Mathematical Inequality-1

(For Bank PO)

Directions 1-35: There are two equations are given I and II. You solved them and answer

(1) if x>y

(2) if $x \geq y$

(3) if x<y

(4) if $x \leq y$

(5) if x=y or not relation make

1. I. $x^2-1=0$ II. $y^2+4y+3=0$

2. I. $x^2-7x+12=0$ II. $y^2-12y+32=0$

3. I. $x^3-371=629$ II. $y^3-543=788$

4. I. $5x+2y=31$ II. $3x+7y=36$

5. I. $2x^2+11x+12=0$ II. $5y^2+27y+10=0$

6. I. $2x^2+11x+14=0$ II. $4y^2+12y+9=0$

7. I. $x^2-4=0$ II. $y^2+6y+9=0$

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

9. I. $x^2=729$ II. $y=\sqrt{729}$

10. I. $x^4-227=398$ II. $y^2+321=346$

11. $x^2-x-12=0$ II. $y^2+5y+6=0$

12. I. $x^2-8x+15=0$ II. $y^2-3y+2=0$

13. I. $x^2-32=112$ II. $y-\sqrt{169}=0$

14. I. $x-\sqrt{121}=0$ II. $y-\sqrt{121}=0$

15. I. $x^2-16=0$ II. $y^2-9y+20=0$

16. I. $3x^2+8x+4=0$ II. $4y^2-19y+12=0$

17. I. $x^2+x-20=0$ II. $y^2-y-30=0$

18. I. $x^2-365=364$ II. $y-\sqrt{324}=\sqrt{81}$

19. I. $\frac{4}{\sqrt{x}}+\frac{7}{\sqrt{x}}=\sqrt{x}$ II. $y^2-\frac{(11)^{\frac{5}{2}}}{\sqrt{y}}=0$

20. I. $225x^2-4=0$ II. $\sqrt{225y}+2=0$

21. I. $5x^2-18x+9=0$ II. $20y^2-13y+2=0$

22. I. $x^3-878=453$ II. $y^2-82=39$

23. I. $\frac{3}{\sqrt{x}}+\frac{4}{\sqrt{x}}=\sqrt{x}$ II. $y^3-\frac{(7)^{7/2}}{\sqrt{y}}=0$

24. I. $9x-15.45=54.55+4x$ II. $\sqrt{y+155}-\sqrt{36}=\sqrt{49}$

25. I. $x^2+11x+30=0$ II. $y^2+7y+12=0$

Directions : 26-30: In the following three equations numbered I, I and III are given. You have to solve all the equations either together or 2 separately, or two together and one separately, or by any other method and :

Give answer

(1) If x<y=z

(2) If $\leq$y<z

(3) If x<y<z

(4) If x=y>z

(e) If x=y=z or if none of the above relationship is established

26. I. $7x+6y+4z=122$ II. $4x+5y+3z=88$

III. $9x+2y+z=78$

27. I. $7x+6y=110$ II. $4x+3y=59$

III. $x+z=15$

28. I. $x=\sqrt{[(36)^{1/2}\times(1296)^{1/4}}$ II. $2y+3z=33$

III. $6y+5z=71$

29. I. $8x+7y=135$ II. $5x+6y=99$

III. $9y+8z=121$

30. I. $(x+y)^3=1331$ II. $x-y+z=0$

III. $xy=28$

Directions 31-35: In each of these questions two equations I and II are given. You have to solve both the equations and

Give answer :

(1) If a<b

(2) if $a \leq b$

(c) If relationship between a and b cannot be established

(d) If $a \geq b$

(e) if $a \leq b$

31. I. $4a^2-20a+21=0$ II. $2b^2-5b+3=0$

32. I. $6a^2-25a+25=0$ II. $15b^2-16b+4=0$

33. I. $a^2=4$ II. $b^2=9$

34. I. $2a^2+3a+1=0$ II. $12b^2+7b+1=0$

35. I. $a^2+5a+6=0$ II. $b^2+3b+2=0$