COMSATS University Islamabad

2nd Quiz

Course Title:	Statistics and Probability Theory		Course Code:	MTH-262	Credit Hours:	3
Course Instructor/s:	Dr. Tajammal Hussain		Programme Name:	BCS		
Semester:		Batch: BCS	Section:		Date:	18 / 04 /2023
Time Allowed:	45 Minutes		Maximum Marks:		30	
Student's Name:			Reg. No.	CIIT/		

Important Instructions / Guidelines:
- Attempt all questions.

Question 1: (10)

Nine people are going on a skiing trip in 3 cars that hold 2, 4, and 5 passengers, respectively. In how many ways is it possible to transport the 9 people to the ski lodge, using all cars?

Question 2: (10)

A regional telephone company operates three identical relay stations at different locations. During one year, the number of malfunctions reported by stations A, B, and C and the causes are shown below.

Causes	A	B	C
Problems with electricity supplied(E)	2	1	1
Computer malfunction (M)	4	3	2
Malfunctioning electrical equipment (Q)	5	4	2
Caused by human errors (H)	7	7	5

Suppose that a malfunction was reported and it was found to be caused by other human errors. What is the probability that it came from station C?

Question 3: (10)

A pair of fair dice is tossed. Find the probability of getting,
  i)   A difference of at most 2 on two die outcomes (first minus second outcome).
  ii) A sum of at least 10 on two die outcomes.
  iii) A product of more than 24 given that a sum is exactly 10.