NATIONAL OPEN UNIVERISTY OF NIGERIA

91Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja

FACULTY OF EDUCATION

FEBRUARY/MARCH EXAMINATION 2018

COURSE CODE: **EDU821**
COURSE TITLE: **STATISTICAL METHODS**
CREDIT UNIT: **3**
TIME ALLOWED: **3 HOURS**
INSTRUCTION: **Answer question ONE and any other THREE**

1.(a) The average scores of Masters' Education students in EDU821 for five years are as follows:

Year	2012	2013	2014	2015	2016
Score	60	39	41	46	38

Use pie chart to represent the data. (6 marks)

(b)(i) List the three commonest type of central tendency (3 marks)

(ii) Enumerate FOUR key steps you would follow to draw a frequency distribution table (4 marks)

(c)(i) The mean age and median of ODL students in research methods class were 60 and 58 respectively. If the standard deviation is 7.5, what is the coefficient of skewness of the students' age? (6 marks)

(ii) Calculate the modal weights from

Weights	40-49	50-59	60-69	70-79	80-89	90-99	100-109
Frequency	9	2	22	30	17	4	16

(6 marks)

2.(a)(i) State any FIVE rationale for studying statistics as a teacher (5 marks)

(ii) Describe THREE types of statistics you know. (6 marks)

(b) If A= 1, 3, 4, 6, 10 and B =2, 4, 6, 8, 10. What is the value of $\Sigma A \Sigma B(\Sigma A+\Sigma B)$ (4 marks)

3.(a) Using these set of scores: 10, 8, 7, 6, 3, 2, 1. Compute the

(i) Sum of scores (2 marks)

(ii) Sum of squared scores (2 marks)

(iii) the standard deviation (5 marks)

(b) Differentiate between (i) Frequency polygon and Ogive (ii) Measures of dispersion and Measures of Agreement.

(6 marks)

4(a) Find the (i) mean deviation and (ii) standard deviation of the following set of data:

10, 20, 8, 5, 15, 12 (6 marks)

4(b) (i) Mention FIVE values to be assigned to variables that may be correlated. (5 marks)

(ii) Distinguish between Spearman-Brown Rank Order correlation and Point Biserial correlation (4 marks)

5.(a) The table below shows the marks scored by a group of 800 level NOUN students

Mark	0	1	2	3	4	5
Frequency	1	4	9	8	5	3

(i) Calculate the mean (3 marks)

(ii) Find the median (4 marks)

(iii) If the information were to be represented in a pie chart, what would be the sectorial and for the marks 2 and 5.

(4marks)

5.(b) Give one similarity and one dissimilarity between Stanine and T scores. (4 marks)

6.(a) The scores of ODL students in EDU823 and EDU820 were as contained in the table

EDU823	5	3	4	6	5.5	7	7.5	9	8	8.5
EDU820	3	5	4	4.5	6.5	6.5	7	7.5	8.5	6

(i) Find the rank corre,lation coefficient (8 marks)

(ii) Interpret you result in (i) (1 mark)

6(b) What is measurement? Distinguish among the four data scales of measurement. (6 marks)