third Semester Examination – September/October 2025**

**(Semester Scheme)**

**MEH504: METHODOLOGY OF RESEARCH IN EDUCATION - II**

Time: 3 Hours

Max. Marks: 70

**Instructions: There are two sections in the question paper. Both the sections are compulsory.**

**Section A**

**Note: Answer the following questions in about FOUR to FIVE pages each.**

- 1 a) i) Explain the Solomon four group experimental design with an illustration.  
ii) Describe the concept and threats to external and internal validity of experimental research. (7+8)

**OR**

- b) i) Explain the key characteristics and steps of cross sectional design of survey research.  
ii) Discuss the steps involved in the qualitative research process. (7+8)

- 2 a) i) Clarify the concept of product moment correlation and compute the product moment correlation for the following data and interpret the results.

	A	B	C	D	E	F
Intelligence	30	25	32	40	45	35
Achievemnet Test	40	35	42	45	50	40

- ii) Explain the concept of linear progression and its applications in prediction studies. (7+8)

**OR**

- b) i) Explain the concepts of linear, biserial and multiple correlation and its applications in educational research.  
ii) Discuss the procedure of analysis of visual data in qualitative research. (9+6)

- 3 a) i) Explain the meaning of sampling error and standard error with appropriate illustrations.  
ii) Enumerate the assumptions of ANOVA. Compute F ratio for the following data and test whether the teaching methods differ significantly at 0.05 level.

Project Method	Experiential Learning	5E Model
15	17	20
16	23	20
10	22	25
25	15	23
20	16	12

(6+9)

**OR**

**Contd...2.**

- b) i) Explain type I and type II errors in testing hypothesis.
- ii) Discuss the procedure of testing the hypothesis. Calculate the significance of means for the following data of male and female primary school teachers for a test on teacher efficacy and test its significance at 0.05 level.

Teachers	N	Mean	S. D
Male	200	70	5.5
Female	250	85	4.5

(6+9)

- 4 a) i) Explain the need and criteria of evaluation of a research report.
- ii) Illustrate the styles of writing any six types of references using APA seventh edition.

(6+9)

OR

- b) i) Write an abstract for a research study of your choice.
- ii) Explain the meaning of chi-square test. For the following data, test the hypothesis that gender and attitude towards teaching are independent to each other at 0.05 level of significance.

Gender ↓	Attitude towards teaching →	
	Favourable	Unfavourable
Male	30	10
Female	25	15

(6+9)

**Section B**

5. Answer any TWO of the following questions in about a page each. 2 x 5=10

- a) Explain the variables in experimental research.
- b) Enumerate the characteristics of correlational research.
- c) Discuss the meaning and assumptions of Mann Whitney Test.
- d) Compute 0.95 and 0.99 confidence limits of population mean(Mpop) for the following data.

N	Mean	SD
80	65	5

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