UNIVERSITY OF CAPE COAST

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

COURSE TITLE: MANAGEMENT SUPPORT SYSTEMS

COURSE CODE: INF 399

INDEX NUMBER: PS/ITC/20/0086

1. a. metaphysics

   b. epistemology

2. Pragmatism

3. a. Probability Sampling

   b. Non- Probability sampling techniques

4. a. Primary observation

   b. Secondary observation

   c. Exponential Data

5. If picked properly and randomly, a sample of 500 volunteers can be accurate for a population of 2,500. The main traits of the population should be adequately reflected. Greater samples yield more accurate estimations. The dependability of the sample for research goals can be evaluated by calculating the margin of error and confidence level.

6. To perform a simple random sampling for a survey on biking levels and influencing characteristics in Cape Coast, using the telephone directory as the sampling frame:

1. I will create a list of all adult residents in Cape Coase from the telephone directory.

2. I will then assign a unique number to each individual in the list.

3. I then decide on the desired sample size for the survey.

4.I then randomly select individuals from the list using a random number generator or method.

5. I will contact the selected individuals using their registered telephone numbers and request their participation.

6. I will then conduct the survey by asking questions related to biking habits and influencing factors.

7. To determine the sampling interval, you divide the total population size by the desired sample size:

1. Sampling Interval:

Sampling Interval = Total Population Size / Desired Sample Size

Sampling Interval = 1500 / 300

Sampling Interval = 5

The sample interval is therefore 5. As a result, the sample will consist of every fifth employee on the list.

2. First 5 Numbers of the Sample:

If the first randomly drawn number is 8, then the first 5 numbers of the sample can be calculated as follows:

- 8 (first randomly drawn number)
- 8 + 5 = 13
- 13 + 5 = 18
- 18 + 5 = 23
- 23 + 5 = 28

So, the first 5 numbers of the sample, starting from the randomly drawn number 8, would be 8, 13, 18, 23, and 28..