



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER
OF EDUCATION (SPECIAL NEEDS EDUCATION)

PSE 504: STATISTICS

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DATE: MONDAY 26TH MARCH 2012

TIME: 2.00 P.M. - 5.00 P.M.

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INSTRUCTIONS

Answer Question ONE and any other two questions.
Illustrations should be used where appropriate

1. a) Define the following terms/concepts
 - i) Sampling (1 mark)
 - ii) Data (1 mark)
 - iii) Normal curve (1 mark)
- b) Distinguish between the following
 - i) Standard error and standard deviation (1 mark)
 - ii) Discrete variable and continuous variable (1 mark)
- c) Prepare hypothetical data to relate them to qualitative, discrete and continuous variables (8 marks)
- d) State 4 methods of organizing educational data (4 marks)
- e) Discuss procedure in conducting an Z- test (6 1/3 marks)

2. Data below shows performance mean grade of selected secondary schools in National examination in English and Mathematics during 2006-2010.

Year	Subject	2006 Mean grade	2007 Mean grade	2008 Mean grade	2009 Mean grade	2010 Mean grade
I	English Math	10.92	10.52	10.13	11.31	11.22
		9.75	10.19	10.49	10.85	11.07
II	English Math	10.67	10.56	9.72	10.76	10.31
		8.32	7.86	9.99	9.76	10.39
III	English Math	10.50	10.10	16.33	9.6	10.52
		8.25	7.59	9.96	8.28	8.01
IV	English Math	9.99	10.36	9.29	9.6	10.52
		6.8	10.47	9.25	8.28	8.01
V	English Math	9.48	9.77	9.73	9.19	9.62
		7.11	10.24	9.16	9.23	9.04
VI	English Math	8.31	8.46	8.39	8.5	8.57
		5.5	5.8	5.77	6.03	6.14

Using a suitable statistical method

- i) Present individual school performance in each subject for the period 2006-2010 and comment on your result. (12 marks)
 - ii) Is the mark grade in each subject uniform at 95% confidence level? (11 1/3 marks)
3. Describe four methods of organizing and presentation of quantitative data. (23 1/3 marks)
4. The % marks score in an examination was recorded as follows.

60	50	49	42	42	61	66	45	80	72
40	59	38	88	66	43	41	57	89	79
65	70	55	71	74	65	33	50	67	36
48	62	83	51	33	22	39	52	77	44

- Compute
- i) First and third quartiles
 - ii) The 55th and 80th percentiles
 - iii) Semi inter-quartile range (23 1/3 marks)