

M.Ed. Two year Programme

III Semester Test Papers

November 2016-

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

**ADDRESS :** Education -II

**SUBJECT :** \_\_\_\_\_

**Phone No.:** \_\_\_\_\_ **Fax No. :** \_\_\_\_\_

**E-mail :** \_\_\_\_\_ **Website :** \_\_\_\_\_

**File No. :** \_\_\_\_\_ **From :** \_\_\_\_\_ **To :** \_\_\_\_\_

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

**M.Ed. Two Year Programme**

**Third Semester Test - November 2016**

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

Time : 3 Hours

Date : 30-11-2016

Max. Marks : 70

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

**Section A**

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

- 1a) i) Enumerate the characteristics of experimental research and explain pre-test post-test equivalent group design with an example.  
ii) Describe any two methods of controlling of variables used in experimental research. (5+5)

[or]

- b) i) Explain the nature and steps of historical research method.  
ii) Describe the characteristics and steps of case study method of qualitative research. (5+5)

- 2a) i) State the characteristics of normal probability curve (NPC).  
ii) Given a distribution of scores of 500 students with a mean of 60 and standard deviation 5, assuming normality find out :  
(a) the limits which will include highest 10% and lowest 20% of the distribution.  
(b) percentage of scores that fall between 50 and 65. (4+6)

[or]

- b) i) Give the concept and application of biserial and point biserial correlation.  
ii) Calculate the product moment correlation coefficient 'r' for the following data.

Subjects	Scientific Test Scores	Science Achievement Scores
A	80	60
B	95	70
C	100	85
D	85	65
E	70	50
F	80	68

(4+6)

- 3a) i) Describe one-tail and two-tail test of significance.  
ii) The data obtained on administering a problem solving ability test of arts and science group of higher secondary students is given below :

Subjects	N	Mean	SD
Arts	200	70	5.5
Science	175	80	4.5

Frame an appropriate hypothesis and test at 0.05 level.

(4+6)

[or]

- b) i) Explain Type I and Type II errors in testing the hypothesis.
- ii) The data obtained on administering an arithmetic reasoning test for 20 fourteen-year old boys and 25 fourteen-year old girls is given below :

Subjects	N	Mean	SD
Boys	20	55.5	8.5
Girls	25	60.7	6.5

Is the mean difference 5.2 in favour of the girls is significant at .05 level ? (4+6)

- 4a) i) Explain the general principles and format of a research report.
  - ii) Discuss the criteria for evaluation of a research report. (5+5)
- [or]
- b) i) Explain the assumptions and uses of sign test.
  - ii) Explain the procedure involved in analysing qualitative data. (4+6)

### Section B

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

- 5 a) Give the concept of internal and external validity and discuss the threats to internal validity.
- b) Explain the characteristics and steps of conducting correlational research.
- c) Explain the concept of regression and give the simple linear equations in standard score form and raw score form.
- 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
40	35	6.5

- e) Explain the meaning of sampling distribution and standard error.
- f) For the following data test the hypothesis that gender and attitude towards family planning are independent of each other.

Gender	For	Against	Neutral	Total
Male	45	30	17	92
Female	50	33	25	108
Total	95	63	42	200

- g) Illustrate the style of writing any five types of reference work in APA style.
- h) Explain the key characteristics and use of survey research.

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

M.Ed. Two Year Programme

Third Semester Test - December 2017

MEH504 : Methodology of Research in Education - II

Time : 3 Hours

Date : 13-12-2017

Max. Marks : 70

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

ಸೂಚನೆ : ಪ್ರಶ್ನೆಪತ್ರಿಕೆಯಲ್ಲಿ ಎರಡು ವಿಭಾಗಗಳಿವೆ. ಎಲ್ಲಾ ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸುವುದು ಕಡ್ಡಾಯ.

Section A/ವಿಭಾಗ ಎ

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

ಸೂಚನೆ : ಈ ಕೆಳಗಿನ ಪ್ರಶ್ನೆಗಳಿಗೆ ತಲಾ ಮೂರು ಪುಟಗಳಷ್ಟು ಉತ್ತರಿಸಿ.

1a) i) Explain with an example factorial design with Two factors.

ii) Discuss the methods of controlling variables in an experimental research.

i) ಎರಡು ಅಪವರ್ತನಗಳುಳ್ಳ ಅಪವರ್ತನ ಸಂಬಂಧಿ ವಿನ್ಯಾಸವನ್ನು ಒಂದು ಉದಾಹರಣೆಯೊಂದಿಗೆ ವಿವರಿಸಿ.

ii) ಪ್ರಾಯೋಗಿಕ ಸಂಶೋಧನೆಯಲ್ಲಿ ಚಲಕಗಳನ್ನು ನಿಯಂತ್ರಿಸುವ ವಿಧಾನಗಳನ್ನು ಚರ್ಚಿಸಿ. (6+4)

[or/ಅಥವಾ]

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.

i) ಗುಣಾತ್ಮಕ ಸಂಶೋಧನಾ ಪ್ರಕ್ರಿಯೆಯಲ್ಲಿ ಒಳಗೊಂಡಿರುವ ಹಂತಗಳನ್ನು ವಿವರಿಸಿ.

ii) ಶೈಕ್ಷಣಿಕ ಸಂಶೋಧನೆಯ ಯಾವುದಾದರೂ ಎರಡು ವಿಧದ ಸಮೀಕ್ಷಾ ವಿನ್ಯಾಸಗಳನ್ನು ಚರ್ಚಿಸಿ. (4+6)

2a) i) Explain the properties of Normal Probability Curve.

ii) Given a distribution of scores of 500 students with a mean of 50 and standard deviation 4 assuming normality find out :

(a) The limits which will include highest 25%.

(b) Number of students who get scores between 45 and 70.

i) ಸಾಮಾನ್ಯ ಸಂಭಾವ್ಯ ರೇಖೆಯ ಗುಣಲಕ್ಷಣಗಳನ್ನು ವಿವರಿಸಿ.

ii) ಸರಾಸರಿ 50 ಹಾಗೂ ಮಾನಕ ವಿಚಲನೆ 4 ಇರುವ 500 ವಿದ್ಯಾರ್ಥಿಗಳ ಅಂಕ ವಿತರಣೆಯ ಸಾಮಾನ್ಯ ಸಂಭಾವ್ಯತೆಯನ್ನು ಊಹಿಸಿಕೊಂಡು ಈ ಕೆಳಗಿನವುಗಳನ್ನು ಲೆಕ್ಕ ಮಾಡಿರಿ.

(a) ಗರಿಷ್ಠತಮ 25% ಅಂಕಗಳು ಇರುವ ಮಿತಿಗಳು

(b) 45 ಹಾಗೂ 70 ರ ನಡುವೆ ಅಂಕಗಳನ್ನು ಪಡೆದಿರುವ ವಿದ್ಯಾರ್ಥಿಗಳ ಸಂಖ್ಯೆ. (4+6)

[or/ಅಥವಾ]

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

ii) Calculate product moment correlation coefficient for the following grouped data.

Subjects	Teaching Aptitude	Teaching Skills
A	75	80
B	90	75
C	85	75
D	60	70
E	70	75
F	50	60

-: 2 :-

- i) ಹಿಂಚಲನೆಯ ಪರಿಕಲ್ಪನೆಯನ್ನು ವಿವರಿಸಿ ಹಾಗೂ ಹಿಂಚಲನೆಯ ಸರಳ ಸಮೀಕರಣವನ್ನು ಮಾನಕ ಅಂಕ ಹಾಗೂ ಕಚ್ಚಾ ಅಂಕಗಳ ರೂಪದಲ್ಲಿ ನೀಡಿ.
- ii) ಕೆಳಗಿನ ದತ್ತಾಂಶಕ್ಕೆ ಸಹ ಸಂಬಂಧ ಗುಣಾಂಕವನ್ನು ಪ್ರೊಡಕ್ಟ್ ಮೊಮೆಂಟ್ ವಿಧಾನದಿಂದ ಲೆಕ್ಕಾಚಾರ ಮಾಡಿ. (4+6)

ಅಭ್ಯರ್ಥಿಗಳು	ಬೋಧನಾ ಅಭಿರುಚಿ	ಬೋಧನಾ ಕೌಶಲ್ಯ
A	75	80
B	90	75
C	85	75
D	60	70
E	70	75
F	50	60

- 3a) i) Explain Type I and Type II errors in testing of hypothesis.  
ii) The data obtained on administering a problem solving ability test to arts and science students studying under an university is given below.

Students	N	Mean	SD
Arts	300	65	4
Science	200	75	5

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

- i) ಪ್ರಾಕಲ್ಪನೆಯನ್ನು ಪರೀಕ್ಷಿಸುವ ಮಾದರಿ-I ಹಾಗೂ ಮಾದರಿ-II ದೋಷಗಳನ್ನು ವಿವರಿಸಿ.  
ii) ಒಂದು ವಿಶ್ವವಿದ್ಯಾನಿಲಯದಲ್ಲಿ ಅಧ್ಯಯನ ಮಾಡುತ್ತಿರುವ ಕಲಾ ಹಾಗೂ ವಿಜ್ಞಾನ ವಿಭಾಗದ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ನೀಡಲಾದ ಸಮಸ್ಯಾ ಪರಿಹಾರ ಪರೀಕ್ಷೆಯ ದತ್ತಾಂಶಗಳು ಈ ಕೆಳಗಿನಂತಿವೆ.

ವಿದ್ಯಾರ್ಥಿಗಳು	ಸಂಖ್ಯೆ (N)	ಸರಾಸರಿ (Mean)	ಮಾನಕವಿಚಲನೆ (SD)
ಕಲಾ	300	65	4
ವಿಜ್ಞಾನ	200	75	5

ಸೂಕ್ತವಾದ ಪ್ರಾಕಲ್ಪನೆಯನ್ನು ರಚಿಸಿ 0.05 ಲಕ್ಷಾಂಕ ಮಟ್ಟದಲ್ಲಿ ಪ್ರಾಕಲ್ಪನೆಯನ್ನು ಪರೀಕ್ಷಿಸಿ. (4+6)

[or/ಅಥವಾ]

- b) i) Describe one-tail and two-tail tests of significance.  
ii) Scores obtained by the randomly selected groups of an experimental study are give below. Test whether the teaching methods differ significantly at 0.01 level.

IDEAL	5E	KWL
15	17	20
12	13	15
10	12	15
15	15	13
20	16	12

- i) ಏಕ ಪುಚ್ಚ ಹಾಗೂ ದ್ವಿಪುಚ್ಚ ಲಕ್ಷಾಂಕ ಪರೀಕ್ಷೆಗಳನ್ನು ವಿವರಿಸಿ.  
ii) ಒಂದು ಪ್ರಾಯೋಗಿಕ ಅಧ್ಯಯನದಲ್ಲಿ ಯಾದೃಚ್ಛಿಕವಾಗಿ ಆಯ್ಕೆ ಮಾಡಲಾದ ಮೂರು ಪ್ರಾಯೋಗಿಕ ಗುಂಪುಗಳ ಅಂಕಗಳನ್ನು ಈ ಕೆಳಗಿನ ಕೋಷ್ಟಕದಲ್ಲಿ ನೀಡಲಾಗಿದೆ. ಈ ಮೂರು ಬೋಧನಾ ವಿಧಾನಗಳ ವ್ಯತ್ಯಾಸ 0.01 ರ ಮಟ್ಟದಲ್ಲಿ ಲಕ್ಷಾಂಕವಾಗಿದೆಯೇ ಎಂದು ಪರೀಕ್ಷಿಸಿ. (4+6)

IDEAL	5E	KWL
15	17	20
12	13	15
10	12	15
15	15	13
20	16	12

- 4a) i) Explain the assumptions and uses of Mann Whitney test.  
ii) Explain the procedure involved in analyzing qualitative data.  
i) ಮ್ಯಾನ್ ವೈಟ್‌ನಿ ಪರೀಕ್ಷೆಯ ಉಪಯೋಗಗಳನ್ನು ವಿವರಿಸಿ.  
ii) ಗುಣಾತ್ಮಕ ದತ್ತಾಂಶವನ್ನು ವಿಶ್ಲೇಷಿಸುವಲ್ಲಿ ಒಳಗೊಂಡಿರುವ ವಿಧಾನವನ್ನು ವಿವರಿಸಿ. (4+6)  
[or/ಅಥವಾ]
- b) i) Explain the meaning and format of a research synopsis.  
ii) Discuss the criteria for evaluating a research report.  
i) 'ಮುಖ್ಯಾಂಶ ಸೂಚಿ' ಯ ಅರ್ಥ ಹಾಗೂ ಅದನ್ನು ಬರೆಯುವ ಸಾಮಾನ್ಯ ಸ್ವರೂಪವನ್ನು ವಿವರಿಸಿ.  
ii) ಸಂಶೋಧನಾ ವರದಿಯನ್ನು ಮೌಲ್ಯೀಕರಿಸುವ ಮಾನದಂಡಗಳನ್ನು ಚರ್ಚಿಸಿ. (5+5)

### Section B/ವಿಭಾಗ ಬಿ

Note : Answer any six of the following questions in about a page each. (6x5=30)  
ಸೂಚನೆ : ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಆರು ಪ್ರಶ್ನೆಗಳಿಗೆ ತಲಾ ಒಂದು ಪುಟದಷ್ಟು ಉತ್ತರಿಸಿ.

- 5 a) Explain the steps in conducting correlational research.  
ಸಹಸಂಬಂಧಿತ ಸಂಶೋಧನೆಯನ್ನು ಮಾಡುವ ಹಂತಗಳನ್ನು ವಿವರಿಸಿ.
- b) Discuss the threats to external validity of experimental research.  
ಪ್ರಾಯೋಗಿಕ ಸಂಶೋಧನೆಯ ಬಾಹ್ಯ ಸಮಂಜಸತೆಯ ತಡೆಗಳನ್ನು ಚರ್ಚಿಸಿ.
- c) Explain the concept and applications of biserial and point biserial correlation.  
'ದ್ವಿಶ್ರೇಣಿ' ಹಾಗೂ 'ಬಿಂದು ದ್ವಿಶ್ರೇಣಿ' ಸಹ ಸಂಬಂಧಗಳ ಪರಿಕಲ್ಪನೆ ಹಾಗೂ ಅನ್ವಯಗಳನ್ನು ವಿವರಿಸಿ.
- d) Explain the meaning of sampling distribution and sampling error.  
ಪ್ರತಿಚಯನ ವಿತರಣೆ ಹಾಗೂ ಪ್ರತಿಚಯನ ದೋಷಗಳ ಅರ್ಥವನ್ನು ವಿವರಿಸಿ.
- e) Explain the term 'levels of significance' and compute 0.95 and 0.99 confidence limits of  $M_{pop}$  for the following data.
- | N   | Mean | SD |
|-----|------|----|
| 400 | 80   | 6  |
- 'ಮಹತ್ವಪೂರ್ಣ ಮಟ್ಟಗಳು' ಈ ಪದವನ್ನು ವಿವರಿಸಿ ಹಾಗೂ ಈ ಕೆಳಗಿನ ದತ್ತಾಂಶಕ್ಕೆ ಸಮಷ್ಟಿ ಮಧ್ಯಮಾಂಕದ 0.95 ಹಾಗೂ 0.99 ವಿಶ್ವಾಸಾರ್ಹತಾ ಮಿತಿಗಳನ್ನು ಕಂಡು ಹಿಡಿಯಿರಿ.
- f) Explain the concept and uses of Scheffes Test and Fischer's Protected 't'.  
ಷೆಫೀಸ್ ಟೆಸ್ಟ್ ಹಾಗೂ ಫಿಶರ್ಸ್ ಪ್ರೊಟೆಕ್ಟೆಡ್ 'ಟಿ' ಪರೀಕ್ಷೆಗಳ ಪರಿಕಲ್ಪನೆ ಹಾಗೂ ಉಪಯೋಗಗಳನ್ನು ವಿವರಿಸಿ.
- g) Explain the style of writing any five types of reference work in APA style.  
ಯಾವುದಾದರೂ ಐದು ವಿಧದ ಪರಮರ್ಶೆಯ ಕೆಲಸವನ್ನು 'ಎಪಿಎ' ಶೈಲಿಯಲ್ಲಿ ಬರೆಯುವ ಶೈಲಿಯನ್ನು ದೃಷ್ಟಾಂತಿಸಿ.

- h) 100 girls and 100 boys studying P.G. Courses in an university were asked "Whether they prefer semester scheme or not?" The results are given below. Formulate an appropriate hypothesis and test its significance at 5% level.

	Preference of Semester Scheme	
	Yes	No
Boys	60	40
Girls	70	30

ವಿಶ್ವವಿದ್ಯಾನಿಲಯದ ಸ್ನಾತಕೋತ್ತರ ಪದವಿ ತರಗತಿಯಲ್ಲಿ ಕಲಿಯುತ್ತಿರುವ 100 ಹುಡುಗರು ಹಾಗೂ 100 ಹುಡುಗಿಯರಲ್ಲಿ 'ಸೆಮಿಸ್ಟರ್' ಪದ್ಧತಿಯನ್ನು ಅನುಮೋದಿಸುತ್ತೀರೋ ಇಲ್ಲವೋ ಎಂದು ಪ್ರಶ್ನಿಸಿದಾಗ ದೊರೆತ ಫಲಿತಾಂಶವನ್ನು ಈ ಕೆಳಗೆ ಕೊಡಲಾಗಿದೆ. ಈ ದತ್ತಾಂಶಕ್ಕೆ ಸೂಕ್ತ ಪ್ರಾಕಲ್ಪನೆಯನ್ನು ರಚಿಸಿ 5% ಮಟ್ಟದಲ್ಲಿ ಮಹತ್ವಪೂರ್ಣವಾಗಿದೆಯೇ ಎಂಬುದನ್ನು ಪರೀಕ್ಷಿಸಿ.

	ಸೆಮಿಸ್ಟರ್ ಪದ್ಧತಿಯ ಅನುಮೋದನೆ	
	ಹೌದು	ಇಲ್ಲ
ಹುಡುಗರು	60	40
ಹುಡುಗಿಯರು	70	30

\* \* \* \* \*

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

**M.Ed. Two Year Programme**

**Third Semester Test - December 2018**

**MEH504 : Methodology of Research in Education - II**

Time : 3 Hours

Date : 10-12-2018

Max. Marks : 70

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

**Section A**

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

- 1a) i) Explain with an example solomon four group design.  
ii) Discuss the threats to interval validity of experimental research. (6+4)  
[or]
- b) i) Explain the steps involved in the qualitative research.  
ii) Describe the nature and steps of historical research. (5+5)
- 2a) i) Explain the concept of Biserial, Point-biserial and multiple correlation and its applications.  
ii) Explain the steps involved in the process of qualitative data analysis. (6+4)  
[or]
- b) i) Explain the concept of regression and give simple linear equation in standard score form and raw score form.  
ii) Calculate product moment correlation coefficient for the following grouped data.

Subjects	Scores on Teaching Aptitude	Scores on Teaching Skills
A	80	85
B	85	75
C	90	80
D	75	70
E	70	65
F	60	50

(4+6)

- 3a) i) Explain Type I and Type II errors in testing of hypothesis.  
ii) The data obtained on administering a critical thinking skills test to arts and science students studying under an university is given below.

Students	N	Mean	SD
Arts	250	70	6
Science	150	80	5

Frame an appropriate hypothesis and test at 0.05 level of significance. (4+6)  
[or]

- b) i) Explain the terms sampling distribution and sampling errors.  
 ii) Scores obtained by three randomly selected groups of an experimental study are given below, test whether the teaching methods differ significantly at 0.01 level.

Demonstration Method	Discovery Method	Co-operative Learning Method
15	17	20
16	23	20
10	22	25
25	15	23
20	16	12

(4+6)

- 4a) i) Explain the assumptions and uses of Mann Whitney test.  
 ii) Discuss the criteria for evaluating a research report. (5+5)  
 [or]  
 b) i) Explain the meaning and format of a research synopsis.  
 ii) Illustrate the styles of writing any five types of reference work. (5+5)

### Section B

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

- 5 a) Explain the steps in conducting correlational research.  
 b) Discuss the methods of controlling variables in an experimental research.  
 c) Discuss the ethical issues in survey and correlational research.  
 d) Describe one-tail and two-tail tests for 0.05 and 0.01 levels of significance.  
 e) Explain the term 'levels of significance' and compute 0.95 and 0.99 confidence limits of  $M_{pop}$  for the following data.

N	Mean	SD
300	60	5

- f) Explain the concept and uses of Scheffes Test and Fischer's Protected 't'.  
 g) Explain the general principles and format of a research report.  
 h) For the following data test the hypothesis that attitude towards teaching and gender are independent of each other at 0.05 level of significance.

Attitude Towards Teaching → Gender ↓	Favourable	Neutral	Unfavourable
	Male	20	20
Female	15	20	15

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

**M.Ed. Two Year Programme**

**Third Semester Test - November 2019**

**MEH504 : Methodology of Research in Education - II**

Time : 3 Hours

Date : 20-11-2019

Max. Marks : 70

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

**Section A**

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

- 1a) i) Explain with an example solomon four group design.  
ii) Describe any two methods of controlling of variables used in experiential research. (5+5)

[or]

- b) i) Describe any two types of descriptive research.  
ii) Explain the steps involved in the qualitative research process. (5+5)

- 2a) i) Explain the concept of regression and give the simple linear equation in standard score form and raw score form.  
ii) Explain the steps involved in the process of qualitative data analysis. (4+6)

[or]

- b) i) Explain the concept and application Biserial and Point Biserial correlation.  
ii) Calculate product moment correlation coefficient for the following grouped data.

Subjects	Scores on Teaching Aptitude	Scores on Teaching Skills
A	85	75
B	80	85
C	60	50
D	90	80
E	75	70
F	65	70
G	55	72
H	64	78

(4+6)

- 3a) i) Describe one-tail and two-tail tests for 0.5 and 0.01 level of significance.  
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 of significance.

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

(4+6)

[or]

- b) i) Explain Type I and Type II errors in testing of hypothesis.  
ii) Scores obtained by three randomly selected groups of an experimental study are given below, test whether the teaching methods differ significantly at 0.01 level.

Demonstration Method	Problem Solving Method	Project Method
15	17	20
16	23	25
10	25	23
25	15	12
20	16	15

(4+6)

- 4a) i) Discuss the criteria for evaluation of a research report.  
ii) Explain the meaning and format of a research synopsis. (5+5)  
[or]  
b) i) Explain the general principles and format of a research report.  
ii) Illustrate the styles of writing any five types of reference work. (5+5)

### Section B

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

- 5 a) Discuss the threats to internal validity of an experimental research.  
b) Discuss the characteristics of case study 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
100	60	4

- f) Explain the concept and uses of Scheffe's test as a post-hoc test in research studies.  
g) Explain the assumptions and uses of a Man Whitney test.  
h) Explain the characteristics of cross sectional and longitudinal studies.

\* \* \* \* \*

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

**M.Ed. Two Year Programme**

**Third Semester Test - March 2021**

**MEH504 : Methodology of Research in Education - II**

Time : 3 Hours

Date : 03-03-2021

Max. Marks : 70

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

**Section A**

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

- 1a) i) Explain with an example Pre-test Post-test control group design. (6+4)  
ii) Discuss the threats to internal validity of experiential research. (6+4)  
[or]
- b) i) Explain the characteristics of longitudinal and cross sectional research studies. (5+5)  
ii) Explain the steps involved in the qualitative research process. (5+5)
- 2a) i) Explain the concepts partial and multiple correlation. (3+7)  
ii) Calculate product moment correlation coefficient for the following grouped data. (3+7)

Subjects	Scores Achievement Motivation	Scores on Academic Achievement
A	30	40
B	25	35
C	32	42
D	40	45
E	45	50
F	35	40

[or]

- b) i) Explain the concept of regression and give the simple linear equation in standard score form and raw score form. (5+5)  
ii) Explain the steps of qualitative data analysis. (5+5)
- 3a) i) Clarify the meaning of confidence limits and compute 0.95 and 0.01 confidence limits of population mean ( $M_{pop}$ ) for the following data.

N	Mean	SD
80	65	5

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

Students	N	Mean	SD
Boys	200	70	5
Girls	120	65	4

[or]

(4+6)

- b) i) Describe one-tail and two-tail test for 0.05 and 0.01 level of significance.  
ii) The data obtained on administering a student wellness scale to aided, unaided and government secondary schools is given below. Test whether the student well being of aided, unaided and government secondary school students differ significantly at 0.05 level. (4+6)

Aided	Unaided	Government
20	15	25
15	20	10
18	15	15
10	10	20
25	20	15

- 4a) i) Explain the general principles and format of a research report.  
ii) Discuss the criteria for evaluation of a research report. (5+5)  
[or]  
b) i) Explain the meaning and format of a research report.  
ii) Illustrate the styles of writing any five types of reference work. (5+5)

### Section B

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

- 5 a) Describe any two methods of controlling a variables used in experimental research.  
b) Discuss the characteristics of case study method of qualitative research.  
c) Discuss the characteristics and importance of primary and secondary source of data in historical research.  
d) Explain the terms 'sampling distribution' and 'sampling error'.  
e) Explain Type-I and Type-II error in testing hypothesis.  
f) For the following data test the hypothesis that gender and attitude towards teaching are independent to each other at 0.05 level of significance.

Attitude Towards Teaching →	Favourable	Unfavourable
Gender ↓		
Male	30	10
Female	25	15

- g) Explain the assumptions and uses of a Man Whitney U test.  
h) Explain the characteristics of descriptive research.

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

**M.Ed. Two Year Programme**

**Third Semester Test - April 2022**

**MEH504 : Methodology of Research in Education - II**

Time : 3 Hours

Date : 27-04-2022

Max. Marks : 70

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

**Section A**

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

1a) i) Explain the characteristics of correlational research and enumerate the criteria for evaluating a correlation study.

ii) Discuss any two experimental designs with appropriate illustration. (6+4)

[or]

b) i) Describe the threats to internal validity in experimental research.

ii) Discuss the characteristics of grounded theory research. (6+4)

2a) i) Describe the process of organizing and presenting qualitative data.

ii) Clarify the concepts of partial and multiple correlation and its application in research. (6+4)

[or]

b) i) Calculate the product moment correlation coefficient 'r' for the following data.

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

ii) Explain the concept of regression and its application in predictive studies. (6+4)

3a) i) Describe one tailed and two-tailed tests for 0.05 and 0.01 level of significance.

ii) The data obtained on administering a test on emotional intelligence to rural and urban students is given below :

	N	Mean	SD
Rural	250	70	6
Urban	150	80	5

Frame an appropriate hypothesis and test the significance at 0.01 level. (4+6)

[or]

b) i) Explain Type I and Type II errors in testing hypothesis.

ii) Describe 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

(4+6)

-: 2 :-

- 4a) i) Illustrate the style of writing any five types of references in APA style. (5+5)  
ii) Discuss the general principles and format of a research report. (5+5)  
[or]
- b) i) Explain the criteria for evaluation of research report. (5+5)  
ii) Describe the meaning, assumptions and uses of Mann Whitney test. (5+5)

### Section B

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

- 5 a) A mathematics teacher gave a test in multiplication to 30 students of his class. After a training in multiplication for a month, the achievement test was re-administered. Frame an appropriate hypothesis and find out if there is a significant difference between the scores ( $r = 0.82$ ).

	Initial test	Final test
<b>Mean</b>	70	67
<b>SD</b>	6	5.8

- b) Clarify the concepts of sampling error and standard error.  
c) Explain the characteristics and uses of survey research.  
d) Describe the methods of controlling variables in experimental research.  
e) Explain the process of external and internal criticism in historical research.  
f) Discuss the steps in the qualitative research process.  
g) Describe the steps of case study.  
h) The opinions of 90 boys and 100 girls were secured on an attitude scale. Do the data indicate that opinions expressed are independent among boys and girls.

	Agree	Disagree	Neutral	Total
<b>Boys</b>	14	66	10	90
<b>Girls</b>	27	66	7	100

\* \* \* \* \*

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

**M.Ed. Two Year Programme**

**Third Semester Test - May 2023**

**MEH504 : Methodology of Research in Education - II**

Time : 3 Hours

Date : 26-05-2023

Max. Marks : 70

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

**Section A**

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

- 1a) i) Explain the experimental designs with an illustration each.  
ii) Discuss the steps in the qualitative research process. (10+5)

[or]

- b) i) Explain the characteristics of survey research and the types of survey designs.  
ii) Enumerate the characteristics of correlational research. (10+5)

- 2a) i) Discuss the process of organizing and presenting qualitative data.  
ii) Clarify the concept of regression and its application in predictive studies. (10+5)

[or]

- b) i) Explain the concept and applications of product moment correlation and compute the correlation coefficient for the following data.

<b>Scores in English</b>	8	6	9	4	5	3	7	5	7	6
<b>Scores in Mathematics</b>	7	8	6	5	3	2	8	3	6	2

- ii) Explain the concepts of biserial and point biserial correlation with an illustration and write its applications to research. (10+5)

- 3a) i) Enumerate the assumptions of ANOVA. Test whether the teaching methods differ significantly at 0.01 level for the scores obtained by three randomly selected groups for an experimental study.

<b>Project Method</b>	<b>Experiential Learning</b>	<b>5E Model of Teaching</b>
15	17	20
16	23	20
10	22	25
25	15	23
20	16	12

- ii) Explain the terms sampling error and standard error. (10+5)

[or]

- b) i) Discuss the procedure of testing the hypothesis. Calculate the significance of means for the following data for a test on Teacher Efficacy to primary school teachers and test the significance at 0.05 level.

<b>Teachers</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Male	200	70	5.5
Female	250	85	4.5

- ii) Explain the types of errors in testing hypothesis. (10+5)

4a) i) Discuss the general principles and format of a research report and the criteria for its evaluation.

ii) Illustrate the styles of writing any six types of references. (9+6)

[or]

b) i) Explain the meaning and uses 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.

Attitude Towards Teaching →	Favourable	Unfavourable
Gender ↓		
Male	30	10
Female	25	15

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

(10+5)

### Section B

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

5 a) Explain the steps of grounded theory.

b) Discuss the variables in experimental research with appropriate illustrations.

c) 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	65	5

d) Explain the sources of data in historical research.

\* \* \* \* \*

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

**M.Ed. Two Year Programme**

**Third Semester Test - August 2024**

**MEH504 : Methodology of Research in Education - II**

Time : 3 Hours

Date : 21-08-2024

Max. Marks : 70

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

**Section A**

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

- 1a) i) Explain the characteristics and variables of experimental research.  
ii) Discuss the characteristics and uses of correlational research. (8+7)  
[or]  
b) i) Explain the concepts and threats to internal and external validity.  
ii) Explain the steps of grounded theory. (8+7)

- 2a) i) Explain the concepts of biserial and multiple correlation with its applications.  
ii) Describe the steps involved in qualitative data analysis. (6+9)

[or]

- b) i) Explain the concept of regression and its application in prediction studies.  
ii) Clarify the meaning of product moment correlation and compute the product moment co-efficient correlation for the following data. (6+9)

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

- 3a) i) Describe one tail and two tail tests for 0.05 and 0.01 level of significance.  
ii) Enumerate the assumptions and uses of parametric tests. Frame an appropriate hypothesis for the following data and test it at 0.05 level of significance. (6+9)

	Group A Co-operative learning strategy	Group B Lecture Method
Mean	70	80
SD	5.5	4.5
N	200	175

[or]

- b) i) Explain the concept and uses of Scheffe's test and Fisher's Protected 't' test.  
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. (6+9)

Ideal	KWL	SE
25	25	20
15	20	15
22	25	20
20	20	25
20	22	20

- 4a) i) Explain the need and criteria of evaluation of a research report.  
ii) Compare between references and bibliography and write any five references using APA 7<sup>th</sup> edition. (8+7)

[or]

- b) i) For the following data, test the hypothesis that Teacher effectiveness and Gender are independent of each other at 0.05 level of significance.

<b>Teacher Effectiveness</b> →	<b>High</b>	<b>Low</b>
<b>Gender</b> ↓		
<b>Male</b>	20	10
<b>Female</b>	25	5

- ii) Explain the meaning and format of a research synopsis. (8+7)

### Section B

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

- 5 a) Explain Solomon four group design of experimental research.  
b) Discuss the meaning and assumptions of Sign test.  
c) Explain the types of errors in testing hypothesis.  
d) Compute 0.95 and 0.99 confidence limits of population mean ( $M_{pop}$ ) for the following data.

<b>N</b>	<b>Mean</b>	<b>SD</b>
100	60	4

\* \* \* \* \*

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

**M.Ed. Two Year Programme**

**Third Semester Test - September 2025**

**MEH504 : Methodology of Research in Education – II**

Time : 3 Hours

Date : 20-09-2025

Max. Marks : 70

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

**Section A**

Answer the following questions in about four to five pages each.

- 1a) i) Explain the threats of internal and external validity of experimental research.  
ii) Discuss the characteristics and steps of a case study. (8+7)  
[or]

- b) i) Discuss the characteristics of correlational research and the ethical issues in correlation research.  
ii) Explain Solomon four group design with a suitable illustration. (8+7)

- 2a) i) Explain the concepts of linear regression and its applications in predictive studies.  
ii) Discuss the procedure of organizing and presenting qualitative data. (8+7)  
[or]

- b) i) Explain the concept of product moment correlation and calculate the product moment correlation for the following data.

	A	B	C	D	E	F	G	H	I	J	K
<b>Scientific attitude</b>	80	45	55	56	58	60	65	68	70	75	85
<b>Achievement in Science</b>	82	86	50	48	60	62	64	65	70	74	90

- ii) Explain the procedure of content analysis and coding in analysis of visual data. (8+7)

- 3a) i) Explain one-tail and two-tail tests for 0.05 and 0.01 level of significance.  
ii) Explain the procedure of testing the hypothesis; frame an appropriate hypothesis and conclude about the effectiveness of the method used for the following data. (6+9)

	<b>Experiential learning</b>	<b>Lecture Method</b>
<b>SD</b>	8	7
<b>N</b>	65	65
<b>Mean</b>	43	30

[or]

- b) i) Explain type I and type II errors with suitable examples.
- ii) Compute 'F' ratio for testing the significance of 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 memorization**

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

- 4a) i) Discuss the referencing and bibliography in APA style to be followed in a research report with appropriate examples.
  - ii) Explain the general principles and format of a research report. (6+9)
- [or]
- b) i) Explain the meaning, assumptions and uses of Mann-Whitney and sign 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

**Section B**

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

- 5 a) Write an abstract for a research study of your choice.
- b) Explain the concept and uses of post hoc tests.
- c) Discuss the meaning and characteristics of causal comparative studies.
- d) Describe the analysis of visual data.