

2/MDC-163 Syllabus-2023

2 0 2 5

(May-June)

FYUP : 2nd Semester Examination

MULTI-DISCIPLINARY COURSE

(Fundamentals of Statistics)

(MDC-163)

Marks : 56

Time : 2½ hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

Answer any *four* questions : 4×4=16

1. Define bivariate and multivariate data.
Provide examples. 2+2=4
2. What is meant by dispersion? What are
the measures of dispersion? 2+2=4
3. (a) What is meant by an impossible event? 2
(b) Give the statistical definition of
probability of an event. 2

D25/1647

(Turn Over)

(2)

4. Define and give examples of qualitative and quantitative data. 2+2=4

5. Given below are the marks of 15 students of a class :

20, 28, 34, 50, 53, 72, 74, 39,

54, 75, 42, 78, 79, 59, 68

Calculate the mean.

4

6. A die is thrown. Find the probability of—

(a) getting a face with an even number;

(b) getting a face with a prime number.

2+2=4

SECTION—B

Answer any *four* of the following : 10×4=40

7. Describe the advantages and limitations of diagrammatic representation of statistical data. Name the different types of diagrams commonly used. 4+4+2=10

8. Describe the different measures of central tendency of a frequency distribution, mentioning their merits and demerits. 10

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(Continued)

9. (a) State the additive and multiplicative laws of probability. $2+2=4$

(b) What are mutually exclusive and exhaustive events? Explain with examples. $2+2=4$

(c) Define conditional probability. 2

10. Explain the four levels of measurement in statistics—nominal, ordinal, interval and ratio. Provide suitable examples. 10

11. Find the median and mode for the following distribution : $5+5=10$

<i>Class interval</i>	<i>Frequency</i>
0-10	20
10-20	45
20-30	85
30-40	160
40-50	70
50-60	55
60-70	35
70-80	30

12. (a) Two dice are thrown simultaneously. Find the probability of getting even number on both the dice. 4

(4)

(b) What is the probability that a leap year selected at random will contain 53 sundays?

3

(c) Three coins are tossed. Express the following events by using appropriate sets :

(i) A : The event of getting at least two heads

(ii) B : The event of getting at most two heads

Examine whether A and B are mutually exclusive.

3

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