Roll No _____ (To be filled in by the candidate)

(Academic Sessions 2020 – 2022 to 2022-2024)

STATISTICS 224-1st Annual-(INTER PART – II) Time Allowed : 15 Minutes
(COMMERCE GROUP) LHR-24 Maximum Marks : 10

Q.PAPER (Objective Type) **PAPER CODE = 8642**

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1	Battery life time is --- variable.			
	(A) Qualitative	(B) Discrete	(C) Comparable	(D) Continuous
2	Graph of class boundaries and frequency is :			
	(A) Histogram	(B) Ogive	(C) Historigram	(D) Bar chart
3	One dimensional diagram is :			
	(A) Rectangular diagram	(B) Square diagram		
	(C) Simple bar chart	(D) Pie diagram		
4	Single value which represent a set of data :			
	(A) Symmetric	(B) Central tendency	(C) Skew-symmetric	(D) Quartile

(Turn Over)

5	If $\Sigma x = 150$, $\overline{X} = 10$ then n = --- :			
	(A) 10	(B) 50	(C) 5	(D) 15
6	Mode of 2, 7, 10, 15 is :			
	(A) Zero	(B) No mode	(C) 2	(D) 15
7	The year of which index number is 100 known as :			
	(A) Current year	(B) Previous year	(C) Chain year	(D) Base year
8	Consumer price index number is also called ---- index number :			
	(A) Value	(B) Volume	(C) Cost of living index	(D) Wholesale price
9	Probability of getting red card when a card is drawn from 52 :			
	(A) $\frac{1}{26}$	(B) $\frac{1}{52}$	(C) $\frac{26}{2}$	(D) $\frac{1}{2}$
10	If $P(A \cap B) = P(A) . P(B)$ then A and B are :			
	(A) Independent	(B) Dependent	(C) Mutually exclusive	(D) Exhaustive

Roll No _____ (To be filled in by the candidate)

STATISTICS (Academic Sessions 2020 - 2022 to 2022-2024)

(COMMERCE GROUP) 224-1st Annual-(INTER PART – II) Time Allowed : 1.45 hours

(Essay Type) Maximum Marks : 40

LHR-24

SECTION – I

2. Write any SIX (6) short answers of the following questions : **12**

(i) Define parameter by giving an example.
(ii) Explain the concept of primary data.
(iii) Differentiate ungrouped and grouped data.
(iv) Define statistics in plural sense.
(v) Distinguish between histogram and historigram.
(vi) What is an array?
(vii) Explain the term " Equally Likely Events".
(viii) Write down sample space when three coins are tossed.
(ix) A die is rolled. What is the probability that it shows odd numbers?

3. Write any SIX (6) short answers of the following questions : **12**

(i) Given $D = X - 2075$, $\Sigma fD = -10750$, $\Sigma f = 500$, find arithmetic mean.
(ii) Describe four desirable qualities of a good average.
(iii) Write down any two properties of arithmetic mean.
(iv) If mode = 15 and median = 12, find mean.
(v) Find the median of 0, -1, -4, 3, 5, 10, -3, -7, 10, 3
(vi) Describe four advantages of mode.
(vii) Contrast between simple and composite index numbers.
(viii) Given $\Sigma p_1q_0 = 7052$ $\Sigma p_0q_0 = 6095$ $\Sigma p_0q_1 = 6980$ $\Sigma p_1q_1 = 8061$, find Fisher Ideal Index.
(ix) Define consumer price index number.

SECTION – II

Note : Attempt any TWO questions.

4. (a) Following data represents the reported sales for 26 companies in the shoe industry : 4
32, 36, 54, 38, 17, 41, 22, 33, 22, 31, 21, 18, 46, 36, 11, 31, 29, 12,
23, 51, 12, 13, 37, 33, 27, 26
Construct a frequency distribution. Using classes with a width of 10 i.e. 10-20, 20-30 etc.

(b) Draw a frequency polygon from the following data : 4

C.I	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39
f	5	11	18	22	15	9	4

5. (a) For the following data , find arithmetic mean by coding method : 4

Marks	30 – 39	40 – 49	50 – 59	60 – 69	70 – 79
f	8	87	190	86	20

(b) If $D = X - 112$, calculate median of 'X' for the following data : 4

D	-2	-1	0	1	2	3
f	24	30	45	65	72	68

6. (a) Given the prices of four commodities. Construct price index numbers by simple aggregate method taking (i) 2016 as base (ii) average of all year aggregate as base : 4

Years	Commodities			
	A	B	C	D
2016	81	77	119	55
2017	62	54	128	52
2018	104	87	111	100
2019	93	75	154	96

(b) A fair die is tossed twice. Find the probabilities that the sum of numbers appearing is : 4
(i) At most 5 (ii) At least 10