



1 LAKH + SELECTED ASPIRANTS  
✓ CHOSE **SMARTKEEDA**

NOW IT'S YOUR TURN!

## 2024 ACHIEVERS



**MOUMITA SARKAR**  
(SBI CLERK 2024)



**ASMITA YADAV**  
(SBI CLERK 2024)



**PRIYANKA SARKAR**  
(SBI CLERK 2024)



**NAIMISHA PRESSWALA**  
(SBI CLERK 2024)



**SUYASH**  
(IBPS RRB PO 2024)



**SANGHAMITRA**  
(IBPS RRB CLERK AND  
PO 2024)



**SWATI SINGH**  
(SBI CLERK 2024)



**ANURAG KUMAR**  
(SBI CLERK 2024)



**ABHISHEK MUKHERJEE**  
(IBPS PO 2024)



**KHUSHI SIMRAN**  
(IBPS RRB PO 2024)



**AKANKSHA PATEL**  
(SBI CLERK 2024)



**ADITYA SHARAN**  
(SBI CLERK 2024)

### Best of SmartKeeda



Mock Tests



CA Mockdrill



Speed Drills



Topic Tests



Sectionals



Smart Video Course

USE CODE **FEST25** for 10% OFF

# CA MOCKDRILL PRO

भूलना मना है!

## Pro Features

- NEWS IN THE FORM OF FLASHCARDS
- CHAPTER-WISE SEGREGATION OF NEWS ON A MONTHLY BASIS
- SMART 350 NEWS ON A MONTHLY BASIS
- QUESTIONS BASED ON EACH & EVERY CRUCIAL INFO GIVEN IN NEWS
- DIGITAL, FINANCIAL AWARENESS & RBI CIRCULARS
- INCORRECT ANSWERS REAPPEAR UNTIL YOU GET THEM RIGHT
- AI-POWERED WEEKLY & MONTHLY REVISIONS
- BILINGUAL (ENG + HINDI)

 **POWER-UP  
YOUR CA**



**Warning:** Smartkeeda possesses all copyrights on its content. This doesn't allow anyone to use its content for commercial purposes. If any infringement is found, legal action will be taken against the individual or entity. If you want to use the content for commercial purposes, kindly write to us at [admin@smartkeeda.com](mailto:admin@smartkeeda.com)

## Quadratic Eqn Questions for RBI Asst. Pre, IBPS Clerk Pre and SBI Clerk Pre Exams.

### Quadratic Eqn Quiz 32

**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.  $x^2 = 81$

II.  $y^2 - 13y + 36 = 0$

A. if  $x > y$

B. if  $x \leq y$

C. if  $x \geq y$

D. if  $x < y$

E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

2. I.  $7x^2 - 9x = -2$

II.  $y^2 - 4y + 3 = 0$

A. if  $x > y$

B. if  $x \leq y$

C. if  $x \geq y$

D. if  $x < y$

E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

3. I.  $x^2 - 225 = 0$

II.  $y - \sqrt{225} = 0$

A. if  $x > y$

B. if  $x \leq y$

C. if  $x \geq y$

D. if  $x < y$

E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

4. I.  $x^2 - 9x = -20$

II.  $y^2 - 13y = -42$

A. if  $x > y$

B. if  $x \leq y$

C. if  $x \geq y$

D. if  $x < y$

E. if  $x = y$  or relationship between  $x$  and  $y$  can't be established

5. I.  $x^2 - 15x + 56 = 0$

II.  $y^2 - 11y + 30 = 0$

A. if  $x > y$   
D. if  $x < y$

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

6. I.  $x^2 + 12x + 36 = 0$

II.  $y^2 + 10y + 24 = 0$

A. if  $x > y$   
D. if  $x < y$

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

7. I.  $x^2 - 7x + 12 = 0$

II.  $4y^2 - 7y + 3 = 0$

A. if  $x > y$   
D. if  $x < y$

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

8. I.  $x^3 = 1728$

II.  $y^2 - 196 = 0$

A. if  $x > y$   
D. if  $x < y$

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

9. I.  $2x^2 + 11x + 14 = 0$

II.  $2y^2 - 5y + 3 = 0$

A. if  $x > y$   
D. if  $x < y$

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

10. I.  $x^2 - 36 = \sqrt{169}$

II.  $3y^2 - 10y + 7 = 0$

A. if  $x > y$   
D. if  $x < y$

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



[Join us](#)

[www.smartkeeda.com](http://www.smartkeeda.com) | [testzone.smartkeeda.com](http://testzone.smartkeeda.com)

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



[Join us](#)

## Correct Answers:

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

# TOPIC TEST

## Features:

- \* 900+ Tests
- \* Unlimited Retakes
- \* Detailed Analysis
- \* 9000+ Questions



Use Code: **Fest25**

**Start your basic to advance  
journey now**

Smartkeeda.com



[Join us](#)

[www.smartkeeda.com](http://www.smartkeeda.com) | [testzone.smartkeeda.com](http://testzone.smartkeeda.com)

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



[Join us](#)

### Explanation:

1. I.  $x^2 = 81$

$$x = 9, -9$$

II.  $y^2 - 13y + 36 = 0$

$$y^2 - 9y - 4y + 36 = 0$$

$$y(y - 9) - 4(y - 9) = 0$$

$$(y - 9)(y - 4) = 0$$

$$y = 9, 4$$

While comparing the root values of  $x$  and  $y$ , we find that one root value of  $y$  lies between the values of  $x$ . Therefore, the relationship between  $x$  and  $y$  can't be established.

Hence, option E is correct.

2. I.  $7x^2 - 9x = -2$

$$7x^2 - 7x - 2x + 2 = 0$$

$$7x(x - 1) - 2(x - 1) = 0$$

$$(7x - 2)(x - 1) = 0$$

$$x = \frac{2}{7}, 1$$



[Join us](#)

[www.smartkeeda.com](http://www.smartkeeda.com) | [testzone.smartkeeda.com](http://testzone.smartkeeda.com)

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



[Join us](#)

$$\text{II. } y^2 - 4y + 3 = 0$$

$$y^2 - y - 3y + 3 = 0$$

$$y(y - 1) - 3(y - 1) = 0$$

$$(y - 3)(y - 1) = 0$$

$$y = 1, 3$$

While comparing the root values of x and y, we find that one root value of y is equal to x and another one is greater than x's. Therefore,  $x \leq y$ .

Hence, option B is correct.

3. I.  $x^2 - 225 = 0$

$$x^2 = 225$$

$$x = 15, -15$$

$$\text{II. } y - \sqrt{225} = 0$$

$$y = \sqrt{225}$$

$$y = 15$$

While comparing the root values of x and y, we find that one root value of y is equal to x and another one is greater than x's. Therefore,  $x \leq y$ .

Hence, option B is correct.



[Join us](#)

[www.smartkeeda.com](http://www.smartkeeda.com) | [testzone.smartkeeda.com](http://testzone.smartkeeda.com)

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



[Join us](#)

4. I.  $x^2 - 9x = -20$

$$x^2 - 9x + 20 = 0$$

$$x^2 - 4x - 5x + 20 = 0$$

$$x(x - 4) - 5(x - 4) = 0$$

$$(x - 5)(x - 4) = 0$$

$$x = 4, 5$$

II.  $y^2 - 13y = -42$

$$y^2 - 13y + 42 = 0$$

$$y^2 - 6y - 7y + 42 = 0$$

$$y(y - 6) - 7(y - 6) = 0$$

$$(y - 7)(y - 6) = 0$$

$$y = 6, 7$$

While comparing the root values of  $x$  and  $y$ , we find that both the root values of  $x$  are less than  $y$ 's. Therefore,  $x < y$

Hence, option D is correct.

5. I.  $x^2 - 15x + 56 = 0$

$$x^2 - 7x - 8x + 56 = 0$$

$$x(x - 7) - 8(x - 7) = 0$$

$$(x - 7)(x - 8) = 0$$

$$x = 7, 8$$





$$\text{II. } y^2 - 11y + 30 = 0$$

$$y^2 - 6y - 5y + 30 = 0$$

$$y(y - 6) - 5(y - 6) = 0$$

$$(y - 6)(y - 5) = 0$$

$$y = 6, 5$$

While comparing the root values of  $x$  and  $y$ , we find that both the root values of  $x$  are greater than  $y$ 's. Therefore,  $x > y$ .

Hence, option A is correct.

6. According to the given equations :

$$\text{I. } x^2 + 12x + 36 = 0$$

$$\text{or, } x^2 + 6x + 6x + 36 = 0$$

$$\text{or, } x(x + 6) + 6(x + 6) = 0$$

$$\text{or, } (x + 6)(x + 6) = 0$$

$$\text{or, } x = -6, -6$$

$$\text{II. } y^2 + 10y + 24 = 0$$

$$\text{or, } y^2 + 4y + 6y + 24 = 0$$

$$\text{or, } y(y + 4) + 6(y + 4) = 0$$

$$\text{or, } (y + 4)(y + 6) = 0$$

$$\text{or, } y = -4, -6$$

While comparing the root values of  $x$  and  $y$ , we find that one root value of  $y$  is equal to  $x$  another one is greater than  $x$ . Therefore,  $x \leq y$ .

Hence, option B is correct.

**7.** According to the given equations :

I.  $x^2 - 7x + 12 = 0$

or,  $x^2 - 3x - 4x + 12 = 0$

or,  $x(x - 3) - 4(x - 3) = 0$

or,  $(x - 3)(x - 4) = 0$

or,  $x = 3, 4$

II.  $4y^2 - 7y + 3 = 0$

or,  $4y^2 - 4y - 3y + 3 = 0$

or,  $4y(y - 1) - 3(y - 1) = 0$

or,  $(4y - 3)(y - 1) = 0$

or,  $y = 3/4, 1$

While comparing the root values of x and y, we find that both the root values of y are less than x's . Hence,  $x > y$ .

Hence, option A is correct.

**8.** According to the given equations :

I.  $x^3 = 1728$

or,  $x^3 = 12^3$

or,  $x = 12$

II.  $y^2 - 196 = 0$

or,  $y^2 = 196$

$$\text{or, } y = \pm 14$$

$$\text{or, } y = + 14 \text{ or } - 14$$

As we can see that the root value of  $x$  is lying between the values of  $y$ . Therefore, a relationship between  $x$  and  $y$  can't be established.

Hence, option E is correct.

9. According to the given equations :

$$\text{I. } 2x^2 + 11x + 14 = 0$$

$$\text{or, } 2x^2 + 4x + 7x + 14 = 0$$

$$\text{or, } 2x(x + 2) + 7(x + 2) = 0$$

$$\text{or, } (2x + 7)(x + 2) = 0$$

$$\text{or, } x = -7/2, -2$$

$$\text{II. } 2y^2 - 5y + 3 = 0$$

$$\text{or, } 2y^2 - 2y - 3y + 3 = 0$$

$$\text{or, } 2y(y - 1) - 3(y - 1) = 0$$

$$\text{or, } (2y - 3)(y - 1) = 0$$

$$\text{or, } y = 1, 3/2 = 1.5$$

While comparing the root values of  $x$  and  $y$ , we find that both the values of  $x$  is less than  $y$ 's. Hence,  $x < y$ .

Hence, option D is correct.



[Join us](#)

[www.smartkeeda.com](http://www.smartkeeda.com) | [testzone.smartkeeda.com](http://testzone.smartkeeda.com)

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



[Join us](#)

10. According to the given equations :

I.  $x^2 - 36 = \sqrt{169}$

or,  $x^2 - 36 = 13$

or,  $x^2 = 49$

or,  $x = \pm 7$

II.  $3y^2 - 10y + 7 = 0$

or,  $3y^2 - 3y - 7y + 7 = 0$

or,  $3y(y - 1) - 7(y - 1) = 0$

or,  $(3y - 7)(y - 1) = 0$

or,  $y = 7/3, 1$

While comparing the root values of x and y, we find that both the root values of y lies between the root values x. Hence, the relation between x and y can't be established.

Hence, option E is correct.



[Join us](#)

[www.smartkeeda.com](http://www.smartkeeda.com) | [testzone.smartkeeda.com](http://testzone.smartkeeda.com)

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



[Join us](#)

 **Smartkeeda**  
presents



# **SPEED DRILLS**

India's first tool to improve

## **SPEED & ACCURACY**

in Bank Exams

Practice **40,000+** Ques in \_\_\_\_\_  
( English | Reasoning | Quant )

### **Features:**

- ◆ Improve Speed and Accuracy
- ◆ Unlimited no. of drills/quizzes
- ◆ Detailed Explanation
- ◆ AI Driven Analysis
- ◆ Topic Wise Questions

Useful For

RRB Clerk | RRB PO | IBPS Clerk |  
IBPS PO | SBI Clerk | SBI PO





**Smartkeeda**

Govt Exam Prep App

*Presents*

# Testzone

India's Leading Test Series Platform

**All Banks Exams**

**2025-26**

**12 Months Plan**

**@Just**

**Rs. 539**

To get 10% Off use code **FEST25**

- ✓ Brilliant Test Analysis
- ✓ Excellent Content
- ✓ Unmatched Explanation

**Buy Now**

