

2024/FYUG/ODD/SEM/
STASEC-101T/147

FYUG Odd Semester Exam., 2024

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* from the following
questions : 1×3=3

- (a) What is Microsoft Excel?
- (b) Write any two advantages of Excel.
- (c) Write any two uses of Excel.
- (d) How does AutoFill function work in Excel?

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(Turn Over)

2. Answer any one from the following questions : 2
- (a) Explain the functions COUNTA, COUNTBLANK, IF and MAX.
 - (b) Why is data cleaning important? Also write different ways to clean data in Excel.

3. Answer any one from the following questions : 5
- (a) What is data importing? Write down different ways to import data in Excel.
 - (b) How can missing data cause some inconsistency in data analysis? Write different ways in which we can handle missing data in Excel.

UNIT—II

4. Answer any three from the following questions : 1×3=3
- (a) Define bar diagram.
 - (b) Write down the difference between less than and more than type ogive.
 - (c) Write down the steps to draw line diagram in Excel.
 - (d) Define frequency polygon.

5. Answer any one from the following questions : 2
- (a) Define Boxplot. How to draw pie diagram in Excel?
 - (b) How to add 'axis title', 'chart title', 'data labels' and 'legend' in Excel?

6. Answer any one from the following questions : 5
- (a) What is data visualization? How to label axis, change font, change colour of any chart in Excel?
 - (b) How to locate median in Excel? Also write down the steps to draw (i) bar diagram, (ii) histogram, (iii) pie diagram and (iv) ogive (both less than and more than type).

UNIT—III

7. Answer any three from the following questions : 1×3=3
- (a) Define skewness and kurtosis.
 - (b) Define interquartile range.

- (c) Write down the method for computing first quartile in Excel.
- (d) Write the method for finding coefficient of variation.
8. Answer any one from the following questions : 2
- (a) What is percentile? Write down the steps to compute percentile in Excel for the data present in cell A1 to A100. (Compute 57th and 97th percentile).
- (b) Define variance and standard deviation. Also write the steps to compute variance in Excel for the data present in the cell B1 to B25.
9. Answer any one from the following questions : 5
- (a) Write down the steps to compute (any five) (i) mean, (ii) median, (iii) mode, (iv) range, (v) coefficient of variation, (vi) quartiles and (vii) inter-quartile range in Excel for the data present in the cell B1 to B100.
- (b) Which function is used to compute absolute deviation? Explain the steps to compute skewness and kurtosis in Excel. Also write down the theoretical formula for computing mean, median and mode.

UNIT—IV

10. Answer any three from the following questions : $1 \times 3 = 3$
- (a) If $R^2 = 0.60$, then what does it mean?
- (b) Write down the range of R^2 .
- (c) Write one limitation of R^2 .
- (d) How is adjusted R^2 better than R^2 ?
11. Answer any one from the following questions : 2
- (a) Write a note on adjusted R^2 .
- (b) Write down the steps to fit a scatter plot in Excel.
12. Answer any one from the following questions : 5
- (a) Write down the standard equation for multiple linear regression. Also write down the steps to fit multiple linear regression for the data present in the cell B1 to B10 for dependent variable and C1 to C10, D1 to D10, E1 to E10, F1 to F10 for independent variables.
- (b) Write the equation for straight line. Explain the procedure to find best fitted model among linear, exponential, polynomial and power in Excel.

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UNIT—V

13. Answer any *three* from the following questions as directed : 1×3=3

- (a) Write down the function for computing covariance in Excel.
- (b) What is the application of VLOOKUP function?
- (c) Write down the application of 'IFERROR' function in Excel.
- (d) = NOT (A1 > 125) will return true if _____.

(Fill in the blank)

14. Answer any *one* from the following questions : 2

- (a) Define correlation. Write down the formula used in Excel to compute correlation for the data present in the cell A1 to A5 and B1 to B5.
- (b) Write down the purpose of using relational operators in Excel. Explain any three relational operators used in Excel.

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(Continued)

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15. Answer any *one* from the following questions : 5

- (a) What is pivot table? Explain briefly about different applications of pivot table.
- (b) Write down the formula for computing Spearman rank correlation. Explain different steps to compute Spearman rank correlation in Excel. Also write down the range of Spearman rank correlation.

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