FACULTY OF EDUCATION AND SOCIAL SCIENCES

DEPARTMENT OF EDUCATION FOUNDANTIONS

2013/2014 ACADEMIC YEAR

SEMESTER MAIN EXAMINATION

MASTERS OF EDUCATIONAL PLANNING & MANAGEMENT

COURSE CODE: EPM 812

COURSE TITLE: RESEARCH METHODS IN EDUCATION – II

DATE: **TIME:**

INSTRUCTIONS TO THE CANDIDATES

- **ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS**

1 a) Using relevant examples distinguish between the following terms

    i)   Descriptive and inferential statistics
    ii)   Null and alternative hypothesis
    iii)   Independent and dependent variable   (6 Marks)

b) The mean annual salaries paid to all the employees of a company was Kshs.5,000. The mean annual salaries paid male and female employees were Kshs.5,200 and Kshs.4,200 respectively. Determine the percentage of males and females employed by the company if the total employee is 1000   (6 Marks)

c) Explain the steps involved in testing a research a hypothesis   (6 Marks)

d) 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
Y	3	8	14	30	36	28	16	10	5

From the above data, calculate the mean, median and mode and standard deviation   (12 Marks)

1. The following data is provided

Student	Math 1	Math 2
1	22	23
2	16	33
3	28	24
4	22	16
5	26	31
6	22	26
7	14	19
8	20	23
9	25	21
10	27	32
11	25	26
12	28	31
13	24	34
14	18	30
15	20	27
16	19	21
17	25	23
18	17	14
19	18	21
20	21	21
21	14	20
22	20	12
23	19	16
24	26	30

25	28	20
26	23	18
27	22	27
28	24	24
29	22	17
30	20	27

a) What is the appropriate t-test and why   (2 Marks)

b) Use the t-test you have chosen to analyze the data with an alpha of 0.05 (10 Marks)

c) What is the interpretation of the results   (3 Marks)

3. 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 independent random trails 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	12.2

i)   Test whether the two boats perform equally well

ii)   What is your interpretation of the outcome   (15 Marks)

4. The following data has been ranked by two teachers. Determine if the two teacher's rankings are related to one another   (15 Marks)

S/No	Teacher 1	Teacher 2
1	2	1
2	1	2
3	4	3
4	3	4
5	6	5
6	7	6
7	5	7

5. Tea competitors in a beauty contest are ranked by three judges in the following data

1st judge	1	4	6	3	2	9	7	8	10	5
2nd judge	2	6	5	4	7	10	9	3	8	1
3rd judge	3	7	4	5	10	8	9	2	6	1

Use the method of rank correlation coefficient to determine which pairs of judge have the nearest approach to common taste in beauty (15mks)