

# SBI Clerk Main and RBI Assistant Main Exam 2020

Important PDF of Quantitative Aptitude



1. Two numbers are such that the sum of twice the first number and thrice the second number is 36 and the sum of thrice the first number and twice the second number is 39. Which is the smallest number?

- A. 9
- B. 5
- C. 7
- D. 3
- E. 6

2. A contractor agreed to complete a work in 90 days. He engaged 48 men for the work and after doing the work for 50 days he came to know that three-fifths of the work has already been completed. How many men should he remove to finish the work in the agreed time?

- A. 4 men
- B. 8 men
- C. 6 men
- D. 10 men
- E. None of these

3. The average of six consecutive even integers is 37. Find the average of the next five consecutive odd integers.

- A. 47
- B. 43
- C. 45
- D. 41
- E. None of these

4. A group of girls contributed the money for a trip. Each girl contributed the amount equal to eight times the number of girls they were. The total collection came to Rs 6272. How many girls were there in the group?

- A. 28
- B. 22
- C. 32
- D. 18
- E. None of these

5. Two pipes A and B can fill a tank in 15 minutes and 10 minutes respectively. Both Pipes A and B work together and it takes 2 extra minutes to fill the tank due to a leak at the bottom. Find out the time which the leak would take to empty the full tank.

- A. 30 minutes
- B. 18 minutes
- C. 24 minutes
- D. 15 minutes
- E. None of these

**Direction:** What should come in place of the question marks (?) in the following questions?

6.  $150\% \text{ of } 300 + ?\% \text{ of } 500 = 800$

- A. 60
- B. 70
- C. 50
- D. 75
- E. None of these

**Directions:** What will come in place of question mark (?) in the following question?

7.  $(341 \times 9 + 63 - 19 \times 2) \div 14 = ?$

- A. 221
- B. 313
- C. 343
- D. 317
- E. None of these

**Direction:** What value should come in place of the question mark (?) in the following question?

8.  $\frac{10 \times 15.5 - 4 \times 7.5}{10 \times 0.5} = ?$

- A. 45
- B. 55
- C. 25
- D. 35
- E. 20

**Direction:** What value should come in place of the question mark (?) in the following question?

9.  $12\% \text{ of } 150 + 62\% \text{ of } 800 = ?$

- A. 513
- B. 514
- C. 515
- D. 516
- E. 525

**Direction:** What value should come in place of question mark (?) in the following question.

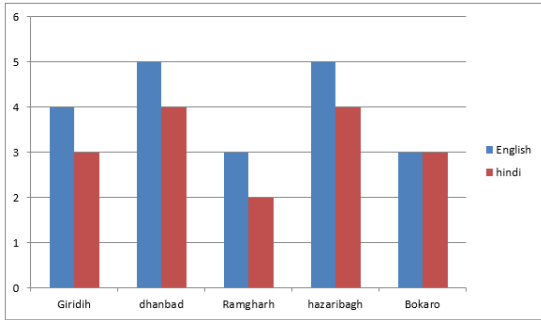
10.  $\sqrt[3]{54872} \times 304 \div 8 = (?)^2$

- A. 38
- B. 55
- C. 78
- D. 64
- E. 12

**Directions (11 – 15) :** Study the following bar graph carefully to answer the questions.

Total sale of English and Hindi Newspaper in Five Different city  
(NUMBER IN THOUSANDS)

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11. What is the difference between the total sale of English newspaper and the total sale of Hindi Newspaper in all the city together?

- A. 5000
- B. 4000
- C. 3000
- D. 6000
- E. None of these

12. The sale of English Newspapers in city Giridih is approximately what percent of the total sale of English Newspapers in all the city together?

- A. 25
- B. 20
- C. 35
- D. 15
- E. None of these

13. What is the ratio of the sale of Hindi Newspaper in city Ramgarh to the sale of Hindi Newspapers in city Bokaro?

- A. 3:4
- B. 4:3
- C. 3:2
- D. 2:3
- E. None of these

14. The sale of English Newspapers in city Dhanbad & Bokaro together is what percent of the sale of English Newspapers in city Giridih, Ramgarh and Hazaribagh together?

- A. 86.25
- B. 66.67
- C. 33.33
- D. 75
- E. None of these

15. What is the average sale of Hindi Newspapers in all the city together?

- A. 3350
- B. 3200
- C. 3150
- D. 4000
- E. None of these

**Direction:** Find the wrong term in the given series.

16. 15, 31, 61, 123, 247, 491
- A. 31
  - B. 61

- C. 123
- D. 247
- E. 491

**Direction:** Find the wrong term in the given series.

17. 3, 3, 10, 36, 100, 223
- A. 3
  - B. 10
  - C. 36
  - D. 100
  - E. 223

**Direction:** Find the wrong term in the given series.

18. 187, 175, 148, 109, 57
- A. 175
  - B. 187
  - C. 109
  - D. 57
  - E. 148

**Direction:** Find the wrong term in the given series.

19. 140, 133, 113, 86, 50, 5
- A. 133
  - B. 113
  - C. 86
  - D. 50
  - E. 140

**Direction:** Find out the wrong number in the following number series:

20. 4, 6, 12, 30, 60, 315, 1260
- A. 30
  - B. 60
  - C. 12
  - D. 4
  - E. 315

**Directions:** In the following questions two equations numbered I and II are given. You have to solve both the equations.

21. I.  $25x = 625 + (5)^2$   
 II.  $y^2 = 676$

- A.  $X > Y$
- B.  $X \geq Y$
- C.  $X < Y$
- D.  $X \leq Y$
- E.  $X = Y$  or the relationship cannot be established

**Direction:** In the following questions two equations numbered I and II are given. You have to solve both the equations.

22. I.  $12x^2 + 11x + 2 = 0$   
 II.  $12y^2 + 7y + 1 = 0$

- A.  $X > Y$
- B.  $X \geq Y$
- C.  $X < Y$
- D.  $X \leq Y$
- E.  $X = Y$  or the relationship cannot be established

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**Directions:** In the following questions two equations numbered I and II are given. You have to solve both the equations.

23. I.  $x^2 = \sqrt{16} + \sqrt{25}$

II.  $y = \text{Square root of } 9$

- A.  $X > Y$
- B.  $X \geq Y$
- C.  $X < Y$
- D.  $X \leq Y$
- E.  $X = Y$  or the relationship cannot be established

Directions: In the following questions two equations numbered I and II are given. You have to solve both the equations

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

II.  $y^2 + 13y + 42 = 0$

- A. If  $x > y$
- B. If  $x \geq y$
- C. If  $x < y$
- D. If  $x \leq y$
- E. If  $x = y$  or the relationship cannot be established

Directions: In the following questions two equations numbered I and II are given. You have to solve both the equations

25. I.  $3x^2 - 7x + 4 = 0$

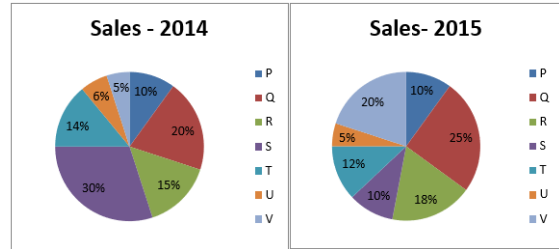
II.  $2y^2 + 5y + 2 = 0$

- A. If  $x > y$
- B. If  $x \geq y$
- C. If  $x < y$
- D. If  $x \leq y$
- E. If  $x = y$  or the relationship cannot be established

Direction (26 – 30) : Below Pie charts gives the information of company - Pk Diamonds Ltd. for the sales of two years 2014 & 2015 . Based on these charts answer the questions that follows-

**Total Sales In 2014 – \$ 12000**

**Total sales in 2015 - \$ 18000**



26. What is the percentage increase in the sales of the company in the period 2014 to 2015?

- A. 25%
- B. 50%
- C. 14%
- D. 78%
- E. 70%

27. Which product has shown the highest increase in the sales from 2014 to 2015 ?

- A. P
- B. Q
- C. R
- D. V
- E. T

28. What is the difference between the sales of Q in 2015 to 2014?

- A. \$ 700
- B. \$2100
- C. \$2800
- D. \$900
- E. \$1000

29. For how many products did the sales increase by more than 40% from 2014 to 2015?

- A. 3
- B. 4
- C. 5
- D. 6
- E. None of these

30. How much is the total sales for S for both years 2014 & 2015?

- A. \$ 5400
- B. \$ 5000
- C. \$ 4200
- D. \$ 3000
- E. \$ 4800

###ANSWERS###

1. Ans. E.

Let the two numbers be x and y

$$2x+3y=36\text{-----(1)}$$

$$3x+2y=39\text{-----(2)}$$

Equn 1\*3 and 2\*2

$$6x+9y=108$$

$$6x+4y = 78$$

Subtracting both the equations

$$5y=30$$

$$Y= 6$$

Putting the value in equation 1

$$3x+12 =39$$

$$3x=27$$

$$X=9$$

2. Ans. B.

Let each worker does 1 unit per day.

Since  $\frac{3}{5}$ th work is completed in 50 days

$\Rightarrow$  total units of work =  $48*50*\frac{5}{3}$  = 4000 units.

Remaining work =  $4000*\frac{2}{5}$  = 1600

units. 1600 units can be completed in remaining 40 days by  $1600/40 = 40$  men.

Men to lay off =  $48-40 = 8$  men.

3. Ans. A.

Let six consecutive even integers be X-5, X-3, X-1, X + 1, X + 3, X + 5

Average =  $\frac{6X}{6} = X = 37 \Rightarrow$  Numbers are 32, 34, 36, 38, 40 and 42.

Next five odd integers are 43, 45, 47, 49, and 51. Average = 47

4. Ans. A.

**Solution:-**Let number of girls be x. Each contributed = 8x

Total contribution =  $8x^2 = 6272 \Rightarrow x^2 = 784 \Rightarrow x = 28$

5. Ans. C.

**Ans. C**

LCM (15, 10) = 30 units of tank.

Pipe A fills 2 units per minute; Pipe B fills 3 units per minute.

Per minute =  $2+3 = 5$  units

Can be filled in =  $30/5 = 6$  minutes

But filled in 8 minutes

Total input water =  $8*5 = 40$  units. Hence  $40-30 = 10$  units extra water wasted by leak in 8 minutes.

Leak can empty the tank in =  $[\frac{8}{10}]*30 = 24$  minutes

6. Ans. B.

$$150\% \text{ of } 300 + ?\% \text{ of } 500 = 800$$

$$?\% \text{ of } 500 = 800 - 150\% \text{ of } 300$$

$$\frac{?}{100} \times 500 = 800 - 450$$

$$\frac{?}{100} \times 500 = 350$$

$$? = \frac{350 \times 100}{500} = 70$$

So option (b) is the correct answer.

7. Ans. A.

Let the answer be Y

$$Y = (341 \times 9 + 63 - 19 \times 2) \div 14$$

$$Y = (3069 + 63 - 38) \div 14$$

$$Y = 3094 \div 14$$

$$Y = 221$$

Hence the answer is option (A).

8. Ans. C.

$$\frac{155-30}{5} = \frac{125}{5} = 25$$

9. Ans. B.

$$\frac{12}{100} * 150 + \frac{62}{100} * 800$$

$$= 18 + 496$$

$$= 514$$

10. Ans. A.

Substituting (?) with "x"

$$38 \times 304 \div 8 = x^2$$

$$38 \times 38 = x^2$$

$$x = \sqrt{38 \times 38}$$

$$x = 38$$

11. Ans. B.

Required difference

$$= (4000 + 5000 + 3000 + 5000 + 3000) -$$

$$(3000 + 4000 + 2000 + 4000 + 3000)$$

$$= 20000 - 16000 = 4000$$

12. Ans. B.

$$\text{Required \%} = (4/4 + 5/3 + 5/3) * 100$$

$$= (4/20) * 100$$

$$= 20\%$$

13. Ans. D.

$$\text{Required ratio} = 2000:3000$$

$$= 2:3$$

14. Ans. B.

$$\text{Required \%} = \{(5+3)/(4+3+5)\} * 100$$

$$= (8/12) * 100$$

$$= 66.67\%$$

15. Ans. B.

$$\text{Required average} = (3+4+2+4+3)/5$$

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$$= (16/5) * 1000 \text{ (unit= 1000)}$$

$$= 3200$$

16. Ans. D.

$$15 * 2 + 1 = 31$$

$$31 * 2 - 1 = 61$$

$$61 * 2 + 1 = 123$$

$$123 * 2 - 1 = 245$$

$$245 * 2 + 1 = 491$$

17. Ans. D.

$$3 + 1^3 - 1 = 3$$

$$3 + 2^3 - 1 = 10$$

$$10 + 3^3 - 1 = 36$$

$$36 + 4^3 - 1 = 99$$

$$99 + 5^3 - 1 = 223$$

3, 3, 10, 36, **99**, 223

Hence, option D is correct.

18. Ans. A.

$$187 - 13 = 174$$

$$174 - 26 = 148$$

$$148 - 39 = 109$$

$$109 - 52 = 57$$

hence 175 is wrong term.

19. Ans. A.

$$140 - 9 = 131$$

$$131 - 18 = 113$$

$$113 - 27 = 86$$

$$86 - 36 = 50$$

$$50 - 45 = 5$$

140, **131**, 113, 86, 50, 5

20. Ans. B.

$$4 \times 1.5 = 6$$

$$6 \times 2 = 12$$

$$12 \times 2.5 = 30$$

$$30 \times 3 = 90$$

$$90 \times 3.5 = 315$$

$$315 \times 4 = 1260$$

So wrong number is 60

21. Ans. B.

$$I. 25x = 625 + (5)^2$$

$$x = 26$$

$$II. y^2 = 676$$

$$Y = (+26, -26)$$

So  $X \geq Y$

22. Ans. E.

$$X = -2/3, -1/4$$

$$Y = -1/3, -1/4$$

23. Ans. D.

$$I. x^2 = \sqrt{16} + \sqrt{25}$$

$$x^2 = 4 + 5 = 9$$

$$x = +3, -3$$

$$II. y = \sqrt{9}$$

$$Y = 3$$

So  $X \leq Y$

24. Ans. A.

$$X = (-4, -3)$$

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

$X > y$

25. Ans. A.

$$3x^2 - 7x + 4 = 0$$

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

$$x(3x-4) - 1(3x-4) = 0$$

$$X = (1, 4/3)$$

$$2y^2 + 5y + 2 = 0$$

$$2y^2 + 4y + y + 2 = 0$$

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

$$y = (-2, -1/2)$$

$x > y$

26. Ans. B.

As given Sales in 2014 = 12000

Sales in 2015 = 18000

So, increase is  $\rightarrow 6000/12000 = 0.5 * 100 = 50\%$

27. Ans. D.

AS from 2014 to 2015 there is increase of 50% So,

$$100 \rightarrow 150$$

$$V \text{ in } 2014 = 5\% \text{ of } 12000 = 600$$

$$V \text{ in } 2015 = 20\% \text{ of } 18000 = 3600$$

$$\text{so } \% \text{ increase} = 3600 \times 100 / 600 = 600\%$$

so V has the highest increase of 600%

28. Ans. B.

IN 2014 the number of products of Q is  $\rightarrow 20 * 12000 / 100 = 2400$

$$\text{In } 2015 \rightarrow 25 * 18000 / 100 = 4500$$

So, difference is  $4500 - 2400 = 2100$

29. Ans. B.

AS calculated the iNcrease in sales from 2014 to 2015 is 50%

$$\text{So, } 100 \rightarrow 150$$

Now calculate for P, q, r, .....

The sales I ncrease by 40% for these products --.

P, Q, R, V

30. Ans. A.

$$\text{For year } 2014 \rightarrow 30 * 12000 / 100 = \$3600$$

$$\text{For year } 2015 \rightarrow 10 * 18000 / 100 = 1800$$

$$\text{So, total sales of S is } \rightarrow 3600 + 1800 = 5400$$

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