2025

(FYUGP)

(3rd Semester)

ECONOMICS

(MAJOR)

Paper Code : EC3.CC6

(Statistical Methods for Economics)

Full Marks : 75
Pass Marks : 40%

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer *any* **five** questions taking **one** from each Unit

UNIT—I

1. *(a)* Discuss the significance of statistics in Economics. 7½

(b) What are the limitations of statistical methods in economic analysis? 7½

OR

2. *(a)* Differentiate between Primary and Secondary data. 5

(b) Explain the various methods of data collection with examples. 10

UNIT—II

3. Discuss the principal steps in a sample survey. State some of the merits of sample method. 10+5=15

OR

4. Explain the various methods of probability sampling with its merits and demerits. 15

UNIT—III

5. *(a)* Calculate the median for the following data : 7

Marks	*Number of students*
Less than 10	10
Less than 20	25
Less than 30	55
Less than 40	93
Less than 50	118
Less than 60	134
Less than 70	143
Less than 80	150

(Continued)

(b) Calculate the standard deviation of the following distribution : 8

X	*f*
0–10	21
10–20	19
20–30	18
30–40	15
40–50	13
50–60	8
60–70	4
70–80	2

OR

6. *(a)* From the following data, compute arithmetic mean using short-cut method : 7

Marks	*Number of students*
0–10	5
10–20	10
20–30	25
30–40	30
40–50	20
50–60	10

(Turn Over)

(b) Compute the mean deviation from the following data : 8

Wages per week	*Number of workers*
10–20	4
20–30	6
30–40	10
40–50	20
50–60	10
60–70	6
70–80	4

UNIT—IV

7. (a) Define probability. Explain the addition and multiplication theorems. 2+6=8

(b) If two coins are tossed at random, what is the probability of getting—

(i) 2 heads;

(ii) 2 tails? 7

OR

8. (a) A box contains 4 red, 2 white and 3 black balls. When a ball is drawn at random, what is the probability that it will be—

(i) red;

(ii) white;

(iii) black? 3+3+3=9

(b) What is the probability of getting a 5 or 6 in the rolling of a die? 6

UNIT—V

9. (a) What is time series? Explain the components of time series. 2+4=6

(b) Find 4-yearly moving average from the given table : 9

Year	1921	1922	1923	1924	1925	1926
Price	3	6	9	8	7	5

Year	1927	1928	1929	1930	1931	1932
Price	8	10	4	2	5	8

OR

10. (a) Define index number. Explain the main problems which are faced in the construction of index number of prices. 2+4=6

(b) From the table below, construct an index number by chain base method : 9

Year	1941	1942	1943	1944	1945
Price	10	12	15	21	21

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