



**Bipin Nambiar**  
(SBI PO 2018)



**Shiraz Khan**  
(SBI Clerk 2018)



**Kuldeep Yadav**  
(SBI PO 2018)



**Rajat Saxena**  
(IBPS Clerk 2018)



**Anupam Tyagi**  
(IBPS PO 2018)

FRIENDS!  
WE USED **TESTZONE**  
AND CRACKED BANK EXAMS

बैंक परीक्षाओ के लिए निश्चित  
रूप से सर्वश्रेष्ठ मॉक  
टेस्ट सीरीज

IT'S YOUR TURN NOW  
TAKE A **FREE** MOCK TEST



**Smartkeeda**

The Question Bank

# Quadratic Equation Questions for SBI Clerk Pre, IBPS Clerk Pre, RBI Assistant, LIC Assistant and IBPS RRB Exams.

## Quadratic Equation Quiz 21

Directions: In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer.

1. I.  $x^2 + 5x - 84 = 0$   
II.  $y^2 + 27y + 180 = 0$

- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

2. I.  $2x^2 - 13\sqrt{3}x + 63 = 0$   
II.  $4y^2 - 32\sqrt{3}y + 189 = 0$

- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

3. I.  $x^2 + 14x + 45 = 0$   
II.  $2y^2 + 5y - 25 = 0$

- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

4. I.  $2x^2 - 37x + 135 = 0$   
II.  $2y^2 - 37y - 39 = 0$

- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

5. I.  $x^2 + 5x - 50 = 0$   
II.  $2y^2 - 11y + 15 = 0$

- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

6. I.  $6x^2 - 37x - 35 = 0$   
II.  $54y^2 + 87y + 35 = 0$

- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

7. I.  $8x^2 - 18\sqrt{3}x + 27 = 0$   
 II.  $15y^2 - 14\sqrt{3}y + 9 = 0$

- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
 E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

8. I.  $9x^2 - 39x + 40 = 0$   
 II.  $9y^2 - 30y + 16 = 0$

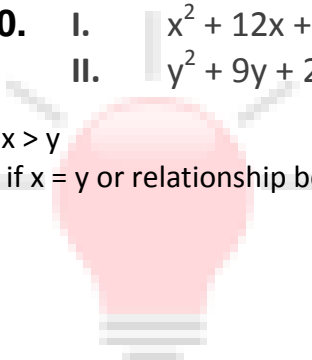
- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
 E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

9. I.  $10x^2 + 13x - 77 = 0$   
 II.  $8y^2 + 45y + 63 = 0$

- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
 E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

10. I.  $x^2 + 12x + 35 = 0$   
 II.  $y^2 + 9y + 20 = 0$

- A.  $x > y$                       B.  $x < y$                       C.  $x \geq y$                       D.  $x \leq y$   
 E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established



SmartKeeda  
The Question Bank

Correct Answers:

1	2	3	4	5	6	7	8	9	10
C	D	D	E	E	E	A	E	E	D

For more PDFs join us on Telegram

CLICK HERE



SBI | RBI | IBPS | RRB | SSC | NIACL | EPFO | UGC NET | LIC | RAILWAY | CLAT | RJS

## EXPLANATIONS:

1. I.  $x^2 + 5x - 84 = 0$   
 $x^2 + 12x - 7x - 84 = 0$   
 $x(x + 12) - 7(x + 12) = 0$   
 $(x + 12)(x - 7) = 0$   
 $x = 7, -12$

II.  $y^2 + 27y + 180 = 0$   
 $y^2 + 12y + 15y + 180 = 0$   
 $y(y + 12) + 15(y + 12) = 0$   
 $(y + 12)(y + 15) = 0$   
 $y = -12, -15$

For,  $x = -12$  and  $y = -12$   
 $x = y$

For,  $x = -12$  and  $y = -15$   
 $x > y$

For  $x = 7$  and  $y = -12$  or  $-15$   
 $x > y$

Therefore,  $x \geq y$

Hence, option C is correct.

2. I.  $2x^2 - 13\sqrt{3}x + 63 = 0$   
 $2x^2 - 6\sqrt{3}x - 7\sqrt{3}x + 63 = 0$   
 $2x(x - 3\sqrt{3}) - 7\sqrt{3}(x - 3\sqrt{3}) = 0$   
 $(2x - 7\sqrt{3})(x - 3\sqrt{3}) = 0$   
 $x = 3\sqrt{3}, 3.5\sqrt{3}$

II.  $4y^2 - 32\sqrt{3}y + 189 = 0$   
 $4y^2 - 18\sqrt{3}y - 14\sqrt{3}y + 189 = 0$   
 $2y(2y - 9\sqrt{3}) - 7\sqrt{3}(y - 9\sqrt{3}) = 0$   
 $(2y - 9\sqrt{3})(2y - 7\sqrt{3}) = 0$   
 $y = 4.5\sqrt{3}, 3.5\sqrt{3}$

Therefore,  $x \leq y$

Hence, option D is correct.



3. I.  $x^2 + 14x + 45 = 0$   
 $x^2 + 5x + 9x + 45 = 0$   
 $x(x + 5) + 9(x + 5) = 0$   
 $(x + 9)(x + 5) = 0$   
 $x = -9, -5$

II.  $2y^2 + 5y - 25 = 0$   
 $2y^2 + 10y - 5y - 25 = 0$   
 $2y(y + 5) - 5(y + 5) = 0$   
 $(2y - 5)(y + 5) = 0$   
 $y = 2.5, -5$

For  $x = -5$  and  $y = -5$   
 $x = y$

For  $x = -9$  or  $-5$  and  $y = 2.5$   
 $x < y$

For  $x = -9$  and  $y = -5$   
 $x < y$

Therefore,  $x \leq y$

Hence, option D is correct.

4. I.  $2x^2 - 37x + 135 = 0$   
 $2x^2 - 27x - 10x + 135 = 0$   
 $x(2x - 27) - 5(2x - 27) = 0$   
 $(2x - 27)(x - 5) = 0$   
 $x = 5, 13.5$

II.  $2y^2 - 37y - 39 = 0$   
 $2y^2 + 2y - 39y - 39 = 0$   
 $2y(y + 1) - 39(y + 1) = 0$   
 $(2y - 39)(y + 1) = 0$   
 $y = 19.5$  or  $-1$

For  $x = 5$  or  $13.5$  and  $y = -1$   
 $x > y$

For  $x = 5$  or  $13.5$  and  $y = 19.5$   
 $x < y$

Therefore, relationship can't be established  
Hence, option E is correct.

SmartKeeda  
The Question Bank

5. I.  $x^2 + 5x - 50 = 0$   
 $x^2 + 10x - 5x - 50 = 0$   
 $x(x + 10) - 5(x + 10) = 0$   
 $(x - 5)(x + 10) = 0$   
 $x = 5, -10$

II.  $2y^2 - 11y + 15 = 0$   
 $2y^2 - 6y - 5y + 15 = 0$   
 $2y(y - 3) - 5(y - 3) = 0$   
 $(2y - 5)(y - 3) = 0$   
 $y = 2.5, 3$

For,  $x = 5$  and  $y = 2.5$  or  $3$   
 $x > y$

But for  $x = -10$  and  $y = 2.5$  or  $3$   
 $x < y$

Therefore, relationship cannot be established

Hence, option E is correct.

6. I.  $6x^2 - 37x - 35 = 0$   
 $6x^2 + 5x - 42x - 35 = 0$   
 $x(6x + 5) - 7(6x + 5) = 0$   
 $(x - 7)(6x + 5) = 0$

$$x = 7, -\frac{5}{6}$$

II.  $54y^2 + 87y + 35 = 0$   
 $54y^2 + 42y + 45y + 35 = 0$   
 $6y(9y + 7) + 5(9y + 7) = 0$   
 $(6y + 5)(9y + 7) = 0$

$$y = -\frac{5}{6}, -\frac{7}{9}$$

Therefore, for  $x = 7$  or  $-\frac{5}{6}$  and  $y = -\frac{5}{6}$  or  $-\frac{7}{9}$

Hence, option E is correct.

7. I.  $8x^2 - 18\sqrt{3}x + 27 = 0$   
 $8x^2 - 12\sqrt{3}x - 6\sqrt{3}x + 27 = 0$   
 $4x(2x - 3\sqrt{3}) - 3\sqrt{3}(2x - 3\sqrt{3}) = 0$   
 $(2x - 3\sqrt{3})(4x - 3\sqrt{3}) = 0$   
 $x = \frac{3}{4}\sqrt{3}, \frac{3}{2}\sqrt{3}$

II.  $15y^2 - 14\sqrt{3}y + 9 = 0$   
 $15y^2 - 9\sqrt{3}y - 5\sqrt{3}y + 9 = 0$   
 $3y(5y - 3\sqrt{3}) - \sqrt{3}(5y - 3\sqrt{3}) = 0$   
 $(3y - \sqrt{3})(5y - 3\sqrt{3}) = 0$   
 $y = \frac{1}{3}\sqrt{3}, \frac{3}{5}\sqrt{3}$

For  $x = \frac{3}{4}\sqrt{3}, \frac{3}{2}\sqrt{3}$  and  $y = \frac{1}{3}\sqrt{3}, \frac{3}{5}\sqrt{3}$   
 $x > y$

Hence, option A is correct.

8. I.  $9x^2 - 39x + 40 = 0$   
 $9x^2 - 24x - 15x + 40 = 0$   
 $3x(3x - 8) - 5(3x - 8) = 0$   
 $(3x - 8)(3x - 5) = 0$   
 $x = \frac{8}{3}, \frac{5}{3}$

II.  $9y^2 - 30y + 16 = 0$   
 $9y^2 - 6y - 24y + 16 = 0$   
 $3y(3y - 2) - 8(3y - 2) = 0$   
 $(3y - 8)(3y - 2) = 0$   
 $y = \frac{8}{3}, \frac{2}{3}$

For  $x = \frac{8}{3}$  and  $y = \frac{2}{3}$   
 $x > y$

For  $x = \frac{5}{3}$  and  $y = \frac{8}{3}$   
 $x < y$

Therefore, relationship can't be established

Hence, option E is correct.

SmartKeeda  
The Question Bank

9. I.  $10x^2 + 13x - 77 = 0$   
 $10x^2 + 35x - 22x - 77 = 0$   
 $5x(2x + 7) - 11(2x + 7) = 0$   
 $(5x - 11)(2x + 7) = 0$   
 $x = \frac{11}{5}, -\frac{7}{2}$

II.  $8y^2 + 45y + 63 = 0$   
 $8y^2 + 24y + 21y + 63 = 0$   
 $8y(y + 3) + 21(y + 3) = 0$   
 $(8y + 21)(y + 3) = 0$   
 $y = -\frac{21}{8}, -3$

For  $x = -\frac{7}{2}$ , and  $y = -3$   
 $x < y$

For  $x = \frac{11}{5}$ , and  $y = -3$   
 $x > y$

Therefore, relationship can't be established

Hence, option E is correct.

10. I.  $x^2 + 12x + 35 = 0$   
 $x^2 + 7x + 5x + 35 = 0$   
 $x(x + 7) + 5(x + 7) = 0$   
 $(x + 5)(x + 7) = 0$   
 $x = -7, -5$

II.  $y^2 + 9y + 20 = 0$   
 $y^2 + 4y + 5y + 20 = 0$   
 $y(y + 4) + 5(y + 4) = 0$   
 $(y + 5)(y + 4) = 0$   
 $y = -5, -4$

For  $x = -7$  and  $y = -5$  or  $-4$   
 $x < y$

For  $x = -5$  and  $y = -5$ ,  $x = y$   
For  $x = -7$  and  $y = -4$   
Therefore,  $x \leq y$   
Hence, option D is correct.

SmartKeeda  
The Question Bank





# SmartKeeda

The Question Bank

Presents

## TestZone

India's least priced Test Series platform



### ALL BANK EXAMS

2020-2021 Test Series

@ Just

# ₹ 599/-

300+ Full Length Tests

- Brilliant Test Analysis
- Excellent Content
- Unmatched Explanations

JOIN NOW