

# 108 DAYS ONLINE COACHING DAY(108) -2/07/2020 THURSDAY

LINEAR AND QUADRATIC EQUATIONS



Name of the candidate \*

M3

Place of the candidate \*

Thiruvananthapuram

WHAT APP NUMBER (JOINED IN SAI EDUCATION ONLINE COACHING PLATFORM) \*

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Please watch the following videos and answer the following questions

<https://youtu.be/f-6E6-y3dP4>  
<https://youtu.be/btHGqCZb1BY>  
<https://youtu.be/QpOAKGDO3gg>  
<https://youtu.be/PNOjOvhGhkW>

1. What is the price of a banana? 1) A man can buy 14 bananas and 35 oranges for Rs 84. 2) With 50% discount on the price of bananas, Rs 12 would buy 4 bananas and 5 oranges. [SBI PO] \*

- a) Statement (1) alone is sufficient to answer the question.
- b) Statement (2) alone is sufficient to answer the question.
- c) If either Statement (1) or (2) alone are sufficient to answer the question.
- d) If the data even in both Statements (1) and (2) together are not sufficient to answer the question.
- e) If the data in both Statements (1) and (2) together are necessary to answer the questions.

2.  $15X^2 - 11X + 2 = 0$   $10Y^2 - 9Y + 2 = 0$  \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

3.  $10X^2 - 7X + 1 = 0$  ,  $35X^2 - 12Y + 1 = 0$  \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

4.  $X^2 - 6X - 7 = 0$  ,  $2Y^2 + 13y + 15 = 0$  \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

5.  $8X^2 - 22X + 12 = 0$  ,  $15Y^2 - 19Y + 6 = 0$  \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

$$6. 3X^2 + 17X + 10 = 0, 10Y^2 + 9Y + 2 = 0 *$$

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

$$7. X^2 - 4X - 221 = 0, Y^2 - Y - 132 = 0 *$$

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

$$8. X^2 + 31X + 228 = 0, Y^2 + 28Y + 187 = 0 *$$

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

9. I.  $2Y^2-15Y+28$  , II. X- The product of LCM and HCF of two number is 24. If the difference of the two numbers is 2, then find the numbers \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

10.  $x^2-35x+306=0$  ,  $y^2-44y+475=0$  \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

11. Rachita enters a shop to buy ice-creams, cookies and pastries. She has to buy at least 9 units of each. She buys more cookies than ice-creams and more pastries than cookies. She picks up a total of 32 items. How many cookies does she buy? [SBI CLERK] \* 1 point

- a) Either 12 or 13
- b) Either 11 or 12
- c) Either 10 or 11
- d) Either 9 or 11
- e) Either 9 or 10

12. The fare of a bus is Rs.X for the first five kilometres and Rs.13 per kilometer thereafter. If a passenger pays Rs.2,402 for a journey of 187 kilometres, what is the value of X? [SBI CLERK] \* 1 point

- a) Rs. 29
- b) Rs. 39
- c) Rs. 36
- d) Rs. 31
- e) None of these

13. The total cost of 8 buckets and 5 mugs is 92 and the total cost of 5 buckets and 8 mugs is 77. Find the cost of 2 mugs and 3 buckets. \*

1 point

- 35
- 70
- 38
- 30

14. Mohan gets 3 marks for each correct sum and loses 2 marks for each wrong sum. He attempts 30 sums and obtains 40 marks. The number of sums evolved correctly is \*

1 point

- 12
- 20
- 15
- 18

15. The cost of 10 kg of apples is equal to the cost of 24 kg of rice. The cost of 6 kg of flour equals the cost of 2 kg of rice. The cost of each kg of flour is Rs.20.50. Find the total cost of 4 kg of apples, 3 kg of rice and 5 kg of flour? \* 1 point

- A. Rs.849.40
- B. Rs.877.40
- C. Rs.901.60
- D. Rs.815.20
- E. None of these

16. The number obtained by interchanging the two digits of a two-digit number is less than the original number by 45. If the sum of the two digits of the number so obtained is 13, then what is the original number? \* 1 point

- A. 49
- B. 94
- C. 83
- D. Either (a) or (b)
- E. None of these



17. Find the value of x and y from the given equation:  $3x + 2y = 4$ ,  $8x + 5y = 9$ . \*

1 point

- $\{(2, 5)\}$
- $\{(-2, 5)\}$
- $\{(-2, 3)\}$
- $\{(1, 3)\}$

18. Find the value of the given below information Solve:  $6/x + 3/y = 11$ ,  $3/x + 9/y = 11$ . \*

1 point

- $x = 3/2, y = 1$
- $x = 3, y = 1$
- $x = 2, y = 1$
- $x = 1, y = 3$

19. The value of y in the solution of the equation  $2^{x+y} = 2^{x-y} = \sqrt{8}$  is: \*

1 point

- 0
- $1/4$
- $1/2$
- $3/4$

20. A man has some hens and cows. If the number of heads be 48 and number of feet equals 140, the number of hens will be: \*

1 point

- 26
- 24
- 23
- 22

21. I.  $3x^2 - 37x + 110 = 0$  ,II.  $6y^2 - 80y + 264 = 0$  \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

22. I.  $15x^2 + 29x + 8 = 0$  , II.  $4y^2 - 71y - 18 = 0$  \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

23. I.  $4x^2 - 13x - 17 = 0$  , II.  $60y^2 - 326y - 22 = 0$  \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

24. I.  $x^2 - 10.5x + 22.5 = 0$  , II.  $37y^2 - 49y - 186 = 0$  \*

1 point

- if  $x > y$
- if  $x \leq y$
- if  $x \geq y$
- if  $x < y$
- if  $x = y$  or relationship between  $x$  and  $y$  can't be established

25. I.  $x^2 + 5x - 84 = 0$  , II.  $y^2 + 27y + 180 = 0$  \*

1 point

- $x > y$
- $x < y$
- $x \geq y$
- $x \leq y$
- $x = y$  or relationship between  $x$  and  $y$  can't be established

**Thankyou!!!**

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