NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF AGRICULTURAL SCIENCES
2023_1 POP EXAMINATION

Programme: Agricultural Extension and Management
Course Code: AEM 772
Course Title: Research Methods and Statistics
Credit Unit: 2
Total Score: 70 Marks
Time Allowed: 2 Hours
Instruction: Answer any three (3) Questions

1a. Justify the meaning of research **($7^1/_2$marks)**
 b. State the purpose of conducting research **($1^1/_2$marks)**
 c. Identify ten (10) characteristics of a research problem **(15marks).**

2a Explain why researchers adopt the use of sample **(5marks)**
b. Write short notes on the following:
i. Sample **(2marks)**
ii. Statistic **(2marks)**
iii. Sampling frame **(4marks)**
iv. Probability **(4marks)**
v. Parameter **(6marks)**

3. Explain the following:
a. Positively skewed distribution **(5marks)**
b. Negatively skewed distribution **(4marks)**
c. Normal distribution **(14marks)**

4a. Provide an explanation to the meaning questionnaire **(8marks)**
 b. Outline the guidelines on questionnaire design **(15marks).**

5a. In a sample of 100 farmers, 60 of the farmers were female while 40 were male. Assume their knowledge level to be 70% and 80% male and female respectively, calculate the average knowledge of the farmer **(6marks)**.
 b. Provide an explanation to the meaning of Inferential Statistics **and** Null hypothesis. In each case, support your explanations with six instances **(12marks)**
 c. Identify five (5) of rules for constructing a table **(5marks)**