NATIONAL OPEN UNIVERSITY OF NIGERIA
SCHOOL OF AGRICULTURAL SCIENCES
SEPTEMBER, 2020_1

COURSE CODE: AGR 302
COURSE TITLE: AGRICULTURAL STATISTICS AND DATA PROCESSING
INSTRUCTIONS: ANSWER FOUR (4) QUESTIONS IN ALL. QUESTION 1 IS COMPULSORY WITH 25 MARKS AND ANY OTHER THREE (3) QUESTIONS WITH 15MARKS EACH
TIME ALLOWED: 2HOURS
CREDIT UNIT: 2
QUESTIONS

1 Complete the table using the data collected from the plant height of 50 (fifty) stands of okra at 30 days.

70 72 72 72 72 73 73 74 74 74
74 74 75 75 75 75 75 76 76 76
76 76 76 76 76 76 76 76 77 77
77 77 77 77 77 77 77 77 78 78
78 78 78 78 79 80 80 80 81 81

Class limits	Tally	Frequency	Cumulative Frequency	Relative Frequency
70	/	1	1	2

b. Calculate:
   i. Range of the 50 okra stands
   ii. Mode 25 marks

2 Define the following concepts of Statistics:
   i. Population
   ii. Sample
   iii. Random Sampling
   iv. Qualitative variables
   v. Qualitative variables (10 marks)

b. Discuss Classical probability (5 marks)

3 State three (3) reasons why construction of frequency distribution is important. (3 marks)

b. Describe a binomial distribution

i. 7!

ii. 10!

iii. 9!

iv. 5! (12 marks) Total – 15 marks

4. Discuss the concept of Normal Distribution (11 marks)

b. When two (2) coins are tossed, what is the probability of?

i. 2 heads

ii. 2 tails

iii. 1 head and 1 tail (4 marks) Total – 15 marks

5. Define descriptive statistics. (6 marks)

b. State four (4) purposes of graphing (4 marks)

c. List five (5) common measures of dispersion (5 marks)

6. What is the relationship between mean and standard deviation? (5 marks)

b. Two breeds of goat namely West African Dwarf and Red Sokoto were being weighed at three (3) weeks of age. Below is the data collected

Goat Breed	WAD (grams)	Sokoto (grams)
1	110	100
2	115	110
3	105	112
4	120	180
5	115	100
6	115	150
7	120	160
8	130	104
9	104	116
10	100	102
11	205	100
12	200	110
13	160	108
14	180	109
15	100	170

a. Calculate the Mean, Median and Modal value for both fowl breeds (10 marks)

7. Describe Empirical Probability (5 marks)

b. State four reasons why replication is being carried out. (4 marks)

c. State six (6) types of correlation (6 marks)