Department of Mathematics
Mid Term Exam Spring- 2024

Class: CEV 4A/BCE4C
Subject: Statistics & Probability Theory
Total Time Allowed: 1:30 hours
Name:_____

Date: 15-05-2024
Instructor: Asif Rafique
Max Marks: 50
Registration #_____

SECTION-B(Short questions)(Marks: 15)

Question # 1.

Find the class boundaries and class width for the following intervals.

a) 7 ---13
b) 10.4 ---- 18.7
c) 0.346 ---- 0.418

Question # 2.

On a vacation trip a family bought 21.3 liters of gasoline at 39.9 cents per liter, 18.7 liters at 42.9 cents per liter, and 21.3 liters at 40.9 cent per liter. Find the mean price paid per liter.

Question # 3

A study of nicotine contents of a certain brand of cigarette shows that on the average one cigarette contains 1.52 mg of nicotine with a standard deviation of 0.07 mg. According to Chebyshev's theorem, between what values must the nicotine content be for at least $\frac{48}{49}$ of all cigarette of this brand?

Question # 4

In preparation for a spring clearance sale at a women's apparel shop, 4000 brochures were placed in preaddressed envelopes, sealed, and stamped. This process took an average of 7 seconds per envelope with a standard deviation of 1.8 seconds. Assuming this population of times to be approximately bell- shaped, find the number of envelopes that took from 1.6 to 12.4 seconds to prepare.

Question # 5

The following frequency distribution related to the number of tracks in album

No of tracks	9	10	11	12	12	14
frequency	1	4	3	3	0	1

Calculate the median number of tracks in album.

P.T.O

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