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Unit 1 - UNIT - I : Transcendental Polynomial & Simultaneous equations and Interpolations

Assessment -- 1

The due date for submitting this assignment has passed.

Due on 2023-04-09, 23:59 IST.

As per our records you have not submitted this assignment.

1) Which of the following method is used to find the complex roots of the given polynomial equation ***1 point***

- Graeffe's method
- Muller method
- Gauss-Seidel method
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Graeffe's method

2) Using Graffe's method, we can find for a cubic algebraic equation ***1 point***

- one root at a time
- two roots at a time
- all the roots at a time
- none of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
all the roots at a time

3) $Find\ the\ root\ of\ the\ equation\ x^3 + 2x^2 + 10x - 20 = 0, using\ Birge - Vitta\ method\ correct\ to\ 3\ decimal\ places.$ ***1 point***

- 1.369
- 1.3
- 1.36
- 1.4

No, the answer is incorrect.
Score: 0
Accepted Answers:
1.369

4) Bridge-vita method is used to solve ***1 point***

- Algebraic equations
- System of Simultaneous equations
- Differential equations
- None of the above.

No, the answer is incorrect.
Score: 0
Accepted Answers:
Algebraic equations

5) Muller's method is used to solve ***1 point***

- System of Simultaneous equations
- Algebraic equations
- Differential equations
- None of the above.

No, the answer is incorrect.
Score: 0
Accepted Answers:
Algebraic equations

6) Which method gives all the approximate roots of an equation at the end of all iterations ***1 point***

- Newton Raphson method
- Birge vieta method
- Graeffe's method
- none of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Graeffe's method

7) Which of the following method is used to find one of the roots of the given polynomial equation **1 point**

- Graeffe's method
- Muller's method
- Gauss-Seidel method
- None of the above.

No, the answer is incorrect.
Score: 0
Accepted Answers:
Muller's method

8) $Find\ the\ root\ of\ the\ equation\ x^3 - 2x - 5 = 0 (root\ lies\ between\ 2\ and\ 3)\ by\ muller's\ method.$ **1 point**

- 2.0459
- 2.0945
- 2.4059
- 2.0954

No, the answer is incorrect.
Score: 0
Accepted Answers:
2.0945

9) **1 point**
$Using\ Brige - Vieta\ method\ find\ the\ root\ of\ the\ equation\ x^4 + 2x^3 - 21x^2 - 22x + 40 = 0.\ Consider\ initial\ value\ of\ the\ root\ is\ 3.5$

- 4.1
- 3.9
- 4
- 4.01

No, the answer is incorrect.
Score: 0
Accepted Answers:
4

10) The formula used in Birge-Vieta method to find root of a polynomial equation with nth order is ------ **1 point**

- $P_{k+1} = P_k - \frac{b_n}{c_{n-1}}$
- $P_{k+1} = P_k - \frac{b_{n-1}}{c_n}$
- $P_{k+1} = P_k - \frac{b_k}{c_{n-1}}$
- $P_{k+1} = P_k - \frac{b_{k-1}}{c_k}$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$P_{k+1} = P_k - \frac{b_n}{c_{n-1}}$

11) **1 point**
$Find\ the\ root\ of\ the\ equation\ cosx = xe^x\ that\ lies\ between\ 0\ and\ 1\ correct\ to\ four\ decimal\ places\ using\ muller\ method.$

- 0.5178
- 0.52
- 0.5198
- 0.517

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.5178

12) **1 point**
$Find\ the\ negative\ root\ of\ the\ equation\ x^3 - 4x + 1 = 0, that\ lies\ between\ -3\ and\ -2\ correct\ to\ 4\ decimals\ using\ muller\ method.$

- -2.11
- -2.12
- -2.1149
- -2.1491

No, the answer is incorrect.

Score: 0
Accepted Answers:
-2.1149

13) *Using Graef f e′ s root squaring method, find the real root of the equation* $x^3 - 2x + 2 = 0$ **1 point**

- -1.7692
- -1.7962
- -1.8
- -2.0

No, the answer is incorrect.
Score: 0
Accepted Answers:
-1.7692

14) *Using Graef f e′ s root squaring method, find the roots of the equation* $x^3 + 3x^2 - 4 = 0$ **1 point**

- 1, -2, -2
- 1, 2, 2
- 2, -1, -2
- -1, -2, -2

No, the answer is incorrect.
Score: 0
Accepted Answers:
1, -2, -2

15) *Using Birge – vieta method, find a real root correct to three decimals* $x^3 - 11x^2 + 32x - 22 = 0.$ **1 point**

- 1
- -1
- 2
- 1.1

No, the answer is incorrect.
Score: 0
Accepted Answers:
1