

Gurudas College

Internal Assessment Examination, 2021-22

Subject-CEMA, SEM-V

Paper- DSE-A-2

Time: 30 Minutes

Full Marks: 10

Answer any five questions, each question carries 2 marks.

1. Show that 68.3% area under Gaussian distribution falls within one standard deviation about mean.
2. What is correlation coefficient? Give the excel syntax for it.
3. Which algorithm does LINEST in excel use? What will be the LINEST syntax to obtain the intercept information of the best fitted line passing through a given set of (x, y) value?
4. Discuss how one can solve two simultaneous algebraic linear equations using goal seek function of excel.
5. Which algorithm does goal seek use? How many variables can be solved using excel solver?
6. Write complete FORTRAN program for calculating n! ?
7. What is the difference between FUNCTION and SUBROUTINE in FORTRAN?
8. Write a FORTRAN program to calculate a piece-wise function defined as,
$$F(x) = 0 \text{ if } x \leq 0$$
$$= x(x-5)(x-7) \text{ if } 0 \leq x \leq 5$$
$$= (x-5)(x-7)(x-10) \text{ if } 5 \leq x \leq 7.$$
9. Give proper syntax for printing the elements of a 2-dimensional array row-wise and column-wise. Name the type of loops in each case.