

SOLUTIONS

King Fahd University of Petroleum & Minerals
Department of Mathematical Science
STAT-211-Term043-II

Quiz #1

ID:

Section:

Serial:

Name:

Question One (10-Points)

Write **True** if the statement is true or **False** if not:

- a. Descriptive statistics describes data using graphs and numerical measurements: True
- b. Any process generates data as its outcome is called an experimental design: False
- c. Data comes from a written surveys is a secondary data: False
- d. The percentage computed based on a sample of size 1000 is a parameter: False

Question Two :(5-Points)

Define using your words the following:

- a. Parameter: Any numerical measurement based on the whole population.

- b. Population: The set of all items of interest or under study.

Question Three (5-Points)

Suppose that you want to ask the students about the quality of foods at the university Cafeteria, if the number of all students is 4000, and you have a frame of all of them, and it is decided to take a sample of size 100 students, which sampling method should be used and explain the method of selecting this sample from the students.

$N = 4000, n = 100$
- Systematic random sample.

$$- K = \frac{N}{n} = \frac{4000}{100} = 40$$

- Choose any number between 1 & K

Say 25, then the sample is:
25, 25+40, 25+2(40), 25+3(40) ... etc.

25, 65, 105, 145, ... etc.