

**2025/FYUG/ODD/SEM/
STASEC-101T/036**

FYUG Odd Semester Exam., 2025

STATISTICS

(1st Semester)

Course No. : STASEC-101T

(Data Analysis Using Microsoft Excel)

Full Marks : 50

Pass Marks : 20

Time : 2 hours

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

UNIT—I

1. Answer any *three* questions from the following : $1 \times 3 = 3$

- (a) What is the use of the Remove Duplicates feature in Excel?
- (b) Write any two advantages of using Excel.
- (c) Name the function used to find the maximum value in a range of data.
- (d) How do you generate a random number between 1 and 100 in Excel?

2.

Answer any one question from the following:

- (a) What steps would you follow to find missing data in Excel?
- (b) Explain the functions COUNT and CONCAT.

3.

Answer any one question from the following:

- (a) Explain the process of importing and exporting data in Excel with examples.
- (b) Discuss sorting and filtering of data in Excel. Illustrate with suitable examples.

UNIT—II

4.

Answer any three questions from the following:

- (a) Write the Excel option to add trend line in a graph.
- (b) What is a scatter plot used for?
- (c) Define frequency polygon.
- (d) What type of interpretation can be made using a line diagram?

5.

Answer any one question from the following:

- (a) Write the steps to add axis labels and chart title in Excel.
- (b) What are the differences between a bar chart and a line chart?

(3)

6.

Answer any one question from the following:

- (a) Explain how frequency polygons and ogives can be created in Excel and used to locate the median of a data set.
- (b) Write down the steps for drawing the following:
 - (i) Ogive (both less than and more than type)
 - (ii) Histogram
 - (iii) Bar diagram
 - (iv) Pie diagram
 - (v) Line diagram

UNIT—III

7. Answer any three questions from the following:

- (a) Which function in Excel is used to compute standard deviation?
- (b) What is meant by skewness of a data set?
- (c) What is range? Write down the formula for computing rank in Excel.
- (d) Write down the formula to compute third quartile in Excel.

8. Answer any one question from the following:

(a) Distinguish between variance and sample variance in Excel.

(b) Write down the steps to skewness and kurtosis in Excel.

9. Answer any one question from the following:

(a) Using Excel, explain how to compute the following from data stored in cells B1 : B100 :

(i) Mean

(ii) Median

(iii) Mode

(iv) Variance

(v) Coefficient of variation

(b) Which function is used to compute absolute deviation? Write down the formula for computing standard deviation and mean deviation for values present in the cells D1 : D115 in Excel.

UNIT—IV

10. Answer any three questions from the following :

(a) What is meant by regression analysis?

(b) Define R^2 . Mention its uses.

(c) Which Excel function is used to fit a straight line to data?

(d) What is the difference between R^2 and adjusted R^2 ?

11. Answer any one question from the following:

(a) Explain how to fit a scatter plot in Excel.

(b) Differentiate between dependent variable and independent variable in regression analysis.

12. Answer any one question from the following:

(a) Discuss the process of fitting higher order polynomials in Excel. How to assess the goodness of fit?

(b) Suppose you have data on X (cost) and Y (sales). Describe the steps to fit a simple linear regression line in Excel and interpret the output.

UNIT—V

13. Answer any three questions from the following :

(a) What is the use of the VLOOKUP function?

(b) Name any one application of Pivot tables in data analysis.

- (c) Define Spearman rank correlation
(d) Write the general syntax of VLOOKUP function.

14. Answer any one question from the following or

- (a) Differentiate between logical operators and relational operators in Excel with an example.
(b) Explain how to calculate correlation coefficient for the data present in cells A1 to A10 and C1 to C10.

15. Answer any one question from the following:

- (a) Explain with an example how to use VLOOKUP to merge two data sets in Excel.
(b) Write down the formula for computing Spearman rank correlation. Explain different steps to compute Spearman rank correlation in Excel.

FYUG Odd Semester Exam., 2025

STATISTICS

(1st Semester)

Course No. : STADSM-101T

(Basic Statistics and Probability)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

UNIT—I

1. Answer any two questions from the following : 2×2=4

- (a) What is frequency distribution?
(b) Define qualitative and quantitative data.
(c) State any two uses of statistics.