



NATIONAL OPEN UNIVERSITY OF NIGERIA
91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESS WAY, JABI-ABUJA
FACULTY OF MANAGEMENT SCIENCES
2019_2 EXAMINATION

COURSE CODE: BUS 722
COURSE TITLE: BUSINESS STATISTICS
CREDIT UNIT: 2

INSTRUCTIONS:

- 1. Indicate your Matriculation Number clearly**
- 2. Attempt Question 1 and any other two (2) questions**
- 3. Question 1 is compulsory and carries 30 marks while the other 2 questions carry 20marks each**
- 4. Present all your points in a coherent and orderly manner**

Time Allowed: 2 Hours

1. What is the importance of Statistics to human activities? (10 Marks)

1b. A wholesaler stocks heavy (2B), medium (HB), fine (2H) and extra fine (3H) pencils which come in packs of 10. Currently in stock are two (2) packs of 3H, 14 packs of 2H, 35 packs of HB and 8 packs of 2B. if a pack of pencil is chosen at random for inspection, what is the probability that they are:

- (a) Medium (5 Marks)
- (b) heavy (5 Marks)
- (c) fine (5 Marks)
- (d) neither heavy nor medium? (5 Marks)

2. Write short notes on the following

- (i) Entity (vi) Discrete Variable
- (ii) Random Variable (vii) Continuous Variable
- (iii) Variable (viii) Population
- (iv) Quantitative Variable (ix) Sample
- (v) Qualitative Variable (x) Random Variable (2 Marks each)

3. From the following data calculate price index for 2015 with 2013 as the base year by (i) Laspeyre's method (ii) Pasche's method (iii) Fisher's method and (i) Dowbish-Bowley price index methods

<i>Commodities</i>	<i>2013</i>		<i>2015</i>	
	Price	Quantity	Price	Quantity
<i>Gaari</i>	20	8	40	6
<i>Rice</i>	50	10	60	5
<i>Fish</i>	40	15	50	15
<i>Palm-oil</i>	20	20	20	25

(20 Marks)

4. NOUN Centre's stores has been selling the Wonders of statistics study guide for 12 Semester and would like to estimates the relationship between sales and number of sections of elementary statistics taught in each Semester. The data below have been collected.

Sales (units)	33	35	24	61	52	45	65	82	29	63	50	79
No of sections	3	7	6	6	10	12	12	13	12	13	14	15

- a. Obtain the coefficient of correlation (15 Marks)
 b. Comment on your result? (5 Marks)

5a. What is the objective of the analysis of variance technique? (5 Marks)

5b. What are the Steps for testing hypothesis for more than two means, analysis of variance technique (ANOVA)? (15 Marks)