

**2025/FYUG/ODD/SEM/
ECOSEC-201T/418**

FYUG Odd Semester Exam., 2025

ECONOMICS

(3rd Semester)

Course No. : ECOSEC-201T

(Data Analysis)

Full Marks : 50

Pass Marks : 20

Time : 2 hours

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

UNIT—I

Answer any three of the following questions :

1×3=3

- (a) Mention any one difference between primary data and secondary data.
- (b) Mention one merit of stratified random sampling.
- (c) Define simple random sampling with replacement.
- (d) What is non-random sampling?

(2)

2. Answer any one of the following questions :
- (a) Outline any two differences between sample survey and census survey.
 - (b) What is multistage random sampling? Mention any one merit of multistage random sampling.
3. Answer any one of the following questions :
- (a) Discuss the method of random sampling with its types.
 - (b) Distinguish between questionnaire and schedule. Mention any two criteria of a good questionnaire.

UNIT—II

4. Answer any three of the following as directed :
- (a) Name any two types of diagrams used in statistics.
 - (b) What is the total angle of a circle that represents 100% of the data?
 - (i) 360 degrees
 - (ii) 180 degrees
 - (iii) 270 degrees
 - (iv) 90 degrees

(Choose the correct answer)

(Continued)

(3)

5. In a histogram, what does the area of each bar represent?

- (i) The class limit of the data
- (ii) The width of the class interval
- (iii) The frequency of the class interval
- (iv) The cumulative frequency of the class interval

(Choose the correct answer)

(d) Mention any one merit of diagrammatic presentation.

5. Answer any one of the following questions : 2

- (a) Mention two uses of graphs in analyzing data.
- (b) Draw histogram for the following data :

x :	10-20	20-30	30-40	40-50	50-60
f :	3	7	10	6	4

6. Answer any one of the following questions : 5

- (a) Explain the advantages of diagram in presenting data.
- (b) Draw a pie chart using the following data :

Food	: 2000
Clothing	: 1500
Housing	: 1000
Others	: 500

(Turn Over)

(4)

UNIT—III

7. Answer any three of the following questions : 1×3=3

- (a) Mention one merit of median.
- (b) What are the measures of central tendency?
- (c) Define standard deviation.
- (d) What is the main use of Lorenz curve?

8. Answer any one of the following questions : 2

- (a) Mention two uses of median.
- (b) What is dispersion? What is the main purpose of the measures of dispersion?

9. Answer any one of the following questions : 5

- (a) Define mode. Mention the merits and demerits of mode as a measure of central value. 1+4=5

- (b) Calculate coefficient of variation from the following data :

x :	0-10	10-20	20-30	30-40	40-50	50-60
f :	2	8	10	5	3	2

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(Continued)

(5)

UNIT—IV

10. Answer any three of the following questions : 1×3=3

- (a) What is regression coefficient?
- (b) What is the range of Spearman's rank correlation coefficient?
- (c) Mention one use of rank correlation.
- (d) Mention one use of regression.

11. Answer any one of the following questions : 2

- (a) Mention any two features of correlation coefficient.
- (b) Outline two uses of regression analysis.

12. Answer any one of the following questions : 5

- (a) Distinguish between correlation and regression.

(Turn Over)

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(6)

- (b) Calculate the correlation coefficient between the number of hours studied (X) and examination score (Y).

Hours Studied (X)	Exam. Score (Y)
4	30
5	50
6	70
7	80
8	90

Also interpret the result.

UNIT—V

13. Answer any three of the following questions : 1×3=3

- (a) What is point estimation?
- (b) State the formula for the standard error of the mean.
- (c) What is type I error?
- (d) What is parameter?

14. Answer any one of the following questions : 2

- (a) Distinguish between point estimation and interval estimation.
- (b) What is sampling distribution?

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(Continued) 26J—1800/773

(7)

- Answer any one of the following questions : 5
- (a) Discuss the steps involved in hypothesis testing for a large sample.

- (b) A sample of size 64 is drawn from a population with $SD = 8$ and $\bar{x} = 50$. Construct a 95% confidence interval for the population mean.



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