KIBABII UNIVERSITY

UNIVERSITY EXAMINATION
ACADEMIC YEAR 2019/2020

FIRST YEAR FIRST SEMESTER REGULAR EXAMINATION

DOSCTOR OF PHILOSOPHY IN EDUCATIONAL PLANNING AND MANAGEMENT

COURSE CODE: EPM 914
COURSE TITLE: EDUCATION STATISTICS

DATE: "THURSDAY 18 Feb 2021"   **TIME: 2:00-5:00** PM

INSTRUCTIONS TO CANDIDATES

Answer Question One (compulsory) and Any other TWO (2) Questions

KIBU observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

1. a) Distinguish between the following terms
    i.   Sample and a population
    ii.   Parametric and non parametric
    iii. Descriptive and inferential statistics (6mks)

   b) Giving relevant examples, explain the significance of categorical data in research (5mks)
   c) State the conditions required to use chi-square technique of analysis (4mks)
   d) The following is the score of 60 students in an integrated science examination

24	14	11	12	13	15	8	17	1	7
14	7	3	15	28	10	10	19	20	1
14	16	4	11	22	18	6	14	10	4
9	19	16	20	5	5	16	15	23	10
6	7	5	0	13	4	5	0	8	17
24	0	29	14	3	24	22	8	2	28

   i.   Construct the frequency table using the ungrouped data.
   ii.   Group the data and using class interval/size of 3 construct a second frequency table.
   iii. Draw the different types of graph for the data.
   iv.   Compute the mean, variance and standard deviation of the set of scores. (15mks)

2. An investigation was conducted by an institution on the value of educational and aptitude tests as assessment methods for recruiting methods for recruiting employees. It is the present practice of the institution to give recruits such tests when they apply for posts. The following data gives the educational and aptitude test scores together with assessment score by the personal department of their ability, one year after joining the institute. 1 is a low score and 20 is high score.

Employee	Educational test	Aptitude	Assembly by officer
A	9	17	12
B	10	14	14
C	15	12	16
D	14	13	15
E	16	10	17
F	11	15	10
G	12	12	11
H	17	16	18

   i)   Rank each of the data
   ii) Calculate 2 appropriate rank correlation coefficient   (15mks)

3. Ten entries are submitted for a competition. Three judges study each entry and list the ten in rank order. Their rankings are as follows

Entry	A	B	C	D	E	F	G	H	I	J
Judge	9	3	7	5	1	6	2	4	10	8

1										
Judge 2	9	1	10	4	3	8	5	2	7	6
Judge 3	6	3	8	7	2	4	1	5	9	10

Determine:
  i.   Which pair of judges agrees the most?
  ii.   Which pair of judges disagrees the most?

(15mks)

4. a) Explain the condition necessary for parametric test to be used in data analysis (4mks)
   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 (11mks)

5. a) Discuss the significance of statistics to education research and planning (5mks)
   b) The data on price and quantity purchased relating to commodity for five months is given below

Month	January	February	March	April	May
Prices(ksh)	10	10	11	12	12
Quanty (kg)	5	6	4	3	3

Find the Pearson correlation coefficient between prices and quantity and comment on its sign and magnitude (10mks)