Started on	Wednesday, 27 December 2023, 12:31 PM
State	Finished
Completed on	Wednesday, 27 December 2023, 12:50 PM
Time taken	19 mins 35 secs
Grade	**26** out of 30 (**87**%)

Question 1

Correct

Mark 2 out of 2

Matrix addition and matrix multiplication both are commutative.

- True
- False ✔

The correct answer is 'False'.

Question 2

Correct

Mark 2 out of 2

Cramer's Rule is not suitable for which type of problems?

- a. None
- b. Small systems with 4 unknowns
- c. Systems with two unknowns
- d. Large Systems ✔

Your answer is correct.

The correct answer is:
Large Systems

Question 3

Correct

Mark 2 out of 2

Find the values of x, y, z in the following system of equations by Gauss Elimination Method.

```
2x + y – 3z = -10
-2y + z = -2
z = 6
```

a. 3,4,6

b. 2,7,6

c. None

d. 2,4,6 ✔

Your answer is correct.

The correct answer is:
2,4,6

Question 4

Correct

Mark 2 out of 2

if X,Y,Z, are square matrices of (nxn) and
$X = YZY^{-1}$ *then* $\det(X) = Det(Z)$

True ✔

False

The correct answer is 'True'.

Question 5

Correct

Mark 2 out of 2

The equation f(x) is given as x^2-4=0. Considering the initial approximation at x=6 then the value of next approximation correct upto 2 decimal places is given as _____

- a. None
- b. 3.33 ✔
- c. 1.33
- d. 2.33
- e. 4.33

Your answer is correct.

The correct answer is:
3.33

Question 6

Incorrect

Mark 0 out of 2

If a function is real and continuous in the region from a to b and f(a) and f(b) have opposite signs then there is no real root between a and b.

- True ✖
- False

The correct answer is 'False'.

Question 7

Correct

Mark 2 out of 2

The solution of $x^2+4=0$ is

- a. +2 or -2
- b. None ✔
- c. -2
- d. 2

Your answer is correct.

The correct answer is:
None

Question 8

Correct

Mark 2 out of 2

The solution to the equation

$x^2 - 5x + 6 = 0$

- a. 3
- b. 2 and 3 ✔
- c. 2
- d. No solution

Your answer is correct.

The correct answer is:
2 and 3

Question 9

Correct

Mark 2 out of 2

The equation f(x) is given as $x^3 - x^2 + 4x - 4 = 0$. Considering the initial approximation at x=2 then the value of next approximation correct upto 2 decimal places is given as _____

- a. 1.33 ✔
- b. None
- c. 1.5
- d. 0.67
- e. 1.00

Your answer is correct.

The correct answer is:
1.33

Question 10

Correct

Mark 2 out of 2

The tangent Method is called--------

a. None

b. Bisection

c. Newton Method ✔

d. Secant Method

Your answer is correct.

The correct answer is:
Newton Method

Question 11

Incorrect

Mark 0 out of 2

Determine the number of solutions of L.S.

x-y=12

x+y=0

a. many solutions

b. no solution ✖

c. one solution

d. None

Your answer is incorrect.

The correct answer is:
one solution

Question 12

Correct

Mark 2 out of 2

The Det of a matrix M= $\begin{bmatrix} 0 & 4 & 0 \\ 2 & 50 & 2 \\ 1 & -2 & -8 \end{bmatrix}$

- a. 70
- b. 72 ✔
- c. 50
- d. None

Your answer is correct.

The correct answer is:
72

Question 13

Correct

Mark 2 out of 2

for a system of m linear equations and n variables Cramer's Rule is applicable when

- a. None
- b. m=n and Coefficient matrix is singular
- c. m<>n only
- d. m=n and Coefficient matrix is non singular ✔

Your answer is correct.

The correct answer is:
m=n and Coefficient matrix is non singular

Question 14

Correct

Mark 2 out of 2

given the following function f(x) on the interval [2,5] the first iteration using the bisection method f(m) is

$5x^2 - 5x + 4$

a. 0.687

b. 2.25

c. Bisection Cannot be applied ✔

d. -0.687

Your answer is correct.

The correct answer is:
Bisection Cannot be applied

Question 15

Correct

Mark 2 out of 2

The addition of matrices is only possible if they are of the same order.

True ✔

False

The correct answer is 'True'.