**Instructions to Students: Read all the questions thoroughly and write down the answers.**

**This question paper contains a total of 4 parts. They are**

1. **There will be 4 questions. Each question carries 4 marks. Answer all the questions.**
2. **There will be 6 questions. Each question carries 2 marks. Answer all the questions.**
3. **There will be 7 questions. Each question carries 1 mark. Answer all the questions.**
4. **There will be 10 multiple choice questions each question carries ½ mark. Answer all the questions.**
5. **Answer all the questions. Each question carries 4 marks 4 x 4 =16**
6. **Using a graph, find the solutions for the equation 2x-y = 3, x + 4 y = 6.**
7. **Solve 5/(x-1) + 1/(y-2) = 2 and 6/(x-1) - 3/(y-2) = 1.**
8. **Show 2.874 in hierarchical manner on numerical line.**
9. **The slope of the line segment joining P (2, 5) and Q (x, 3) is 2. What is x? Check whether the (1, 5), (2, 3), (-2,-1) are collinear points or not.**
10. **Answer all the questions. Each question carries 2 marks 6 x 2 =12**
11. **Show that the 5-√ 3 is an irrational number?**
12. **Find A – B and B – A, where a = {1, 2, 3, 4, 5} B = {3, 6, 9, 12, 15}?**
13. **Where P (m) = m2-3m + 1, find P (1) and P (-1)?**
14. **Find the value of K, 2x – KY + 3 = 0 and 4 x – 6 y + 5 = 0.**
15. **Find the roots of X + 1/x = 3, x ≠ 0?**
16. **2, 2 √ 2, 4,................................... Which term will 78 be in this Geometric Series**
17. **Answer all the questions. Each question carries 1 mark 7 x 1 = 7**
18. **Raju score runs 10 runs more than Ravi's runs. Their total runs were 140. Write the correct linear equation for the data.**
19. **Write the rational number 2/5 in decimal form.**
20. **Find the value of 〖 log 〗 \_ (x) ^ (√ x).**
21. **Is √ x a polynomial? What is the reason?**
22. **Indicate 2/5 on the number line.**
23. **A = {x: X} is a factor of 24. Write it in a roster form.**
24. **Write an example of linear equation.**
25. **Answer all the questions. Each question carries 1/2 mark 10 x 1/2 = 5**
26. **If √ 3 + √ 5 is an irrational number, which of the following is true?**
27. **3 and 5 are composite numbers b. 3 or 5 is an even number**
28. **3 and 5 are prime numbers d. None**
29. **The product of zeroes of P (x) = ax2 + b x + C polynomial is \_\_\_\_\_\_?**
30. **b/a b.c/a**

**c- .c/a b/a-.d**

1. **Which polynomial P(x) divided by 61 gives a remainder of 32 and a quotient of 27 (x)?**
2. **1679. b.1664**
3. **1449. d. None**
4. **What is the zero of the factor (X-a) for f (x)?**
5. **y b. a**
6. **2a d. 2y**
7. **n (∅) =?**
8. **1 b. 0**
9. **∅ Infinity.d**
10. **x2 = 441, is the positive value of ' x '?**
11. **-21 b. 21**
12. **± 21 21√. d**
13. **Which of the following is a rational number between 3/5 and 4/5?**
14. **3/10 10/7.b**
15. **4/10 d.5/7**
16. **What is the order of 3x2 + 6?**
17. **6 b. 3**
18. **4 2 .d**
19. **Identify the point not on the Y axis.**
20. **(0,3) b. (0,-8)**
21. **(0, 6) d. (4, 0)**
22. **5, 1,-3,-7........................................ Find the 10th term in arithmetic progression?**
23. **31 41 .b**
24. **-31 d. -41**