



NATIONAL OPEN UNIVERSITY OF NIGERIA

14/16, Ahmadu Bello Way, Victoria Island

SCHOOL OF SCIENCE AND TECHNOLOGY

October, 2013 Examination

Course Code: AEM 772

Course Title: Research Methods and Social Statistics

TIME: 3hrs

INSTRUCTIONS: ANSWER 5 QUESTIONS ONLY. ALL QUESTIONS CARRY EQUAL MARKS

- 1a. Differentiate between basic research and applied research.
(8 marks)
- 1b. Highlight the sequential stages involved in the conduct of Farming System Research. (12 Marks)
- 2a. Discuss fully, the criteria a scientist needs to adopt when selecting a good research problem highlighting the possible sources of research topics.
(20Marks)
- 3a. Briefly outline the general structure of a research proposal.
(10 Marks)
- 3b. Write a short note on Case studies and Evaluation research.
(10Marks)
- 4a. Highlight the advantages and disadvantages of using interviews as a means of generating information
(10Marks)
- 4b. What do you understand by observation survey?. What are its merits and demerits? (10Marks)
- 5a. When planning a research work, what are the factors that aid in the determination of an appropriate sample size. (5 Marks)
- 5b. Outline the steps to be followed to arrive at 5a above
(5 Marks)
- 5c. In determining the sample size of a survey of adoption level of new cowpea varieties, the following assumptions were made: Variation of 8 people, Standard deviation of the population is 10,
Confidence level = 0.01 and a Z value of 2.58.
 - i. Calculate the sample size.
 - ii. What conclusion can you draw concerning the population size?(10 Marks)
- 6a. Differentiate between a bibliographical and footnote entries
(10Marks)
- 6b. Write a short note on appendices highlighting the materials that usually appear in an appendix
(10Marks)

7. The data below gives the per capita income (X) of some countries and expenditure on education per student (Y). Predict Y when X = 4000

Countries	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