



NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2019_1 EXAMINATION

SUBJECT TITLE: RESEARCH METHODOLOGY
SUBJECT CODE: ECO 311
TIME ALLOWED: 3 HOURS
INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER THREE

QUESTION 1

- (a) Explain major distinction between parameter and statistics. **(10 marks)**
 (b) Assuming mean lifetime of a sample of 100 energy saving bulbs manufactured by a firm is computed to be 1570 hours with a standard deviation of 120 hours. If the populations mean light bulbs manufactured by the firm is 1600 hours. Test the hypothesis that, the mean lifetime of the bulbs is not equal to 1600 hours. Test the hypothesis at $\alpha = 0.01$. **(12 marks)**

QUESTION 2

- (a) Define Research **(6 marks)**
 (b) List and explain five features of research. **(10 marks)**

QUESTION 3

- (a) Distinguished between research problem and problem area of focus. **(6 marks)**
 (b) List the guidelines for selecting research problems. **(10 marks)**

QUESTION 4

- (a) Briefly outline the guidelines for selecting a research title. **(8 marks)**
 (b) What are the components of a good scholarly reviewed literature? **(8 marks)**

QUESTION 5

- (a) The information below shows the distribution of suspended particulate matter in samples of air taken from 60 large cities. Determine the mode. **(10 marks)**

Frequency distribution of the Particulate matter from 60 large cities

Class interval	10-19	20-29	30-39	40-49	50-59	60-69	70-79
Frequency	5	19	10	13	6	4	3

- (b) Differentiate between measures of location and measures of spread. **(6 marks)**

QUESTION 6

- (a) Outline the various steps in sampling process you know. **(10 marks)**
 (b) Find the Standard Deviation of the figures: 11, 13, 16, 22 and 30. **(6 marks)**