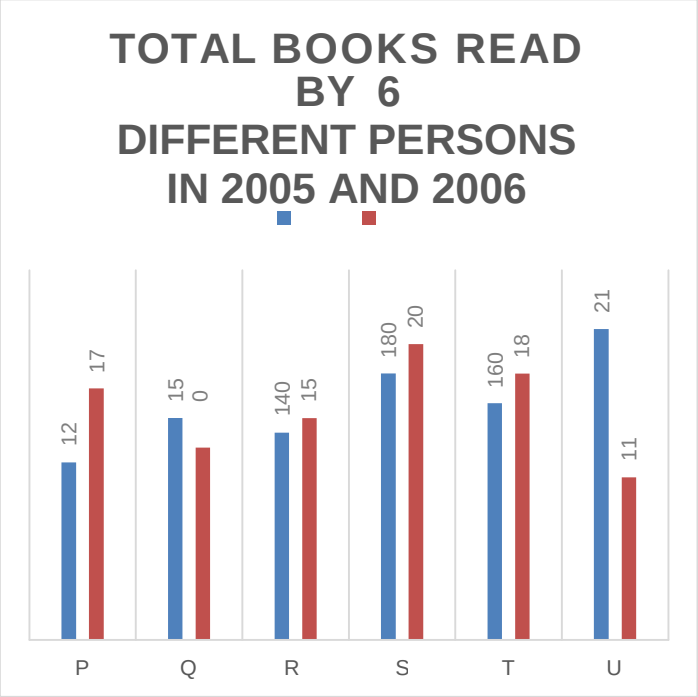
SBI Clerk Prelims 2019 Memory Based Model Paper – Quantitative Aptitude

Directions (Q. 1 - 5): Study the following information carefully and answer the given questions?

The following bar graph shows the total number of books read by 6 different persons in the year 2005 and 2006.



1) Find the ratio between the total number of books read by the person P, Q and R together in the year 2005 to that of total number of books read by the person S, T and U together in the year 2006?

a) 13 : 17

b) 41 : 49

c) 25 : 32

d) 67 : 73

e) None of these

2) Find the average number of books read by all the given persons in the year 2005?

a) 155

b) 165

c) 170

d) 160

e) None of these

3) Total number of books read by person Q and S together in the year 2005 is what percentage of total number of books read by person R and T together in the year 2006?

a) 95 %

b) 100 %

c) 80 %

d) 85 %

e) None of these

4) Find the difference between the total number of books read by the person P and T together in the year 2005 to that of total number of books read by the person Q and S together in the year 2006?

a) 70

b) 40

c) 60

d) 80

e) None of these

5) If the total number of books read by the person A in the year 2005 is 20 % more than the total number of books read by the person Q in the same year and that of books read by the person A in 2006 is same as that total books read by the person S in

the same year, then find the total number of books read by the person A in the both years together?

a) 380

b) 400

c) 320

d) 360

e) None of these

Directions (Q. 6 – 10): What value should come in place of (?) in the following number series?

6) 11, ?, 16, 21, 29, 41

a) 13

b) 12

c) 14

d) 15

e) None of these

7) 1800, ?, 60, 15, 5, 2.5

a) 150

b) 300

c) 450

d) 600

e) None of these

8) 150, 152, 147, 157, ?, 166

a) 125

b) 138

c) 140

d) 150

e) None of these

9) 200, 100, 150, 375, ?, 5906.25

a) 1312.5

b) 1115.5

c) 1227.5

d) 1445.5

e) None of these

10) 4, 3, 4, 9, 32, ?

a) 147

b) 160

c) 155

d) 165

e) None of these

Directions (Q. 11 – 20): What value should come in place of (?) in the following questions?

11) (789 + 417 + 673 + 228) ÷ (18 + 22 - ? + 38) = 49

a) 60

b) 45

c) 35

d) 50

e) None of these

12) [(1/57) × 1767] + (8/27) × 2484 = ? × 3

a) 356

b) 428

c) 477

d) 266

e) None of these

13) 4 1/7 + 5 2/7 – 3 4/7+ 2 5/14 = ? – 6 ½

a) 14 5/7

b) 12 3/5

c) 9 2/3

d) 10 4/9

e) None of these

14) 18 % of 450 – 25 % of 180 = ? - √324 % of 900

a) 256

b) 312

c) 344

d) 198

e) None of these

15) 72 × 6 × (125 - 97) + 1254 ÷ 3 ÷ 11 – 66^2 = ?

a) 6152

b) 6524

c) 7196

d) 7778

e) None of these

16) 6 5/8 % of 9600 + (1425 ÷ 25 ÷ 3] = 127 + ?

a) 576

b) 528

c) 534

d) 552

e) 590

17) 15 % of ? - 2366 ÷ 13 - 1275 ÷ 3 = 68

a) 3600

b) 2700

c) 4500

d) 4800

e) None of these

18) ? ÷ 5 + 125 × 11 = 4288 + 5572

a) 42425

b) 40560

c) 39750

d) 37240

e) None of these

19) 3 3/13 of 4355 – 27^2 = ? + 561

a) 11360

b) 12780

c) 14570

d 15890

e) None of these

20) 21 × 7 4/7 of (? ÷ 11) = 318

a) 45

b) 34

c) 22

d) 16

e) None of these

21) If the length of a rectangle is increased by 25 % while the breadth of the rectangle is decreased by 20 %, then find percentage change in area of the rectangle?

a) 10 % decreased

b) 5 % decreased

c) 10 % increased

d) 5 % increased

e) No change

22)Two pipes A and B can fill a tank alone in 20 minutes and 25 minutes respectively. If both the pipes are opened simultaneously, then after how much time pipe B should be closed, so that tank is full in 12 minutes?

a) 8 min

b) 9 min

c) 7 min

d) 10 min

e) None of these

23) A shopkeeper sold an article for Rs. 660 at a loss of 12 %. At what price should it be sold to gain a profit of 8 %?

a) Rs. 780

b) Rs. 810

c) Rs. 830

d) Rs. 800

e) None of these

24) A student gets 16 % marks and fails by 20 marks. Another student gets 24 % marks so he gets 52 marks more than the passing marks. Find the passing mark?

a) 164

b) 175

c) 158

d) 144

e) None of these

25) The speed of a car is two-third of the speed of a train. Train covers 240 km in 3 hours. How much distance will the car cover in 5hrs?

a) 400 km

b) 360 km

c) 420 km

d) 340 km

e) None of these

26) Thirty percent of Arun's monthly salary is equal to Rajesh's monthly salary. If Arun's monthly salary is Rs. 45000, then what is Rajesh's annual salary?

a) Rs. 178000

b) Rs. 162000

c) Rs. 156000

d) Rs. 184000

e) None of these

27) The difference between Simple interest and Compound interest on a certain sum at the rate of 8 % per annum for two years is Rs. 256. Find the simple interest on that sum at the rate of 14% per annum after 8 years?

a) Rs. 47500

b) Rs. 41200

c) Rs. 36400

d) Rs. 44800

e) None of these

28) A certain number of men complete a piece of work in 40 days. If there were 8 men more, the work could be finished in 10 days less. How many men were originally there?

a) 24

b) 32

c) 48

d) 66

e) None of these

29) P and Q started a business by investing Rs. 18000 and Rs. 24000 respectively. After 5 months, P invested Rs. 2000 more. And after 4 months, Q withdraw the whole amount. Find the share of Q, if the total profit at the end of the year is Rs. 73590?

a) Rs. 28950

b) Rs. 27680

c) Rs. 35640

d) Rs. 33290

e) None of these

30) Abirami got married 5 years ago. Today her age is 1(1/5) times of that at the time of her marriage. At present, her daughter's age is one eighth of her age, after 2 years. What will be her daughter's age after 3 years?

a) 8 years

b) 7 years

c) 10 years

d) 9 years

e) None of these

Directions (Q. 31 - 35) In the following questions, two equations I and II are given. You have to solve both the equations and give answer as,

a) If $x > y$

b) If $x \geq y$

c) If $x < y$

d) If $x \leq y$

e) If $x = y$ or the relation cannot be established

31)

I) $2x^2 + 25x + 57 = 0$

II) $3y^2 + 21y + 36 = 0$

32)

I) $x^2 – 9x – 52 = 0$

II) $y^2 – 15y + 54 = 0$

33)

I) $x^2 – 8x – 48 = 0$

II) $y^2 – 10y + 24 = 0$

34)

I) $6x – 5y = -15$

II) $2x – 3y = -1$

35)

I) $5x^2 – 30x + 45 = 0$

II) $4y^2 + 15y – 54 = 0$

Answers:

1) Answer: B

The total number of books read by the person P, Q and R together in the year 2005

= > 120 + 150 + 140 = 410

The total number of books read by the person S, T and U together in the year 2006

= > 200 + 180 + 110 = 490

Required ratio = 410 : 490 = 41 : 49

2) Answer: D

The average number of books read by all the given persons in the year 2005

= > (120 + 150 + 140 + 180 + 160 + 210)/6

= > 160

3) Answer: B

Total number of books read by person Q and S together in the year 2005

= > 150 + 180 = 330

Total number of books read by person R and T together in the year 2006

= > 150 + 180 = 330

Required % = (330/330)*100 = 100 %

4) Answer: E

The total number of books read by the person P and T together in the year 2005

= > 120 + 160 = 280

The total number of books read by the person Q and S together in the year 2006

= > 130 + 200 = 330

Required difference = 330 - 280 = 50

5) Answer: A

The total number of books read by the person A in the both years together

= > 150*(120/100) + 200

= > 180 + 200 = 380

6) Answer: A

The difference of difference is 1, 2, 3, 4

7) Answer: B

The pattern of the series is ÷6, ÷5, ÷4, ÷3, ÷2

8) Answer: C

The pattern of the series is +2, -5, +10, -17, +26.

The difference is 7, 15, 27, 43

The difference of difference is 8, 12, 16

9) Answer: A

The pattern of the series is ×0.5, ×1.5, ×2.5, ×3.5, ×4.5

10) Answer: C

The pattern of the series is ×1-1, ×2-2, ×3-3, ×4-4, ×5-5

11) Answer: C

(789 + 417 + 673 + 228) ÷ (18 + 22 - x + 38) = 49

2107 ÷ (78 - x) = 49

2107/49 = 78 - x

43 = 78 – x

x = 78 – 43

x = 35

12) Answer: D

3 × ? = (1767/57) + [(8 × 2484) / 27]

62+736 = 3x

3x = 798

X= 266

13) Answer: A

(4 + 5 – 3 + 2 + 6)(1/7 + 2/7 – 4/7 + 5/14 + 1/2) = x

X = 14 [(2 + 4 – 8 + 5 + 7)/14]

X = 14(10/14) = 14 (5/7)

14) Answer: C

(18/100)*450 – (25/100)*180 = x – (18/100)*900

81 – 45 = x – 162

36 + 162 = x

X = 198

15) Answer: D

(72*6*28) + 1254 ÷ 3 ÷ 11 – 66^2 = x

12096 + 38 – 4356 = x

x = 7778

16) Answer: B

(53/800)*9600 + ((1425/25)/3) = 127 + x

636 + 19 – 127 = x

X = 528

17) Answer: C

(15/100)*x – (2366/13) – (1275/3) = 68

(3x/20) = 68 + 182 + 425

(3x/20) = 675

X = 675*(20/3) = 4500

18) Answer: C

(x/5) + 1375 = 4288 + 5572

(x/5) = 9860 – 1375

(x/5) = 8485

x = 42425

19) Answer: B

(42/13)*4355 – 729 = x + 561

14070 - 729 – 561 = x

X = 12780

20) Answer: C

21*(53/7)*(x/11) = 318

X = (318*7*11)/(21*53)

X = 22

21) Answer: E

Let the length and breadth of the rectangle is 10 cm and 10cm,

Previous area = 10*10 = 100

New length = 10*125/100 = 12.5

New breadth = 10*80/100 = 8

New area= 12.5*8 = 100

No change in the area of the rectangle.

22) Answer: D

(12/20) + (x/25) = 1

(x/25) = 1 – (3/5)

(x/25) = 2/5

X = (2/5)*25 = 10 min

After 10 min, B should be closed.

23) Answer: B

(88/100)*Cost price = 660

Cost price = 660*(100/88) = Rs. 750

To get a profit of 8 %,

Selling price = 750*(108/100) = Rs. 810

24) Answer: A

Let the maximum mark be x,

Here the passing mark is equal. So,

(16/100)*x + 20 = (24/100)*x – 52

(24/100)*x – (16/100)*x = 72

(8/100)*x = 72

X = 7200/8 = 900

Passing mark = (16/100)*900 + 20 = 144 + 20 = 164

25) Answer: A

Speed of train = 360/3 = 120 km/hr

Speed of car = 120 × (2/3) = 80 km/hr

Required distance = 80 × 5 = 400 km

26) Answer: B

Arun's monthly salary = Rs. 45000

(30/100)*Arun's monthly salary = Rajesh monthly salary

Rajesh monthly salary = (30/100)*45000 = Rs. 13500

Rajesh's annual salary

= > 13500*12

= > Rs. 162000

27) Answer: D

The difference between CI and SI for two years is,

Diff = $P*(r/100)^2$

$256 = P*(8/100)^2$

$256*(25/2)^2 = P$

P = 256*(625/4) = 40000

S.I = (40000*14*8)/100

S. I = Rs. 44800

28) Answer: A

Let the no of men be x,

Work = men*days

Here work is equal. So,

40*x = (x + 8)*30

4x = 3x + 24

X = 24

29) Answer: C

The share of P and Q,

= > [18000*5 + 20000*7] : [24000*9]

= > 230000 : 216000

= > 115 : 108

223's = 73590

1's = 330

The share of Q = 108's = Rs. 35640

30) Answer: B

Today her age = (6/5)* Age, at the time of her marriage

Today her age : Age, at the time of her marriage = 6 : 5

5 years ago, she got married.

1's = 5

Present age of Abirami = 30 years

Daughter's present age = (32/8) = 4 years

Daughter's age after 3 years = 7 years

31) Answer: E

I) $2x^2 + 25x + 57 = 0$

$2x^2 + 6x + 19x + 57 = 0$

2x(x + 3) + 19(x + 3) = 0

(2x + 19) (x + 3) = 0

X = -19/2, -3 = -9.5, -3

II) $3y^2 + 21y + 36 = 0$

$3y^2 + 12y + 9y + 36 = 0$

3y (y + 4) + 9(y + 4) = 0

(3y + 9) (y + 4) = 0

Y = -3, -4

Can't be determined

32) Answer: C

I) $x^2 – 9x – 52 = 0$

(x + 13) (x – 4) = 0

X = -13, 4

II) $y^2 – 15y + 54 = 0$

(y – 9) (y – 6) = 0

Y = 9, 6

x< y

33) Answer: B

I) $x^2 – 8x – 48 = 0$

(x – 12) (x + 4) = 0

x = 12, -4

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

(y + 6) (y + 4) = 0

y = -6, -4

x ≥ y

34) Answer: C

6x – 5y = -15 ---→ (1)

2x – 3y = -1 --- → (2)

By solving the equation (1) and (2), we get,

x = -5, y = -3

x< y

35) Answer: A

I) $5x^2 – 30x + 45 = 0$

$5x^2 – 15x – 15x + 45 = 0$

5x(x – 3) -15(x – 3) = 0

(5x – 15) (x – 3) = 0

x = 15/5, 3 = 3, 3

II) $4y^2 + 15y – 54 = 0$

$4y^2 + 24y – 9y – 54 = 0$

4y(y + 6) – 9(y + 6) = 0

(4y – 9) (y + 6) = 0

y = 9/4, -6 = 2.25, -6

x> y