

1. The sum of deviation of the actual values of Y and the computed values of Y is _____.
 - A. 0
 - B. 1
 - C. Maximum
 - D. Minimum

2. In the function $y = f(x)$, the independent variable x is called _____.
 - A. entry
 - B. argument
 - C. intermediate
 - D. interpolation

3. The relationship between E and delta is _____.
 - A. $E = 1 - \delta$
 - B. $E = 1 + \delta$
 - C. $E = \delta - 1$
 - D. $E = \delta$

4. The relationship between E and small delta is _____.
 - A. small delta = $1 - E$
 - B. small delta = $E - 1$
 - C. small delta = $(E - 1) - 1$
 - D. small delta = $E^{(1/2)} - E^{(-1/2)}$

5. Choose the correct one.
 - A. $E = ehD = 1 - \delta$
 - B. $E = ehD = 1 + \delta$
 - C. $E = e - hD = 1 + \delta$
 - D. $E = 1 / ehD = 1 / 1 + \delta$

6. In the function $y = f(x)$, the dependent variable y is called _____.
 - A. entry
 - B. argument
 - C. intermediate
 - D. interpolation

7. Iteration method is a _____ method
 - A. direct
 - B. indirect
 - C. self correcting
 - D. step by step

8. Gauss Elimination Method & Gauss Jordan Methods are_____methods.
- A. direct
 - B. indirect
 - C. self correcting
 - D. step by step
9. The rate of convergence of Gauss Seidel Method is_____that of Gauss Jacobi Method.
- A. once
 - B. twice
 - C. thrice
 - D. reciprocal
10. _____method is very fast compared to other methods.
- A. Gauss Elimination
 - B. Gauss Jordan
 - C. Gauss Seidel
 - D. Gauss Jacobi
11. The order of convergence of Regula-Falsi method is_____.
- A. 2
 - B. 1.172
 - C. 1.618
 - D. 1.17
12. The Newton Raphson Method is also called_____.
- A. Bolzano's Bisection Method
 - B. Iterative Method
 - C. Method of Tangents
 - D. Newton's Method
13. The order of Newton Raphson Method is_____.
- A. 1
 - B. 2
 - C. 3
 - D. 4
14. The modification of Gauss Elimination Method is_____.
- A. Gauss Jordan Method
 - B. Gauss Jacobi Method
 - C. Gauss Elimination Method
 - D. Gauss Seidel Method

15. If α, β, γ are the roots of the equation $x^3 - 14x + 8 = 0$, then product of the roots is _____.

- A. -8
- B. -18
- C. 28
- D. 38

16. _____ method is used for finding the dominant Eigen-value of a matrix.

- A. Gauss Elimination Method
- B. Gauss Jordan Method
- C. Newton Raphson Method
- D. Power method

17. Euler corrector is _____.

- A. $Y_{n+1} = Y_n + hY_n$.
- B. $Y_{n+1} = Y_n + h/2(Y_n + Y_{n+1})$
- C. $Y_{n+1} = Y_n + h/2(Y'_n + Y'_{n+1})$
- D. $Y_{n+1} = Y'_n - hY'_n$

18. Let f is _____ on (a, b) and $f(a) < f(b)$. Then bisection method generates a sequence $\{P_n\}$ approximating a zero p of f with $|P_n - p|$ less than or equal to $(b-a)/2^n$, n greater than or equal to 1.

- A. continuous function
- B. discontinuous function
- C. constant function
- D. multivariate function

19. In Euler's method: Given initial value problem $y' = dy/dx = f(x, y)$ with $y(x_0) = y_0$, then approximation is given by _____.

- A. $y_{n+1} = y_n + hf(x_{n-1}, y_{n-1})$
- B. $y_{n+1} = y_n + hf(x_n, y_n)$
- C. $y_{n+1} = y_n + hf(x_{n-1}, y_n)$
- D. $y_{n+1} = y_n + hf(x_n, y_{n-1})$

20. $y(x+h) = y(x) + h f(x, y)$ is referred as _____ method.

- A. Euler
- B. Modified Euler
- C. Taylor's Series
- D. Runge-Kutta

21. When more than one value is involved then the problem is known as _____.

- A. initial Value Problem.
- B. boundary Value Problem
- C. interpolation
- D. extrapolation

22. The error in the trapezoidal rule is of the order_____.

- A. h
- B. h^2
- C. h^3
- D. h^4

23. A smooth curve that can be drawn to pass through near the plotted points is called_____.

- A. curve fit
- B. approximating curve
- C. empirical curve
- D. lineare

curve

24. The equation of approximate curve taken as an approximate relation between x and y is called_____.

- A. curve fit
- B. approximating curve
- C. empirical relation
- D. linear

form

25. The general problem of finding equations of approximating curves which fit a given data is called_____.

- A. curve fitting
- B. approximating curve
- C. empirical relation
- d. linear form