Course: IBPS PO Prelims

Subject: Practice Set

Time:10 Minutes
Published Date: 20th September 2020

Directions (1 – 5) : इनमें से प्रत्येक प्रश्न में दो समीकरण I और II दिए गए हैं। दोनों समीकरणों को हल करें और उत्तर दीजिए-
(a) यदि x < y
(b) यदि x > y
(c) यदि a और b के बीच संबंध स्थापित नहीं किया जा सकता है
(d) यदि x ≥ y
(e) यदि x ≤ y

Q1. I. $x^2 - 12x + 27 = 0$
II. $y^2 + 5y - 84 = 0$
L1Difficulty 2
QTagsQuadratic Inequalities
QCreatorDeepak Rohilla

Q2. I. $x^2 - 4x - 60 = 0$
II. $y^2 - 26y + 165 = 0$
L1Difficulty 2
QTagsQuadratic Inequalities
QCreatorDeepak Rohilla

Q3. I. $x^2 = 4624$
II. $y = \sqrt{4624}$
L1Difficulty 2
QTagsQuadratic Inequalities
QCreatorDeepak Rohilla

Q4. I. $9x^2 - 27x + 14 = 0$
II. $3y^2 - 17y + 10 = 0$
L1Difficulty 2
QTagsQuadratic Inequalities
QCreatorDeepak Rohilla

Q5. I. $12x^2 + 5x - 2 = 0$
II. $8y^2 - 6y + 1 = 0$
L1Difficulty 2
QTagsQuadratic Inequalities
QCreatorDeepak Rohilla

Directions (6-10): **निम्नलिखित संख्या श्रृंखला प्रश्नों में प्रश्नवाचक चिह्न (?) के स्थान पर क्या मान आना चाहिए-**

Q6. 4, 5, 12, 39, 160, ?
(a) 840
(b) 845
(c) 694
(d) 796
(e) 805
L1Difficulty 2
QTagsMISSING SERIES Quant
QCreatorDeepak Rohilla

Q7. 5, 10, 17, 28, 45, ?
(a) 65
(b) 70
(c) 75
(d) 60
(e) 72
L1Difficulty 2
QTagsMISSING SERIES Quant
QCreatorDeepak Rohilla

Q8. 48, 26, 28, 44, 90, ?
(a) 232
(b) 229
(c) 237
(d) 227
(e) 244
L1Difficulty 2
QTagsMISSING SERIES Quant
QCreatorDeepak Rohilla

Q9. 10, 11, 24, 75, 304, ?
(a) 1506
(b) 1996
(c) 1188
(d) 1525
(e) 1750
L1Difficulty 2
QTagsMISSING SERIES Quant
QCreatorDeepak Rohilla

Q10. 14, ?, 20, 12, 26, 15

(a) 11
(b) 7
(c) 9
(d) 13
(e) None
L1Difficulty 2
QTagsMISSING SERIES Quant
QCreatorDeepak Rohilla

Directions (11 – 15): दिए गए प्रश्नों में प्रश्नवाचक चिह्न (?) के स्थान पर क्या अनुमानित मान आना चाहिए-

Q11. 270.05% of 19.99 + 29.95 × 2.01 = ? × 2
(a) 51
(b) 53
(c) 57
(d) 60
(e) 62
L1Difficulty 2
QTagsApproximation
QCreatorDeepak Rohilla

Q12. $\sqrt[3]{27.03 \times 64.07} + \sqrt{63.93 \times 6.26} = \sqrt{?\times 4}$
(a) 16
(b) 256
(c) 4
(d) 512
(e) 216
L1Difficulty 2
QTagsApproximation
QCreatorDeepak Rohilla

Q13. $16.09 \times \sqrt[3]{215.99} - \frac{23.95\times7.06}{2.93\times2.01} = \sqrt{?} + \sqrt{676.87}$
(a) 1676
(b) 1324
(c) 1764
(d) 1729
(e) 1024
L1Difficulty 2
QTagsApproximation
QCreatorDeepak Rohilla

Q14. ?% of 349.89 + $(24.87)^2$ = 67.46 + 19.99% of 2962.41
(a) 7
(b) 2

(c) 5
(d) 10
(e) 15
L1Difficulty 2
QTagsApproximation
QCreatorDeepak Rohilla

Q15. $\frac{2187.37}{(2.99)^{4.99}} + ? = \frac{124.92 \times 24.89}{(4.89)^2}$
(a) 105
(b) 116
(c) 124
(d) 135
(e) 145
L1Difficulty 2
QTagsApproximation
QCreatorDeepak Rohilla

Solutions

S1. Ans. (c)
Sol.
I. $x^2 - 12x + 27 = 0$

$$x^2 - 9x - 3x + 27 = 0$$
$$x(x - 9) - 3(x - 9) = 0$$
$$(x - 9)(x - 3) = 0$$
$$x = 3, 9$$

II. $y^2 + 5y - 84 = 0$

$$y^2 + 12y - 7y - 84 = 0$$
$$y(y + 12) - 7(y + 12) = 0$$
$$(y - 7)(y + 12) = 0$$
$$y = 7, -12$$

So, no relation

S2. Ans. (a)
Sol.
I. $x^2 - 4x - 60 = 0$

$$x^2 - 10x + 6x - 60 = 0$$
$$x(x - 10) + 6(x - 10) = 0$$
$$(x + 6)(x - 10) = 0$$
$$x = -6, 10$$

II. $y^2 - 26y + 165 = 0$

$$y^2 - 11y - 15y + 165 = 0$$
$$y(y - 11) - 15(y - 11) = 0$$

$$(y-11)(y-15)=0$$
$$y=11,15$$

So, y > x

S3. Ans. (e)
Sol.
I. $x^2=4624$

$$x=\pm 68$$

II. $y=\sqrt{4624}$

$$y=68$$

So, $y \geq x$.

S4. Ans (c)
Sol.
I. $9x^2-27x+14=0$

$$9x^2-6x-21x+14=0$$
$$3x(3x-2)-7(3x-2)=0$$
$$(3x-2)(3x-7)=0$$
$$x=\frac{2}{3},\frac{7}{3}$$

II. $3y^2-17y+10=0$

$$3y^2-15y-2y+10=0$$
$$3y(y-5)-2(y-5)=0$$
$$(3y-2)(y-5)=0$$
$$y=\frac{2}{3},5$$

So, no relation

S5. Ans.(e)
Sol.
I. $12x^2+5x-2=0$
$12x^2+8x-3x-2=0$
$4x(3x+2)-1(3x+2)=0$
$(4x-1)(3x+2)=0$
$x=\frac{1}{4}, x=\frac{-2}{3}$
II. $8y^2-6y+1=0$
$8y^2-4y-2y+1=0$
$4y(2y-1)-1(2y-1)=0$
$(4y-1)(2y-1)=0$
$y=\frac{1}{4},\frac{1}{2}$
$\therefore y \geq x$

S6. Ans. (e)

Sol.
The pattern of this series

$\times 1 + 1, \quad \times 2 + 2, \quad \times 3 + 3, \quad \times 4 + 4, \quad \times 5 + 5$ …..

So, ?= 805

S7. Ans. (b)
Sol.
The pattern of the series
+5, +7, +11, +17, +25, +35

S8. Ans. (d)
Sol.
The given pattern

$\times \frac{1}{2} + 2, \quad \times 1 + 2, \ \times \frac{3}{2} + 2, \quad \times 2 + 2$…….

?= 227

S9. Ans. (d)
Sol.
$10 \times 1 + 1 = 11$
$11 \times 2 + 2 = 24$
$24 \times 3 + 3 = 75$
$75 \times 4 + 4 = 304$
$304 \times 5 + 5 = 1525.$

S10. Ans. (c)
Sol.
$14 \div 2 + 2 = 9$
$9 \times 2 + 2 = 20$
$20 \div 2 + 2 = 12$
$12 \times 2 + 2 = 26$
$26 \div 2 + 2 = 15$

S11. Ans.(c)
Sol.

$$\frac{20 \times 270}{100} + 30 \times 2 = ? \times 2$$

$54 + 60 = ? \times 2$

$$\frac{114}{2} = ?$$

$57 = ?$

S12. Ans.(b)
Sol.

$$\sqrt[3]{27 \times 64} + \sqrt{64 \times 6.25} = \sqrt{? \times 4}$$

$$3 \times 4 + 8 \times 2.5 = \sqrt{? \times 4}$$

$\frac{32}{2} = \sqrt{?}$
? = 256

S13. Ans.(c)
Sol.
$16 \times 6 - \frac{24 \times 7}{3 \times 2} = \sqrt{?} + 26$
$96 - 4 \times 7 = \sqrt{?} + 26$
$96 - 28 - 26 = \sqrt{?}$
$96 - 54 = \sqrt{?}$
? = 1764

S14. Ans.(d)
Sol.
?% of 350 + $(25)^2$ = 67.5 + 20% of 2962.5
?% of 350 + 625 = 67.5 + $\frac{2963}{5}$
?% of 350 = 67.5 + 592.5 -625
?% of 350 = 35
? = 10

S15. Ans.(b)
Sol.
$\frac{2187}{3^5} + ? = \frac{125 \times 25}{5^2}$
$\frac{2187}{243} + ? = 125$
? = 116