



**DURATION: THREE (03) HOURS** 

DATE: 01<sup>st</sup> March 2006 TIME: 10.00 a.m. – 1.00 p.m.

## Answer only three (03) Questions.

- 01. i. State any research problem suitable for an Experimental Research. (10 marks)
  - ii. State the specific research questions/hypothesis and the variables related to each of the research questions/hypotheses.

(40 marks)

- iii. Explain the sampling design and the data collection process in your study.
  (30 marks)
- iv. Discuss the limitations of the Experimental Research design in relation to your study.

(20 marks)

- 02. i. State two research problems that can be studied using Action Research design. (20 marks)
  - ii. Compare and discuss the main characteristics of action research and survey research.

    (40 marks)
  - iii. Examine the main advantages of using the action research design to solve a problem in an educational setting.

    (40 marks)

03. i. Describe the characteristics of qualitative research, and explain how they differ from characteristics of quantitative research.

(30 marks)

ii. State a research problem that is suitable to be studied using the case study method, and give reasons for your answer.

(16 marks)

iii. Briefly describe the main steps that you would follow, when conducting the above case study.

(30 marks)

iv. Explain three main limitations with case study research.

(24 marks)

04. The mathematics marks obtained by a group of 40 students in a class are given below.

16	32	46	58	63	58	74	79
33	41	25	62	71	47	66	46
37	45	37	27	34	82	31	68
56	22	70	20	30	40	52	12
92	16	76	65	80	54	64	39

i. Construct a frequency distribution table for the above set of marks, taking (37-48) as one of the class intervals.

(10 marks)

ii. Represent the above data using a frequency curve, taking moving averages of frequencies on the vertical axis.

(15 marks)

iii. Comment on the shape of the above curve.

(10 marks)

iv. Calculate the arithmetic mean of this distribution considering the assumed mean to be in the class interval, (37-48).

(20 marks)

v. Explain why the arithmetic mean is a better measurement of Central Tendency, compared to Mode and Median.

(10 marks)

vi. Calculate the Standard Deviation.

(20 marks)

vii. Explain why the standard deviation is a better measurement of variability, compared to range and quartile deviation.

(15 marks)

05. i. Explain the importance of reviewing literature when conducting educational research.

(20 marks)

ii. Describe with examples, different types of literature that may be reviewed in the literature review.

(30 marks)

- iii. Describe the main steps involved in the process of a literature review.
  (30 marks)
- iv. Discuss the main sources of information which can be used for a literature search.

(20 marks)

- 06. Write short notes on <u>any three (03)</u> of the following.
  - i. Characteristics of a good research proposal.
  - ii. Qualities of a good data collection instrument.
  - iii. Distinctive characteristics of exploratory interviews.
  - iv. Main stages of a research process.
  - v. Accepted principles of research ethics.

(33-1/3 marks each)

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