

Quiz Date: 23<sup>rd</sup> August 2020

**Directions (1-5):** What should come in place of the question mark (?) in the following questions?

Q1.  $2115 \div ? = 94 \times 15$

- (a) 1.25
- (b) 2.75
- (c) 1.5
- (d) 3
- (e) 1.75

Q2.  $(13)^{54} \times (13)^{-51} = (169)^2 \times ?$

- (a) 13
- (b) 169
- (c)  $169^{-1}$
- (d)  $13^{-1}$
- (e) 17

Q3.  $748 \times ? \times 9 = 861696$

- (a) 122
- (b) 132
- (c) 128
- (d) 124
- (e) 136

Q4.  $6573 \div 21 \times (0.2)^2 = ?$

- (a) 7825
- (b) 62.5
- (c) 1565
- (d) 12.52
- (e) 125.2

Q5.  $74156 - ? - 321 - 20 + 520 = 69894$

- (a) 3451
- (b) 4441
- (c) 5401
- (d) 4531
- (e) 4414

Q6. A certain sum was invested on the simple interest but the amount becomes Rs. X in 2 years and Rs.  $1\frac{3}{8}X$  in 5 years. Then find out the rate of interest?

- (a) 20%
- (b) 18%
- (c) 16%
- (d) 25%

**BANKERS**

**adda247**

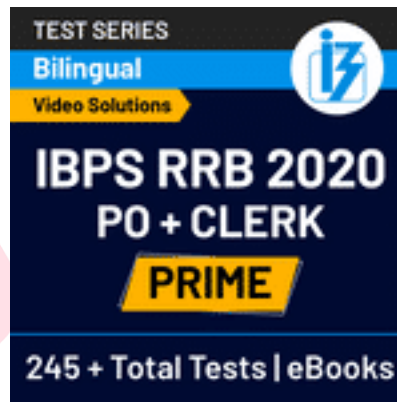
(e)  $16\frac{2}{3}\%$

Q7. A can do 45% of a piece of work in 9 days and B can do 30% of same work in 12 days. They work together 12 days and remaining work completed by C in 3 days. find out the time taken by C to complete the whole work?

- (a) 30 days
- (b) 28 days
- (c) 32 days
- (d) 33 days
- (e) 25 days

Q8. The ratio of sides of right-angle triangle is 3:4:5 and area of the triangle is  $2.940\text{ cm}^2$ . Find out the area of square if side of square is  $28\frac{4}{7}\%$  more than the hypotenus of the triangle.

- (a)  $30.25\text{ cm}^2$
- (b)  $25\text{ cm}^2$
- (c)  $20.25\text{ cm}^2$
- (d)  $16\text{ cm}^2$
- (e)  $12.25\text{ cm}^2$



Q9. A and B together as efficient as that of C. A and C together can do a piece of work in  $10\frac{10}{11}$  days and B can do same work in 24 days. If A and B work together for 12 days, then find the time taken by C to complete the remaining work?

- (a) 4 days
- (b) 3 days
- (c) 5 days
- (d) 6 days
- (e) 8 days

Q10. When an article is sold at 18% discount on mark price and the shopkeeper gets  $9\frac{1}{3}\%$  as a profit. Find out the profit percentage if no discount is allowed?

- (a)  $33\frac{2}{3}\%$
- (b)  $16\frac{2}{3}\%$
- (c)  $14\frac{2}{7}\%$

- (d)  $33\frac{1}{3}\%$   
(e)  $16\frac{1}{3}\%$

**Directions (11-12):** What will come in place of (?) in the following number series?

Q11. 12,16,32,68,132, 232,?

- (a)363  
(b)341  
(c)357  
(d)376  
(e)435

Q12. 0,1,1,3,8,5,27,7, 64, ?, 125

- (a)12  
(b)13  
(c)14  
(d)11  
(e)9

**Directions (13-15):** In the following questions, two equations in  $x$  and  $y$  are given. Solve these equations and give answer

- (a) if  $x > y$   
(b) if  $x < y$   
(c) if  $x \geq y$   
(d) if  $x \leq y$   
(e)  $x = y$  or relation cannot be established between  $x$  and  $y$

Q13. I.  $x^2 + 7x + 12 = 0$   
II.  $4y^2 = 36$

Q14. I.  $2x^2 + 5x + 3 = 0$   
II.  $y^2 + 3y + 2 = 0$

Q15. I.  $2x + 3y = 5$   
II.  $3x + 2y = 10$

### Solutions

**S1. Ans.(c)**

**Sol.**

$$? = \frac{2115}{94 \times 15} = 1.5$$

**S2. Ans.(d)**

**Sol.**

$$? = \frac{13^{54-51}}{13^4} = 13^{-1}$$

**S3. Ans.(c)**

**Sol.**

$$? = \frac{861696}{748 \times 9} = 128$$

**S4. Ans.(d)**

**Sol.**

$$? = \frac{6573 \times 0.04}{21} = 12.52$$

**S5. Ans.(b)**

**Sol.**

$$? = 74676 - 69894 - 341$$

$$= 4441$$



**S6. Ans. (e)**

**Sol.** Let P and r be sum and rate of interest respectively.

$$X = P + \frac{P \times r \times 2}{100} \text{ (for 2 years).....(1)}$$

$$\frac{11}{8}X = P + \frac{P \times r \times 5}{100} \text{ (for 5 years).....(2)}$$

From equ (2)- equ (1)

$$\frac{3Pr}{100} = \frac{3}{8}X$$

$$X = \frac{8Pr}{100}$$

From equation (1)

$$\frac{8Pr}{100} = P + \frac{P \times r \times 2}{100}$$

$$\frac{6Pr}{100} = P$$

$$r = \frac{100}{6} = 16\frac{2}{3}\%$$

**S7. Ans. (a)**

**Sol.**

A can-do complete work =  $9 \times \frac{100}{45} = 20 \text{ days}$

B can-do complete work =  $12 \times \frac{100}{30} = 40 \text{ days}$

So, 12 days work of A and B together =  $12 \left( \frac{1}{20} + \frac{1}{40} \right) = \frac{9}{10}$

Remaining work =  $\frac{1}{10}$

So, efficiency of C =  $\frac{\left(\frac{1}{10}\right)}{3} = \frac{1}{30}$

Required time to complete the same work by C = 30 days.

S8. Ans. (c)

Sol.

Area of triangle =  $\frac{1}{2} \times \text{base} \times \text{height}$

$$= \frac{1}{2} \times 3x \times 4x$$

$$2.94 = 6x^2$$

So,  $x = 0.7$

Hypotenus =  $5 \times 0.7 = 3.5 \text{ cm}$

Side of square =  $3.5 \times \frac{9}{7} = 4.5 \text{ cm}$

So, area of square =  $(4.5)^2 = 20.25 \text{ cm}^2$

S9. Ans. (b)

Sol.

Efficiency of A and B together = efficiency of C

Efficiency of A and C together =  $\frac{11}{120}$

Efficiency of B =  $\frac{1}{24}$

ATQ,

$$\frac{A+C}{B} = \frac{11}{5}$$

So, efficiency of A, B and C =  $16x$

And Efficiency of A and B together = efficiency of C =  $8x$

Efficiency of B =  $5x$

Efficiency of A =  $3x$

Let time taken by C =  $t$  days

$$12(A + B) + t \times C = 24B$$

$$t = \frac{12B - 12A}{C}$$

$$= \frac{12 \times 5x - 12 \times 3x}{8x}$$

$$= 3 \text{ days}$$

S10. Ans. (d)

Sol.

Let cost price of the article =  $100x$

Selling price of the article =  $109\frac{1}{3}x$

let mark price of the article =  $100y$

selling price of the article = 82y unit

$$\text{so, } 109\frac{1}{3}x = 82y$$

$$\text{so, ratio of marked price and cost price} = \frac{4}{3}$$

$$\text{profit percentage if no discount is allowed} = \frac{1}{3} \times 100 = 33\frac{1}{3}\%$$

S11. Ans(d)

Sol. The pattern of the series is -

$$12 + 2^2 = 16$$

$$16 + 4^2 = 32$$

$$32 + 6^2 = 68$$

$$68 + 8^2 = 132$$

$$132 + 10^2 = 232$$

$$232 + 12^2 = 376$$

S12. Ans(e)

Sol. The pattern of the series is -

Ist series - 0,1,8,27,64,125

$$0^3, 1^3, 2^3, 3^3, 4^3, 5^3$$

2<sup>nd</sup> Series - 1,3,5,7,9 (odd number)

S13. Ans.(d)

Sol.

$$\text{I. } x^2 + 7x + 12 = 0$$

$$x^2 + 4x + 3x + 12 = 0$$

$$x(x+4) + 3(x+4) = 0$$

$$(x+4)(x+3) = 0$$

$$\Rightarrow x = -3, -4$$

$$\text{II. } y^2 = 9$$

$$\Rightarrow y = \pm 3$$

$$y \geq x$$

S14. Ans.(e)

Sol.

$$\text{I. } 2x^2 + 5x + 3 = 0$$

$$\Rightarrow 2x^2 + 2x + 3x + 3 = 0$$

$$\Rightarrow (x+1)(2x+3) = 0$$

$$\Rightarrow x = -1, -\frac{3}{2}$$

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

$$\Rightarrow (y+1)(y+2) = 0$$

$$\Rightarrow y = -1, -2$$

No relation

S15. Ans.(a)

Sol.



$$(2x + 3y = 5) \times 2$$

$$(3x + 2y = 10) \times 3$$

On subtracting, we get

$$-5x = -20$$

$$\Rightarrow x = 4$$

$$\therefore y = \frac{5-8}{3}$$

$$= -1$$

$$x > y$$

**For any Banking/Insurance exam Assistance, Give a Missed call @ 01141183264**



**BANKERS**

**adda247**