



KIBABII UNIVERSITY COLLEGE

(A Constituent College of Masinde Muliro University of Science Technology)

P.O. Box 1699-50200 Bungoma, Kenya

Tel. 020-2028660/0708-085934/0734-831729

E-mail: enquiries@kibabiiuniversity.ac.ke

**UNIVERSITY EXAMINATIONS
2013/2014 ACADEMIC YEAR**

1ST YEAR 2ND SEMESTER EXAMINATIONS

FOR THE DEGREE

M.Ed EDUCATIONAL MANAGEMENT AND POLICY STUDIES

CODE: EPM 812

COURSE TITLE: RESEARCH METHODS IN EDUCATION II

DATE: 30TH APRIL, 2014

TIME: 9:00A.M. – 12 NOON

Instructions

Question one is compulsory

Answer any other TWO questions

1. Distinguish between the following terms in educational research (8mks)
- i. Descriptive and inferential statistics
 - ii. Parametric and non parametric statistics
 - iii. Discrete and continuous variables
 - iv. Qualitative and quantitative research
- b) Discuss the scales of measurement as applied to statistical variables (6mks)
- c) Explain ways in which data can be summarized (4mks)
- d) Discuss the different types of sampling designs and their significance to educational research (8mks)
- e) What proportion of the normal curve lies between a Z-score of -2.50 and a Z-score of 1.50? (4mks)
2. a).The following are data collected from the field for the faculty of education and social sciences. Create a cumulative frequency distribution (5mks)

21	15	28	22	26	22	14	20	25	27	25	28	24	18	20	19	25
23	33	24	16	31	26	19	23	21	32	26	31	34	30	27	21	23

- b).The following are the scores for students in a particular course

X	50-53	53-56	56-59	59-62	62-65	65-68	68-71	71-74	74-77
F	3	8	14	30	36	28	16	10	5

From the above data, calculate the mean, median and mode (10mks)

3. A factory produces two types of electric bulbs A and B. In a research experiment relating to their life, the following results were obtained.

Length of life(in hours)	No of bulbs	
	A	B
500-700	5	4
700-900	11	30
900-1100	26	12
1100-1300	10	8
1300-1500	8	6
	60	60

Compare the variability of the two varieties using the coefficient of variation (15mks)

4. Two 12m boats K-boat and L-boat are tested as possible contenders in the kodai cup racer. The following data represents the time in minutes to complete a particular track in independent random trials of two boats.

K boat	12.0	13.1	11.8	12.6	14.0	11.8	12.7	12.4	13.5	12.2	11.6	12.9
L boat	11.8	12.1	12.0	11.6	11.8	12.0	11.9	12.6	11.4	12.0	12.2	11.7

- i. Test whether the two boats perform equally well.
 - ii. What is your interpretation of the outcome? (15mks)
5. Job satisfaction as a function of work schedule was investigated in two different factories. In the first factory the employees are on a fixed shift system while in the second factory the workers have a rotating shift system. Under the fixed shift system, a worker always works the same shift, while under the rotating shift system, a worker rotates through the three shifts. Using the scores below determine if there is a significant difference in job satisfaction between the two groups of workers (15mks).

Work Satisfaction Scores for Two Groups of Workers

Fixed shift	Rotating shift
79	63
83	71
68	46
59	57
81	53
76	46
80	57
74	76
58	52
49	68
68	73