

Seat No: - _____

Enrollment No: - _____

**PARUL UNIVERSITY
FACULTY OF ARTS**

B. Arts Midterm Examination 2022–23

Semester: - III

Date: 28/07/2022

Subject Code: - 15101202

Time: 2 hours

Subject Name: - Statistical Methods in Economics

Total Marks: 40

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

		Marks
Q.1	Do As Directed.	06
1	Data that have been organized into a frequency distribution are called:	
	(A) Grouped data	(B) Distributed data
	(C) Ungrouped data	(D) Frequented data
2	Which of these numbers cannot be a probability?	
	(A) 0.5	(B) -0.000001
	(C) 1	(D) 20%
3	Which of the following indicates the relationship among mean, median and mode?	
	(A) $\text{Mode} = 3\text{Median} - 2\text{Mean}$	(B) $\text{Mean} = 2\text{Mode} - 3\text{Median}$
	(C) $\text{Median} = 3\text{Mean} - 2\text{Mode}$	(D) None of these
4	When coefficient of skewness is 0 the distribution is:	
	(A) J shaped	(B) U shaped
	(C) Symmetrical	(D) L shaped
5	. If for sample data: $\text{Mean} < \text{Median} < \text{Mode}$ -	
	(A) Skewed to the right	(B) Symmetric
	(C) Skewed to the left	(D) Neither symmetrical nor skewed
6	Percentile is a statistical term that describes a division of observations into ____ intervals.	
	(A) Four	(B) Ten
	(C) Hundred	(D) Seven
7	If the data is skewed more to the left, it is called	
	(A) Positively skewed	(B) Negatively skewed
	(C) Symmetrical	(D) None of the above
8	What is the correlation between demand and price?	
	(A) Negative	(B) Positive
	(C) No correlation	(D) Any of the above
9	Which of the following is not the measure of central tendency?	
	(A) Arithmetic mean	(B) Median
	(C) Mode	(D) Quartile
10	An event in the probability that will never happen is called as:	
	(A) Unsure event	(B) Sure event
	(C) Possible event	(D) Impossible event
11	What will be the probability of getting odd numbers if a dice is thrown?	

	(A)	1/2	(B)	2		
	(C)	4/2	(D)	5/2		
12	The probability of getting two tails when two coins are tossed is:					
	(A)	1/6	(B)	1/2		
	(C)	1/3	(D)	1/4		
B. Terms / Short Notes / Case Study / Charts / Graphs/ Tables, etc. (Each of 01 mark)					(04)	
1	What is a pie chart?					
2	Who is considered as the father of modern statistics?					
3	Calculate the mode from the data given below showing the marks obtained by 10 students. 75, 80, 82, 76, 82, 74, 75, 79, 82, 70					
4	If the probability of success is 0.53, what is the probability of failure?					
Q.2 Answer the following.						
1	(A) A die is rolled, find the probability that an even number is obtained. (B) If $P(A \cup B) = 17/30$, $P(B) = 2/5$ and $P(A \cap B) = 1/6$. Find $P(A)$.					(04)
2	For a distribution Karl Pearson's coefficient of skewness is 0.64, standard deviation is 13 and mean is 59.2. Find mode and median.					(04)
OR						
2	Define skewness. What are its types?					(04)
Q.3 Answer the following.						
1	Meera took two tests. The probability of her passing both tests is 0.6. The probability of her passing the first test is 0.8. What is the probability of her passing the second test given that she has passed the first test?					(05)
2	The age of 20 boys in a locality is given below. Find the median.					(05)
	Age in years	12	10	15	14	8
	Number of Boys	5	3	2	6	4
OR						
2	Define data. Explain the different types of data.					(05)
Q.4 Answer the following.						
1	Define Kurtosis. What are the different types of kurtosis distribution?					(06)
2	The daily wages of 50 employees in an organization are given below. Find the mean.					(06)
	Daily wages (in \$)	100-150	150-200	200-250	250-300	
	No. of workers	12	13	17	8	
OR						
2	Find the mode of the given data:					(06)
	Marks obtained	0-20	20-40	40-60	60-80	80-100
	No. of students	5	10	12	6	3

*****All the Best*****