

1: newton Rapsons method is also know as

Cord method

Tangent method

Daiameter method

Secant method

2:Matrix which doesnot have an inverse by solving it is known as

Singular

Non singular

Linear

Unidentified

3:In newton Rapson method the curve $f(x)$ is constant then

$$F(x)=0$$

$$F'(x)=c$$

$$F''(X)=0$$

$$F'(x)=0$$

4:The bisection method is also known as

Binary chopping

Quarternery chopping

Tri region chopping

Hex region chopping

5:what is the percentage decrease in an interval containing root after iteration is applied by Bisection Method?

20%

30%

40%

50%

6: The algorithm provided to find the roots of the functions using Bisection method is given by:

Bolzaon's theorem

Mean value theorem

Secant theorem

7: The bisection method has which of the following convergences:

Cubic

Quadratic

Linear

Quarternery

8: Newton-Grejoy forward interpolation formula can be used:

For unequally interval

Only for unequally spaced interval

For both equall and unequally spaced intervals

Only for equally spaced interval

9: The order of errors of simpsons rule for numerical integration with a step size h is:

H

H^2

H^3

H^4

10: polynomials are the most commonly used functions for interpolations because they are easy to:

Evaluate

Differentiate

Integrate

All

11: The total number of roots of an algebraic equation is equal to:

Its degree

Its coefficient

Number of equations

No of above

12: If equation of lines l_1 and l_2 are overlapping each other then they have:

Inconsistent

Exactly one solution

Infinitely many solutions and consistent

Infinitely many solutions and consistent

13: Interpolations method can be:

Linear interpolation

Peicewise interpolation

Polynomial interpolation

All of the above

14:Lagranges interpolation can be used to interpolate with interval:

Equal

Unequal

Both equal and unequal

Closed

15:if the value of derivative is required near the end of table then we use:

Newtons backward interpolation

Newtons forward interpolation

Lagranges interpolation

Gauss forward forward formula

15:True error is defined as:

Present approximation-previous approximation

True value-approximate value

Present approximation-previous approximation

True value -approximate value

16:when should extrapolation be used:

WHEN THERE IS A NEED TO ESTIMATE VALUES WITHIN THE GIVEN DATA RANGE

WHEN THERE IS A NEED TO ESTIMATE VALUES OUTSIDED THE GIVEN DATA RANGE

EXTRAPOLATION SHOULD NOT BE USED AS IT IS UNRELIABLE

EXTRAPOLATION SHOULD ONLY BE USED FOR QUALITATIVE ANALYSIS

17: WHAT IS THE ROOT OF A NON-LINEAR EQUATION

A VALUE THAT SATISFIES THE EQUATION WHEN SUBSTITUTED

A VALUE THAT DOES NOT SATISFY THE EQUATION WHEN
SUBSTITUTED

A VALUE THAT MINIMIZES THE EQUATION

A Value that maximizes the equation

18: what is the main advantage of using Simpson's rule or the trapezoidal rule for numerical integration:

Simpson's rule provides more approximation

Simpson's rule is easier to implement

Simpson's rule works for any type of function

Simpson's rule requires fewer function evaluations

19: which of the following statements is true regarding the consistency of a system of equations:

Inconsistent systems have no solutions

Inconsistent systems have infinite solutions

Inconsistent systems have unique solutions

Inconsistent systems are not solvable

20: what is the minimum number of equations needed to solve the system of 2 variables

2

3

Depend on the coefficient

21: in the bisection method interval is halved until

The function value at the midpoint is zero

The function value at the midpoint is positive

Negative

The interval length becomes zero

22: what does it mean if the row in the augmented matrix is all zeros except for the last column

The system has no solutions

The system has infinite solutions

The system has unique solutions

The determinant is zero

22: what is the angle between two vectors with dot product is zero

0 degree

90 degree

180 degree

None

23: bisection method is an example of

Iterative method

Closed form method

Numerical differential method

Matrix inversion method

24: what is the advantage of false position method over the other root finding methods:

It guarantees convergence to the exact root\

It requires fewer function iterations

It works for any type of function

It provides a closed form solution

25: which of the following is the requirement for applying the Newton-Raphson method:

The function must be continuous

The function must be differentiable

The function must be linear

The function must be polynomial

26: what is the magnitude of a null vector

0

1

Undefined

Infinite

27: if the scalar triple product of three vectors is negative it means that

The vectors are coplanar

The vectors are linearly independent

The vectors are perpendicular

The vector are non coplanar

28:the scalar triple product of three vector can be used to determine

The angle between the vector

The area of parallelogram formed by the vector

The magnitude of the cross product of the vector

The magnitude of the dot product of the vector

29:Romberg's integration method is used to approximate the value of

Derivative

Definite integral

Indefinite integrals

Partial derivative

30:what does it mean if the determinant of the matrix is zero

The matrix is non invertible

Matrix is singular

Matrix has infinitely many solutions

Matrix has no solutions

31:what is the determinant of diagonal matrix

1

The product of its diagonal elements

0

The sum of its diagonal elements

32:which of the following interpolations method uses piecewise linear functions to approximate the data points

Lagranges interpolation

Newtons divided difference interpolation

Hermite interpolation

Linear spline interpolation

33:which is true about matrix multiplication

It is commutative

It is associative

Both a and b

None of these

34:two vectors having the same initial points are called

Colinear vector

Parallel vector

Coinitial vector

Equal vector

35:gauss sedial method is also termed as

Iterations

False position

Successive displacement

Elimination

35:for interpolations with unequal intervals we can use to get the derivative value

Newton forward interpolation method

Newton backward interpolation method

Newton forward difference formula

Lagrange interpolation formula

36: the technique for computing the value of functions outside the given argument is called

Extrapolation

Interpolation

Partial fraction

Inverse interpolation