



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
MARCH/APRIL 2016 EXAMINATION
SCHOOL OF AGRICULTURAL

Course Code: AEM772
Course Title: Research method and Statistics
Credit Unit: 2
Time Allowed: 2 Hours
Instruction: Answer any four (4) Questions

1. (a)i. What do you understand by Research?
 - ii. What are the goals of research?
 - iii. Outline five significances of theory in research.
- (b)i. List five criteria for selecting a research problem to work on.
 - ii. Outline the importance of literature review.
- (c) i. The following are scores obtained by 38 students in a particular course. Using the scores, construct frequency and cumulative frequency tables;

23,26,26,27,28,28,28,29,29,29,29,30,30,30,31,31,31,31,32,32,32,32,33,33,33,33,34,34,34, 34,35,35,35,35,36,36,36,36

ii. What is the median for the following set of eight numbers?

32,24,22,20,30,15,18,38
2. (a) i. Enumerate the functions of a research proposal.
 - ii. Outline the components of a research proposal.
 - iii. List the sections that make up methodology in research.
- (b) Below is the per capita income of a country in a given period of time and public expenditure on education per student:

Years	Per capita income(N)	Public expenditure per student(N)
1	2520	534
2	4272	922
3	3568	695
4	3944	842
5	2194	476
6	2890	609
7	4421	1237
8	3779	904
9	3051	657

Obtain the best fitting prediction line using method of least square.

Predict Y when X= 4000

3. (a) Enumerate the basic steps in testing hypothesis.

(b) What is hypothesis?

(c)i. List the sources of data in a research.

ii. Outline the various types of research.

(d) What are the guidelines for selecting and developing a good questionnaire?

4. (a) Outline the qualities of a good enumerator.

(b) Why is pre-testing of a study instrument an essential part of a research?

(c) State the advantages and disadvantages of secondary source of data.

5. (a) Write short notes on the following:

I. Census

II. An element

III. Population

IV. A sampling unit

V. A sampling frame

VI. A sample

VII. Sampling.

(b) Outline the importance of sampling in a study.

6. (a)i. List the two broad or basic sampling techniques and in each case state the types.

ii. What are the characteristics of non-probability sampling technique?

iii. What are the steps to be used to determine a sample size?

(b) The following are the scores obtained by two groups of students in a comparative examination. Test whether the two groups belong to the same population.

Group A: 51, 68, 90, 81, 30, 46, 99, 98, 11, 06, 19, 43

Group B: 95, 82, 65, 85, 65, 81, 50, 60, 15, 05, 35, 32