National University
of Computer & Emerging Sciences Peshawar Campus

Program: BS (CS)

Semester: Spring-2021

Course: MT205-Probability & Statistics

Examination: Assignment # 01

Total Marks: 10, Weightage: **02**

Date of Submission: 01 / 04 / 2021

NOTE: ATTEMPT ALL PROBLEMS.

Problem # 01

The following data are the blood types of 50 volunteers at a blood plasma donation clinic:

O A O AB A A O O B A O A AB B O O O A B A A O A A O

B A O AB A O O A B A A A O B O O A O A B O AB A O B

(a) Represent these data in a frequency table.

(b) Represent them in a relative frequency table.

(c) Represent them in a pie chart.

Problem # 02

The following table gives information about the age of the population in both the United States and Mexico.

Age, years	Proportion of population (percent)	
	Mexico	United States
0–9	32.5	17.5
10–19	24	20
20–29	14.5	14.5
30–39	11	12
40–49	7.5	12.5
50–59	4.5	10.5
60–69	3.5	7
70–79	1.5	4
Over 80	1	2

(a) What percentage of the Mexican population is less than 30 years old?

(b) What percentage of the U.S. population is less than 30 years old?

(c) Draw two relative frequency polygons on the same graph. Use different colors for Mexican and for U.S. data.

Problem # 03

For the following data, draw stem-and-leaf plots having **(a)** 4 stems and **(b)** 8 stems.

124, 129, 118, 135, 114, 139, 127, 141, 111, 144, 133, 127,

122, 119, 132, 137, 146, 122, 119, 115, 125, 132, 118, 126,

134, 147, 122, 119, 116, 125, 128, 130, 127, 135, 122, 141

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Problem # 04

Find the sample standard deviation of the data set given by the following frequency table:

Value	Frequency	Value	Frequency
3	1	5	3
4	2	6	2

The End