

Course No: TEC 1307
Course Title: Statistics
Date: / 03 / 2014 (09:00– 10:30)
No. of Questions: 3 Questions
Time: 90 Minutes
Using Calculator (YES)

University of Palestine



Final Exam
2nd semester 2013/2014
Total Grade: 50

Instructor Name: Mr.Ahmed Al Astal
Student No.: _____
Student Name: _____
College Name: IT
Using Dictionary (No)

First Question

No. of Branches (1)

(7/20)

Q1 B1

(7/7)

Choose the best Answer:

- 1) A simple random sample is a sample drawn in such a way that:
 - a) each member of the population has some chance of being included in the sample
 - b) every tenth element of an arranged population is included
 - c) each sample of the same size has an equal chance of being selected
 - d) each member of the population has a 0.10 chance for being included in the sample

- 2) A data set is a:
 - a) set of decisions made about the population
 - b) set of graphs and pictures
 - c) collection of observations on one or more variables
 - d) score collected from an element of the population

- 3) A continuous variable is a variable that can assume:
 - a) categorical values only
 - b) a countable set of values only
 - c) an uncountable set of values
 - d) non-numerical values

- 4) Total insect population among 12 U.S. national parks in 2003 is an example of :
 - a) Time Series Data
 - b) Cross Section Data.

- 5) Is the variable "lengths of top-ten hit songs" discrete or continuous?
 - a) Discrete Variable
 - b) Continuous Variable

- 6) An independent group wants to determine if the consumption of gasoline has increased due to changes in price. The group randomly selects 320 gas stations from 12 different states and collects data from the month of the year when gas is the cheapest and from the month of the year when gas is the most expensive. The data shows no significant difference in gas consumption between the two months.

In this example, what is the variable being studied?
 - a) The 320 gas stations chosen
 - b) The 12 different states
 - c) The consumption of gasoline
 - d) The price of gasoline

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Use the following to answer questions 7-10:

The following table gives the frequency distribution of test scores for a math class of 30 students.

Score	f
61 to 70	1
71 to 80	7
81 to 90	13
91 to 100	9

- 7) The width of each class in this frequency table is:
- 8) The midpoint of the fourth class is:
- 9) The lower boundary of the first class is:
- 10) The sample size is:

Use the following to answer questions 11-13:

Suppose you have the following stem-and-leaf display:

1		1	3	
2		1	2	8
3		5		
4		4		

- 11) What is the value of smallest data point in this data set:
- 12) How many observations are in this data set:
- 13) What is the sum of the data values in the bottom two branches in this display:

- 14) The annual incomes of all MBA degree holders working in Los Angeles have a bell-shaped distribution with a mean of \$71,000 and a standard deviation of \$8,000.

According to the empirical rule, the percentage of MBA degree holders working in Los Angeles who have an annual income of \$63,000 to \$79,000 is approximately:

- a) 86%
- b) 68%
- c) 64%
- d) 89%

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Second Question

No. of Branches (1)

(6/20)

Q2 B1

(6/6)

The following table gives the frequency distribution of ages for all 50 employees of a company. Find the following:

1. The Relative Frequency Table *(1 Mark)*
2. The mean and Std. Deviation for this grouped data *(2 Marks)*
3. Draw Histogram for the relative frequency distribution *(2 Marks)*
4. Prepare a cumulative frequency distribution table. *(1 Marks)*

Age	Number of Employees
18 to 30	12
31 to 43	19
44 to 56	14
57 to 69	5

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Third Question

No. of Branches (1)

(7/20)

Q3 B1

(7/7)

The following data gives the number of car thefts occurred in a certain city in the last 12 months

5 7 4 4 4 5 1 7 8 9 9 4

Find: **Mode, Mean, Median, Range, Standard Deviation, Q1, Q3** Then draw the **Box Plot**

End of Questions

Good Luck