(FOR THE CANDIDATES ADMITTED DURING THE ACADEMIC YEAR 2022 ONLY)

22PMS1E1

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS: DECEMBER-2022

COURSE NAME : M.Sc.-MATHEMATICS **MAXIMUM MARKS: 50**

SEMESTER: I **TIME: 3 HOURS**

MAT LAB

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.
MULTIPLE CHOICE QUESTIONS. (K1)

1. _____ command displays a list of the variables currently in the memory.
   (a) Whos (b) who (c) sort (d) ans
2. _____ command can be used to display output on the screen.
   (a) disp() (b) fopen (c) fprintf (d) fclosed
3. The two vectors_____ number of elements. When the plot command is executed,
   (a) Same (b) different (c) empty (d) negative
4. _____loop is the conditional entry statement.
   (a) for-end (b) continue (c) While-end loop (d) break
5. The degree of $f(x) = 6$ is _____.
   (a) 1 (b) 0 (c) 2 (d) ∞

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES (K2)

6. Write any two rounding functions.
7. Write the function definition line.
8. Write any two mesh and surface plots.
9. Write the syntax of for-end loop.
10. What is called interpolation?

SECTION – B (5 X 3 = 15 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11 a) Explain the arithmetic operators with scalars.

(OR)

b) Use matrix operations to solve the following system of linear equations
$4x - 2y + 6z = 8\,;\, 2x + 8y + 2z = 4\,;\; 6x + 10y + 3z = 0$

12.a) Explain saving of files with example.

(OR)

b) Write a program to create a function file.

13.a) Discuss about plot command with an example.

(OR)

b) Explain plots with special graphics.

14a) Explain the command statement with an examples

(OR)

b) Analyze the relational operators with an example

15a) Comment one dimensional interpolation with examples

(OR)

b) Explain the derivation of polynomials with an example

SECTION – C (5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K4 (Or) K5)

16.a) Explain built in array functions.

(OR)

b) Explain the creation of one dimensional array

17a) Explain output commands.

(OR)

b) Briefly explain scripts files.

18. a) Explain the formatting a plot.

(OR)

b) Explain mesh and surface plots.

19.a) Explain nested loops and nested conditional statements.

(OR)

b) Explain the break and continue commands.

20a) Explain addition, multiplication and division of polynomials.

(OR)

b) Explain Curve Fitting with Polynomials.

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