

Test Name : QUANTITATIVE ALL TOPIC EXAM

Total Questions : 100

Difficulty Level : medium

Total Marks : 100.00

Test Type : Free

Duration : 60.00 mins

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**Instruction :****Please read the instructions carefully**

1. Total duration of examination is 30 minutes.
2. The clock will be set at the server. The countdown timer in the top right corner of screen will display the remaining time available for you to complete the examination. When the timer reaches zero, the examination will end by itself. You will not be required to end or submit your examination.
3. The Question Palette displayed on the right side of screen will show the status of each question using one of the following symbols:

- You have not visited the question yet.
  - You have not answered the question.
  - You have answered the question.
  - You have NOT answered the question, but have marked the question for review.
  - You have answered the question, but marked it for review.
- 

Q.1 **Essay : 1-10):**Passage:**What will come in place of (?) in following series following a certain pattern?**

2, 7, 29, 109, 319, ?

- A. 724
- B. 704
- C. 629
- D. 835
- E. 853

**Answer : C,**

**Solution :**

$$2 \times 6 - 5 = 7,$$

$$7 \times 5 - 6 = 29,$$

$$29 \times 4 - 7 = 109,$$

$$109 \times 3 - 8 = 319,$$

$$319 \times 2 - 9 = 629$$

Q.2 **Essay : 1-10):**Passage:

**What will come in place of (?) in following series following a certain pattern?**

729, 243, 162, 162, 216, ?

A. 555

B. 456

C. 782

D. 360

E. 685

**Answer : D,**

**Solution :**

$$\times 1/3, \times 2/3, \times 3/3, \times 4/3, \times 5/3$$

Q.3 **Essay : 1-10):**Passage:

**What will come in place of (?) in following series following a certain pattern?**

216, 95, 176, 127, 152, ?

A. 112

B. 101

C. 143

D. 120

E. 132

**Answer : C,**

**Solution :**

$$-11^2, +9^2, -7^2, +5^2, -3^2$$

Q.4 **Essay : 1-10):**Passage:

**What will come in place of (?) in following series following a certain pattern?**

3, 3, 7, 25, 73, ?

- A. 155
- B. 173
- C. 135
- D. 196
- E. 185

**Answer : B,**

**Solution :**

$$3 + (1^2 * 0) = 3$$

$$3 + (2^2 * 1) = 7$$

$$7 + (3^2 * 2) = 25$$

$$25 + (4^2 * 3) = 73$$

$$73 + (5^2 * 4) = 173$$

Q.5 **Essay : 1-10):**Passage:

**What will come in place of (?) in following series following a certain pattern?**

16, 20, 39, 83, ?, 286

- A. 195
- B. 190
- C. 140
- D. 158
- E. 162

**Answer : E,**

**Solution :**

16..... 20..... 39..... 83..... 162..... 286

. +4 +19 +44 +79 +124

. +15 +25 +35 +45

Q.6 **Essay : 1-10):**Passage:

**What will come in place of (?) in following series following a certain pattern?**

16, 20, 34, 28, 52, ?

A. 36

B. 45

C. 67

D. 84

E. 72

**Answer : A,**

**Solution :**

16..... 20..... 34..... 28..... 52..... 36

. +4 +14 -6 +24 -16

. +10 -20 +30 -40

Q.7 **Essay : 1-10):**Passage:

**What will come in place of (?) in following series following a certain pattern?**

26, 20, 37, 29, 48, 38, ?

A. 62

B. 59

C. 71

D. 54

E. 75

**Answer : B,**

**Solution :**

Two series

$$26 + 11 = 37, 37+11 = 48, 48+11 = 59$$

$$20+9 = 29, 29+9 = 38$$

Q.8 **Essay : 1-10):**Passage:

**What will come in place of (?) in following series following a certain pattern?**

33, 37, 28, 44, 19, ?

- A. 66
- B. 59
- C. 34
- D. 42
- E. 55

**Answer : E,**

**Solution :**

$$+2^2, -3^2, +4^2, -5^2, +6^2$$

Q.9 **Essay : 1-10):**Passage:

**What will come in place of (?) in following series following a certain pattern?**

8, 20, 56, 164, 488, ?

- A. 1387
- B. 1345
- C. 1460
- D. 1430
- E. 1428

**Answer : C,**

**Solution :**

$$*3 - 4, *3 - 4, *3 - 4, *3 - 4, *3 - 4$$

Q.10 **Essay** : 1-10):Passage:

**What will come in place of (?) in following series following a certain pattern?**

4, 10, 14, 48, 186, ?

A. 570

B. 688

C. 753

D. 862

E. 936

**Answer : E,**

**Solution :**

$$4 \times 1 + 6 = 10,$$

$$10 \times 2 - 6 = 14,$$

$$14 \times 3 + 6 = 48,$$

$$48 \times 4 - 6 = 186,$$

$$186 \times 5 + 6 = 936$$

Q.11  **$4x^2 + 8x + 3 = 0$**

**$4y^2 - 29y + 45 = 0$**

A. A)  $X > Y$

B. B)  $X < Y$

C. C)  $X \geq Y$

D. D)  $X \leq Y$

E. E)  $X = Y$  or relation cannot be established

**Answer : B,**

**Solution :**

$$4x^2 + 8x + 3 = 0$$

$$x = -0.5, -3.5$$

$$4y^2 - 29y + 45 = 0$$

$$y = 2.25, 5$$

**Q.12**  $2x^2 - 23x + 21 = 0$

$y^2 + 42y + 272 = 0$

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

**Answer : A,**

**Solution :**

$$2x^2 - 23x + 21 = 0$$

$$x = 10.5, 2$$

$$y^2 + 42y + 272 = 0$$

$$y = -16, -17$$

**Q.13**  $5x^2 - 26x + 21 = 0$

$2y^2 - 17y + 21 = 0$

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

**Answer : E,**

**Solution :**

$$5x^2 - 26x + 21 = 0$$

$$x = 4.2, 1$$

$$2y^2 - 17y + 21 = 0$$

$$y = 7, 1.5$$

Q.14  $x^2 - 21x + 104 = 0$

$y^2 - 33y + 260 = 0$

A. A)  $X > Y$

B. B)  $X < Y$

C. C)  $X \geq Y$

D. D)  $X \leq Y$

E. E)  $X = Y$  or relation cannot be established

**Answer : D,****Solution :**

$x^2 - 21x + 104 = 0$

$x = 13, 8$

$y^2 - 33y + 260 = 0$

$y = 13, 20$

Q.15  $x^2 - 31x + 240 = 0$

$y^2 - 28y + 195 = 0$

A. A)  $X > Y$

B. B)  $X < Y$

C. C)  $X \geq Y$

D. D)  $X \leq Y$

E. E)  $X = Y$  or relation cannot be established

**Answer : C,****Solution :**

$x^2 - 31x + 240 = 0$

$x = 15, 16$

$y^2 - 28y + 195 = 0$

$y = 13, 15$

Q.16 **An amount of money is to be distributed among P, Q and R in the ratio of 7:4:5**



respectively. If the total share of P and R is 4 times the share of Q, what is definitely Q's share?

- A. A) 2000
- B. B) 4000
- C. C) 6000
- D. D) Data inadequate
- E. E) None of these

**Answer : D,**

**Solution :**

Total sum not given

Q.17 **Two candles of same height are lighted at the same time. The first is consumed in 3 hours and second in 2 hours. Assuming that each candles burns at a constant rate, in how many hours after being lighted, the ratio between the first and second candles becomes 2:1?**

- A. A) 2 hour
- B. B) 2.5 hour
- C. C) 4 hour
- D. D) 4.5 hour
- E. E) None of these

**Answer : D,**

**Solution :**

Height of both candles are same i.e. h  
First one takes 6 hours to burn completely, so in one hour =  $h/3$   
Similarly second one will burn in one hour =  $h/2$   
Let after t time, ratio between their height is 2:1  
so, remaining height of first candle =  $h - t*(h/3)$   
similarly for second candle =  $h - t*(h/2)$   
ratio given 2:1,  
 $h - t*(h/3) / h - t*(h/2) = 2/1$   
Solving we get  $t = 9/2 = 4.5$

Q.18 **If A and B together have a certain amount X and if 4/15 of A's amount is equal to 2/5 of B's amount, which of the following is true?**

- A. A)  $A = 1767$ ;  $X = 2675$
- B. B)  $B = 1070$ ;  $X = 2895$
- C. C)  $A = 1767$ ;  $X = 2945$
- D. D)  $B = 1158$ ;  $X = 2585$
- E. E)  $A = 1605$ ;  $X = 2945$

**Answer : C,**

**Solution :**

$$\begin{aligned} \frac{4}{15} * A &= \frac{2}{5} * B \\ A &= \frac{2}{3} B; \\ A:B &= 3:2; \\ A &= \frac{3}{5} * 2945 = 1767 \end{aligned}$$

**Q.19 A sum of Rs.4880 was divided among boys and girls in such a way that each boy gets Rs.44.50 and each girl get Rs. 55.25. If the total number of girls and boys is 100, find the**

**number of girls?**

- A. A) 60
- B. B) 50
- C. C) 40
- D. D) 30
- E. E) None of these

**Answer : C,**

**Solution :**

$$\begin{aligned} x+y &= 100 \text{ ————— (i)} \\ 44.50x + 55.25y &= 4880 \text{ ————— (ii)} \\ \text{Solving (i) and (ii) } Y &= 40 \end{aligned}$$

**Q.20 The income of Vinay and Prakash are in the ratio of 4:5 and their expenditure is in the**

**ratio of 2:3. If each of them saves 5000, then find their income.**

- A. A) 11000, 8550
- B. B) 12000, 7750
- C. C) 15000, 8750
- D. D) 13000, 9780

E. E) None of these

**Answer : C,**

**Solution :**

$$4x - 2y = 5000 \text{ and } 5x - 3y = 5000.$$

$$X = 8750, \text{ so income} = 8750 \text{ and } 15000$$

**Q.21 If 6 years are subtracted from the present age of Anuj and the remainder is divided by 18, then the present age of his grandson Gopal is obtained. If Gopal is 2 years younger to Mohan whose age is 5 years, then what is the age of Anuj?**

- A. A) 44
- B. B) 60
- C. C) 80
- D. D) 92
- E. None of these

**Answer : B,**

**Solution :**

Let Anuj's age be X

Gopal is 2 years younger than Mohan, so Gopal is 3 years (i.e  $5 - 2 = 3$ )

If Arun had born 6 years before, his age would had been X - 6. As per the question, X - 6 should be 18 times as that of Gokul's age.

$$\text{i.e. } (X - 6) / 18 = 3$$

$$X - 6 = 3 \times 18$$

$$x = 60$$

**Q.22 Ten years ago, Khush was thrice as old as Sam was but 10 years hence, he will be only twice as old. Find Khush's present age?**

- A. A) 30
- B. B) 35
- C. C) 40
- D. D) 36

E. E) None of these

**Answer : A,**

**Solution :**

Let Khush's present age be  $x$  years and Sam's present age be  $y$  years

Then, according to the first condition,

$$x - 10 = 3(y - 10)$$

$$\text{or, } x - 3y = -20 \dots\dots(1)$$

Now, Khush's age after 10 years =  $(x + 10)$  years

Sam's age after 10 years =  $(y + 10)$

$$(x+10) = 2(y+10)$$

$$\text{or, } x - 2y = 10 \dots\dots(2)$$

Solving (1) and (2), we get

$$x = 70 \text{ and } y = 30$$

Khush's age = 70 years and Sam's age = 30 years

**Q.23 Father is aged three times more than his son Mohit. After 8 years, he would be two and a half times of Mohit's age. After further 8 years, how many times would he be of Mohit's age?**

- A. A) 4
- B. B) 2
- C. C) 2.5
- D. D) 3
- E. E) None of these

**Answer : B,**

**Solution :**

Let Monit's present age be  $X$  years. Then, father's present age =  $(X + 3X)$  years =  $4X$  years.

$$(4X + 8) = \frac{5}{2} \times (X + 8)$$

$$8X + 16 = 5X + 40$$

$$3X = 24 \text{ so, } X=8$$

$$\text{Hence, required ratio} = (4X + 16) / (X + 16) = 48 / 24 = 2$$

**Q.24 A father said to his son, "I was as old as you are at present at the time of your birth." If the father's age is 38 years now, the son's age five years back was:**

- A. A) 14
- B. B) 19
- C. C) 38
- D. D) 40
- E. E) None of these

**Answer : A,**

**Solution :**

Let son's present age be X years. Then,  $(38 - X) = X$

$$2X = 38$$

$$X = 19$$

Son's age 5 years back =  $(19 - 5)$  years = 14 years

**Q.25 One year ago the ratio between Sam and Ash's age was 4:3. One year hence the ratio of their ages will be 5:4. What is the sum of their present ages in years?**

- A. A) 14
- B. B) 16
- C. C) 18
- D. D) 12
- E. E) None of these

**Answer : B,**

**Solution :**

Let one year ago

Sam's age be 4X years

And, Ash's age be  $3X$  years

Present age of Sam =  $(4X + 1)$  years

Present age of Ash =  $(3X + 1)$  years

One year hence

Sam's age =  $(4X + 2)$  years

Ash's age =  $(3X + 2)$  years

According to question,

$[4X + 2]$  divide by  $[3X + 2] = 5 / 4$

$$16X + 8 = 15X + 10$$

or,  $X = 2$

Sum of their present ages =  $4X + 1 + 3X + 1$

$$= 7X + 2$$

$$= 7 \times 2 + 2 = 16 \text{ years.}$$

- Q.26 Sam and Suresh start a business with investments of Rs. 5000 and Rs. 3000 respectively. After 2 months, Sam takes out Rs.2000 from his capital. After 1 more month, Suresh takes out Rs.2000 of his capital while Sunil joins them with a capital of Rs. 6000. At the end of 9 months from the start, they earn a total profit of Rs. 4920. Which of the following is the share of each member respectively in the profit?
- A. Rs. 1860, Rs. 900, Rs. 2160
  - B. Rs. 15000, Rs. 850, Rs. 2300
  - C. Rs. 1650, Rs. 800, Rs. 1895
  - D. Rs. 1700, Rs. 860, Rs. 2150
  - E. None of these

**Answer : A,**

**Solution :**

Their investing ratio:  
 $(5000*2 + 3000*7) : (3000*3 + 1000*6) :$   
 $(6000*6)$   
 $= (30000):(15000):(36000) = 31:15:36$   
Total profit for 9 months = Rs.4920  
Therefore,  $(31+15+36)82 = 4920$   
Sam's share 31 ? = Rs.1860  
Suresh's share 15 ? = Rs900  
Sunil's share 36 ? = Rs2160

- Q.27 Edwin started a business with Rs.25000 and after 4 months, Thomas joined him with Rs.60000. Edwin received Rs.58000 including 10% of profit as commission for managing the business. What amount did Thomas receive?
- A. Rs 80,000
  - B. Rs 72,000
  - C. Rs 65,000
  - D. Rs 82,000
  - E. None

**Answer : B,**

**Solution :**

Profit sharing ratio is  
 $25000*12 : 60000*8 = 5:8$   
Total profit 100%  
Edwin got 10% for Managing the business  
so remaining 90% is shared by both.  
Edwin got 10%profit +  $\frac{5}{13} * 90\%$ profit  
 $0.1p + \frac{5}{13} * (0.9p) = 58,000$   
Then  $\frac{5.8p}{13} = 58000 \implies p = 1,30,000$ .  
Now Thomas profit is  $1,30,000 -$   
 $58,000 = 72,000$ .

- Q.28 P, Q and R start a business with Rs30,000, Rs40,000 Rs50,000 respectively. P stays for the entire year. Q leaves the business after two months but rejoins after another 4 months but only  $\frac{3}{4}$  of his initial capital. R leaves after 3 months and rejoins after another 5 months but with only  $\frac{4}{5}$  of his capital. If the year end profit is Rs 27,900, how much more than Q did R get?
- A. Rs1500
  - B. Rs9300
  - C. Rs3100
  - D. Rs12,400
  - E. None

**Answer : A,****Solution :**

Their ratio's  $30000 \times 12$ :  
 $(40000 \times 2 + 30000 \times 6) : (50000 \times 3 + 40000 \times 4)$   
36:26:31  
Total profit is Rs 27900  
Then  $(36+26+31) 93 = 27900$   
Diff of Q-R  $(31-26) 5 ? \Rightarrow \text{Rs}1500$

- Q.29 A starts a business with Rs.40,000. After 2 months, B joined him with Rs.60,000. C joined them after some more time with Rs.1,20,000. At the end of the year, out of a total profit of Rs.3,75,000, C gets Rs.1,50,000 as his share. How many months after B joined the business, did C join?
- A. 5  
B. 8  
C. 6  
D. 10  
E. None

**Answer : C,****Solution :**

$40000 \times 12 : 60000 \times 10 : 120000 \times x = 40$   
 $\times 12 : 60 \times 10 : 120 x = 40 : 5 \times 10 : 10x = 8$   
 $: 10 : 2x = 4 : 5 : x$   
C's share  $375000x/(9+x) = 150000$   
 $375x/(9+x) = 150$   
 $X = 6$

- Q.30 M started a business with Rs.25,000. N joined him after 4 months with Rs20,000. After 2 more months, M withdrew Rs.10,000 of his capital and 2 more months later, N brought in Rs.10,000 more. What should be the ratio in which they should share their profits at the end of the year?
- A. 2:3  
B. 5:6  
C. 4:7  
D. 5:4  
E. None

**Answer : D,**



**Solution :**

Their Ratio's

$$(25000 \times 6 + 15000 \times 6) : (20000 \times 4 + 30000 \times 4)$$

$$150 + 90 : 80 + 120 = 240 : 200 = 5 : 4$$

**Q.31 The average presence of students of a class in a College on Monday, Tuesday and Wednesday is 32 and on the Wednesday, Thursday, Friday and Saturday is 30. if the average number of students on all the six days is 26 then the number of students who attended the class on Wednesday is?**

- A. A) 50
- B. B) 40
- C. C) 60
- D. D) 70
- E. E) 80

**Answer : C,**

**Solution :**

$$32 * 3 + 30 * 4 - 26 * 6 = 96 + 120 - 156 =$$

60

**Q.32 Suresh started his journey from P to Q by his bike at the speed of 40 kmph and then, the same distance he travelled on his foot at the speed of 10 kmph from Q to R. Then he returned from R to P via Q at the speed of 24 kmph. The average speed of the whole trip is:**

- A. A) 18.5 kmph
- B. B) 19.8 kmph
- C. C) 18.2 kmph
- D. D) 19.2 kmph
- E. E) None of these

**Answer : D,**

**Solution :**

$$\text{Average speed from P to R} = 2 * 40 * 10 / (40 + 10) = 16 \text{ kmph}$$

$$\text{Average Speed} = 2 * 16 * 24 / (16 + 24) = 19.2 \text{ kmph}$$

**Q.33 Ramesh walked 6 km to reach the station from his house, then he boarded a train whose average speed was 60 kmph and thus he reached his destination. In this way he took a total time of 3 hours. If the average speed of the entire journey was 32 kmph then the average speed of walking is:**

- A. A) 5 kmph
- B. B) 8 kmph
- C. C) 2 kmph
- D. D) 4 kmph
- E. E) None of these

**Answer : D,**

**Solution :**

$$\text{Total Distance} = 32 * 3 = 6 + 60 * x$$

$$x = 1.5 \text{ hour ; Walking Speed} = 6/1.5 = 4 \text{ kmph}$$

**Q.34 Bala travels first one-third of the total distance at the speed of 10 kmph and the next one-third distance at the speed of 20 kmph and the last one - third distance at the speed of 60 kmph. What is the average speed of Bala?**

- A. A) 18 kmph
- B. B) 19 kmph
- C. C) 16 kmph
- D. D) 12 kmph
- E. E) None of these

**Answer : A,**

**Solution :**

$$= 3 * 10 * 20 * 60 / (200 + 1200 + 600)$$

$$= 18 \text{ kmph}$$

**Q.35 The average income of Arun, Bala and Chitra is Rs. 12,000 per month and average income of Bala, Chitra and David is Rs. 15,000 per month. If the average salary of David be twice that of Arun, then the average salary of Bala and Chitra is in Rs?**

- A. A) 15,000

- B. B) 20,000
- C. C) 14500
- D. D) 13500
- E. E) None of these

**Answer : D,**

**Solution :**

$$\text{Arun} + \text{Bala} + \text{Chitra} = 12000 \times 3$$

$$\text{Bala} + \text{Chitra} + \text{David} = 15000 \times 3$$

$$\text{David} - \text{Arun} = 3000 \times 3 = 9000$$

$$\text{David} = 2\text{Arun}$$

$$\text{David} = 18000 \text{ and } \text{Arun} = 9000$$

$$\text{Average salary of Bala and Chitra,} = (45000 - 18000) / 2 = 13,500$$

**Q.36 Veena bought a watch costing Rs. 1404 including sales tax at 8%. She asked the shopkeeper to reduce the price of the watch so that she can save the amount equal to the tax. The reduction of the price of the watch is?**

- A. A) Rs.108
- B. B) Rs.104
- C. C) Rs.112
- D. D) Rs.120
- E. E) None of these

**Answer : B,**

**Solution :**

$$1.08x = 1404$$

$$x = 1300$$

$$\text{The reduction of the price of the watch} = 104$$

**Q.37 A Sales Executive gets a commission on total sales at 8%. If the sale is exceeded Rs.10,000 he gets an additional commission as a bonus of 4% on the excess of sales**

over Rs.10,000. If he gets the total commission of Rs.950, then the bonus he received is?

- A. A) 40
- B. B) 50
- C. C) 36
- D. D) 48
- E. E) None of these

**Answer : B,**

**Solution :**

Commission up to 10000 =  $10000 * 8/100 = 800$

Ratio =  $2x:x$  ; Commission =  $2x$ , Bonus =  $x$  ;

Bonus =  $950 - 800 * 1/3 = 150 * 1/3 = 50$

**Q.38 In a College there are 1800 students. Last day except 4% of the boys all the students were present in the college. Today except 5% of the girls all the students are present in the college, but in both the days number of students present in the college, were same. The number of girls in the college is?**

- A. A) 1000
- B. B) 400
- C. C) 800
- D. D) 600
- E. E) 1200

**Answer : C,**

**Solution :**

From Options;

let Number of girls = 800

Number of boys = 1000

$96\%$  of 1000 + 800 =  $95\%$  of 800 +

1000[satisfies the condition; Check the condition

with other options also]

**Q.39 In a library 60% of the books are in Hindi, 60% of the remaining books are in English rest of the books are in Malayalam. If there are 4800 books in English, then the total number of books in Malayalam are?**

- A. A) 3400
- B. B) 3500
- C. C) 3100
- D. D) 3200
- E. E) None of these

**Answer : D,**

**Solution :**

Let there are X books in the library.

Hindi books = 60% of X =  $60X / 100 = 0.6X$

Remaining Books =  $X - 0.6X = 0.4X$

English books = 40% of remaining books = 60% of  $0.4X = 0.24X$ .

Malayalam Books =  $X - 0.6X - 0.24X = 0.16X$

Given,

$0.24X = 4800$

$X = 4800 / 0.24 = 20000$

Malayalam Books =  $0.16X = 0.16 * 20000 = 3200$ .

**Q.40 80% of a small number is 4 less than 40% of a larger number. The larger number is 125**

**greater than the smaller one. The sum of these two numbers is**

- A. A) 325
- B. B) 345
- C. C) 355
- D. D) 365
- E. E) None of these

**Answer : C,**

**Solution :**

smaller number = x; larger number = y

$$0.8x + 4 = 0.4y$$

$$4y - 8x = 40$$

$$y - x = 125$$

$$x = 115; y = 240$$

$$x + y = 355$$

- Q.41 Hemant covers a certain distance with his own speed, but when he reduces his speed by 10 km/hr his time duration for the journey increases by 40 hrs, while if he increases his speed by 5km/hr from his original speed he takes 10hrs less than the original time taken. Find the distance covered by him.
- A. 1200km
  - B. 1500km
  - C. 1350km
  - D. 1400km
  - E. None

**Answer : B,**

**Solution :**

Let distance be  $x$  km and speed be  $y$  km/hr

$$x/(y-10) - x/y = 40 \implies x = 4y(y-10) \quad \text{---(1)}$$

$$x/y - x/(y+5) = 10 \implies x = 2y(y+5) \quad \text{---(2)}$$

Equate 1 and 2

$$4y(y-10) = 2y(y+5)$$

$$2y - 20 = y + 5 \implies y = 25 \text{ km/hr}$$

$$\text{Then } x = 2 * 25(25 + 5) = 50 * 30 = 1500 \text{ km}$$

- Q.42 A train met with an accident 60km away from station A. It completed the remaining journey at 5/6th of the original speed and reached station B 1hr 12mins late. Had the accident taken place 60km further, it would have been only 1hr late. what was the original speed of the train?
- A. 50km/hr
  - B. 45km/hr
  - C. 60km/hr
  - D. 55km/hr
  - E. None

**Answer : C,**

**Solution :**

Let the original speed be  $6x$ .

Travelling 60km at  $\frac{5}{6}$ th of original speed

cost 12 mins etc.

$$60/5x = 60/6x + 12/60$$

$$\implies x = 10$$

Original speed  $6x = 60$  km/hr.

Q.43 Two men start together to walk a certain distance, one at 4 km/hr and another at 5 km/hr. The former arrives half an hour before the latter. Find the distance.

- A. 10km
- B. 15km
- C. 20km
- D. 8km
- E. None

**Answer : A,**

**Solution :**

If the distance be  $x$  km, then

$$x/4 - x/5 = 1/2$$

$$(5x - 4x)/20 = 1/2$$

$$x/20 = 1/2 \implies x = 10 \text{ km}$$

Q.44 In a flight of 600 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 km/hr and the time of flight increased by 30 minutes. The duration of the flight is:

- A. 2hrs
- B. 1hr 30min
- C. 2hrs 15min
- D. 1hr
- E. None

**Answer : D,**

**Solution :**

Let the duration of the flight be x hrs.

Then,  $600/x - 600/(x+1/2) = 200$

$600/x - 1200/2x+1 = 200$

$X(2x+1) = 3$

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

$X = 1 \text{ hr.}$

Daily.

- Q.45 Two racers start running towards each other, one from A to B and another from B to A. They cross each other after one hour and the first racer reaches B,  $5/6$  hour before the second racer reaches A. If the distance between A and B is 50 km. what is the speed of the slower racer?
- A. 15km/hr  
B. 20km/hr  
C. 25km/hr  
D. 30km/hr  
E. None

**Answer : B,**

**Solution :**

Let second racer takes x hr with speed  $s_2$

First racer takes  $x - 5/6$  hr with speed  $s_1$

Total distance = 50km

$S_1 = 50/(x - (5/6))$

$S_2 = 50/x$

As they cross each other in 1hr...

Total speed =  $s_1 + s_2$

Now,  $T = D / S$

$50/(s_1 + s_2) = 1$

$x = 5/2, 1/3$

Put  $x = 5/2$  in  $s_2 \rightarrow 20 \text{ km/hr}$

Vis

- Q.46 **A 180 m long train crosses another 270 m long train running in the opposite direction in 10.8 seconds. If the shorter train crosses a pole in 12 seconds, what is the speed of longer train?**
- A. 98 km/hr  
B. 96 km/hr  
C. 90 km/hr  
D. 88 km/hr  
E. 78 km/hr



**Answer : B,****Solution :****Sol.** Speed of shorter train =  $\frac{180}{12} = 15$  m/sec

ATQ,

$$(15 + x) = \frac{180 + 270}{10.8}, \text{ where } x = \text{speed of longer train}$$

$$\Rightarrow 15 + x = \frac{4500}{108}$$

$$\Rightarrow x = \frac{4500}{108} - 15$$

$$\Rightarrow x = \frac{2880}{108} \times \frac{18}{5} = 96 \text{ kmph}$$

Q.47 **Modi has to reach a certain place at a certain time, he observes that he reaches 15 min late with speed 4 km/hr, and if he walks at 6 km/hr he reaches 10 min earlier , , How far he has to walk?**

- A. 25 km
- B. 5 km
- C. 10 km
- D. 7 km
- E. 15 km

**Answer : B,****Solution :****Sol.** Let the correct time taken in the journey is  $t$  hours.

$$\text{ATQ, } 4 \times \left(t + \frac{15}{60}\right) = 6 \times \left(t - \frac{10}{60}\right)$$

$$\Rightarrow 4t + 1 = 6t - 1 \Rightarrow t = 1 \text{ hour}$$

 $\therefore$  Total distance walked by Modi

$$= 4 \times \left(1 + \frac{1}{4}\right) = 5 \text{ km}$$

Q.48 **Pankaj travelled a certain part of the journey with speed 5 km/h and then he took an auto travelling at 25 km/h for the remaining part of the journey. He took 10 hours for the entire journey. What distance did he travelled by auto if the average speed of the entire journey be 17 km/h.**

- A. 750 km

- B. 100 km
- C. 150 km
- D. 200 km
- E. 250 km

**Answer : C,**

**Solution :**

**Sol.** Let time taken by Pankaj in walking be 't' hours

ATQ,

$$5t + 25 [10 - t] = 17 \times 10$$

$$\Rightarrow 20t = 80$$

$$\Rightarrow t = 4 \text{ hours}$$

\(\therefore\) Distance travelled by auto

$$= 25 \times (10 - 4)$$

$$= 25 \times 6 = 150 \text{ km}$$

- Q.49 **Train - A crosses a stationary train - B in 50 seconds and a pole in 20 seconds with the same speed. The length of the train - A is 240 metres. What is the length of the stationary Train-B?**
- A. 360 metres
  - B. 260 metres
  - C. 300 metres
  - D. Cannot be determined
  - E. None of these

**Answer : A,**

**Solution :**

**Sol.** Let length of train-B is l metres

$$\frac{240 + l}{50} = \frac{240}{20}$$

$$\Rightarrow l = 360 \text{ metres}$$

- Q.50 **The ratio between the speed of a train and a car is 18 : 3 respectively. Also, a bus covered a distance of 480 kms in 12 hours. The speed of the bus is five-ninths the speed of the train. How much distance will the car cover in 5 hours?**
- A. 50 kms.

- B. 80 kms.
- C. 75 kms.
- D. 120 kms
- E. 60 kmsit :

**Answer : E,**

**Solution :**

**Sol.** Let speed of train and car be  $18x$  and  $3x$  respectively.

$$\text{Speed of train} = \frac{9}{5} \times \frac{480}{12} = 72 \text{ km/hr}$$

$$\therefore \text{Speed of car} = \frac{72 \times 3}{18} = 12 \text{ km/hr}$$

$$\therefore \text{Required distance} = 12 \times 5 = 60 \text{ kms.}$$

- Q.51 Train-A crosses a pole in 25 seconds and another Train-B crosses as pole in 1 minute and 15 seconds. The Length of the train-A is half the length of the train-B. What is the respective ratio between the speed of the train-A to the speed of train-B?**
- A. 3 : 2
  - B. 3 : 4
  - C. 4 : 3
  - D. 5 : 4
  - E. 4 : 7

**Answer : A,**

**Solution :**

**Sol.** Let length of train-A is  $\ell$

$$\therefore \text{length of train-B} = 2\ell$$

$$\therefore \text{Required ratio of speeds} = \frac{\frac{\ell}{25}}{\frac{2\ell}{75}} = \frac{3}{2} = 3:2$$

- Q.52 Train A travelling at 52 km/hr crosses another train B, having three fourth of its length and travelling in opposite direction at 38 km/hr in 14 seconds. Train A passed a railway platform in 36 seconds. Find the length of platform.**
- A. 200 m
  - B. 300 m
  - C. 320 m

- D. 400 m
- E. 450 m

**Answer : C,**

**Solution :**

**Sol.** Let length of first train is  $x$  metre

Length of second train =  $\frac{3x}{4}$

$$\therefore \frac{x + \frac{3x}{4}}{(52 + 38) \times \frac{5}{18}} = 14$$

$$\Rightarrow \frac{7x}{100} = 14 \Rightarrow x = 200 \text{ m}$$

$\therefore$  Length of platform

$$= 36 \times 52 \times \frac{5}{18} - 200$$

$$= 520 - 200 = 320 \text{ m}$$

**Q.53 A train can travel 20% faster than a bus. Both start from the point A at the same time and reach point B 75 km away from A at the same time. But the train stopped for 12.5 minutes while stopping at the stations. Find the speed of the bus in km/hr.**

- A. 50 km/hr
- B. 55 km/hr
- C. 60 km/hr
- D. 65 km/hr
- E. 70 km/hr

**Answer : C,**

**Solution :**

**Sol.** Let speed of bus is  $x$  km/hr.

$$\therefore \text{Speed of train} = \frac{120x}{100} = \frac{6x}{5} \text{ km/hr.}$$

ATQ,

$$\frac{75}{x} - \frac{75 \times 5}{6x} = \frac{12.5}{60}$$

$$\Rightarrow \frac{75}{x} \left(1 - \frac{5}{6}\right) = \frac{5}{24}$$

$$\Rightarrow x = 15 \times 4$$

$$\Rightarrow x = 60 \text{ km/hr}$$

**Q.54** A train travels a distance of 600 km at a constant speed. If the speed of the train is increased by 5 km/hr, the journey would take 4 hrs less. Find the speed of the train.

- A. 100 km/hr
- B. 25 km/hr
- C. 50 km/hr
- D. 40 km/hr
- E. 60 km/hr

**Answer : B,**

**Solution :**

**Sol.** Using formula,  $\frac{s(s+5)}{5} \times 4 = 600$

$$s(s+5) = 750 = 25(25+5)$$

Speed of the train = 25 km/hr

**Alternately,**

$$\frac{600}{s} - \frac{600}{s+5} = 4$$

$$\frac{600s+3000-600s}{s(s+5)} = 4$$

$$s = 25 \text{ km/hr}$$

**Q.55** Train A covers 180 km distance in 4 hours. Another train B covers the same distance in 1 hour less time than train A. What is the difference in the distances covered by these trains in one hour if they are moving in the same direction?

- A. 35 km
- B. 9 km
- C. 45 km

- D. 40 km
- E. 15 km

**Answer : E,**

**Solution :**

**Sol.** First train speed =  $180/4 = 45$  km/hr

2<sup>nd</sup> train speed = 60 km/hr

$\therefore$  Difference in distance covered in 1 hr =  $60 - 45 = 15$  km

- Q.56 A man sell an item with a discount of 15% to his customers and still gains 10%. Find the MP of an item which cost Rs.320
- A. A) 414
  - B. B) 441
  - C. C) 411
  - D. D) 141
  - E. E) None of these

**Answer : A,**

**Solution :**

$$X \cdot 85/100 = 320 \cdot 110/100$$

$$X = 320 \cdot 110/85 = 414.12$$

- Q.57 A shopkeeper sells his goods at 10% profit. If he sells it at 20% profit, he get Rs.120 more. Find the CP
- A. A) 1000
  - B. B) 1020
  - C. C) 1100
  - D. D) 1200
  - E. E) None of these

**Answer : D,**

**Solution :**

$$120 \cdot 100/10 = 1200$$

- Q.58 A man sells 2 books for Rs.450 each at no profit no loss on the whole business. If he earned 20% profit on the 1<sup>st</sup> item then the loss on the 2<sup>nd</sup> item will be
- A. A) 12.48%
  - B. B) 14.28%
  - C. C) 12.24%
  - D. D) 14.28%
  - E. E) None of these

**Answer : D,**

**Solution :**

$$\text{SP of 2 items} = 450 + 450 = 900$$

$$\text{CP of 1}^{\text{st}} \text{ item} = 450 * 100 / 120 = 375$$

$$\text{CP of 2}^{\text{nd}} \text{ item} = 900 - 375 = 525$$

$$\text{Loss} = \text{CP} - \text{SP} = 525 - 450 = 75$$

$$\% \text{ loss} = 75 * 100 / 525 = 14.28\%$$

- Q.59 Arun bought a bag with 20% discount on the SP. If the watch cost him Rs.1400, What is the Original SP of the bag?
- A. A) 1750
  - B. B) 1740
  - C. C) 1650
  - D. D) 1570
  - E. E) None of these

**Answer : A,**

**Solution :**

$$X = 1400 * 100 / 80 = 1750$$

- Q.60 A lady sales saree, she charges 18% more than the CP. If a customer paid Rs.35 Then what was the CP of that saree
- A. A) 3016
  - B. B) 3017
  - C. C) 3071

- D. D) 3072
- E. E) None of these

**Answer : B,**

**Solution :**

$$100 * 3560 / 118 = 3017$$

- Q.61 A Shopkeeper professes to sell his articles on CP but he uses false weight of 900gm for 1kg.  
His gain % is
- A. A) 12.22%
  - B. B) 11.01%
  - C. C) 11.11%
  - D. D) 12.11%
  - E. E) None of these

**Answer : C,**

**Solution :**

$$(100/900) * 100 = 11.11\%$$

- Q.62 A dealer makes his goods 25% above CP and then while selling gives a discount of 12% on MP.  
Find his profit %
- A. A) 10%
  - B. B) 15%
  - C. C) 12%
  - D. D) 11%
  - E. E) None of these

**Answer : A,**

**Solution :**

$$\text{Let CP} = 100$$

$$\text{MP} = 125$$

$$\text{Profit} = 125 * 88 / 100 = 110$$



$$110 - 100 = 10\%$$

- Q.63 The price of the book is Rs.100. A dealer sells 3 such books for Rs.288 after allowing discount at certain rate. Find the rate of discount?
- A. A) 7%
  - B. B) 4%
  - C. C) 5%
  - D. D) 6%
  - E. E) None of these

**Answer : B,**

**Solution :**

Price of 3 books = Rs.300

SP of 3 books = Rs.288

$$\% = (300-288)*100/300 = 4\%$$

- Q.64 A shopkeeper earns a profit of 15% by giving a discount of 20% on marked price of a book. Find the ratio between Cost price and marked Price?
- A. A) 16:23
  - B. B) 23:16
  - C. C) 12:25
  - D. D) 14:23
  - E. E) None of these

**Answer : A,**

**Solution :**

$$MP*(100-20)/100 = CP*(100+15)/100$$

$$CP/MP = 80/115 = 16/23$$

- Q.65 The MRP of a dress is Rs.1050 and 15% discount is allowed, and the shopkeeper provided further 5% discount then what will be the Selling price of the dress
- A. A) Rs.854
  - B. B) Rs.848
  - C. C) Rs.886

- D. D) Rs.765  
E. E) None of these

**Answer : B,**

**Solution :**

$$\text{Solution SP} = 1050 \times 85 \times 95 / 100 \times 100 = 847.88 = 848$$

- Q.66 **An alloy contains iron, copper and zinc in the ratio of 3:4:2. Another alloy contains copper, zinc and tin in the ratio of 10:5:3. If equal quantities of both alloys are melted, then weight of tin per kg in the new alloy**
- A. 1/8 kg  
B. 1/10 kg  
C. 1/12 kg  
D. 1/14 kg  
E. None of these

**Answer : C,**

**Solution :**

$$I:C:Z = 3:4:2 \text{ (in first alloy) and } C:Z:T = 10:5:3$$

Equal quantities is taken. So,  $I:C:Z = 6:8:4$  in first alloy and  $C:Z:T = 10:5:3$

$$I = 6$$

$$C = 8 + 10 = 18$$

$$Z = 4 + 5 = 9$$

$$T = 3$$

$$\text{So weight of tin} = 3/36 = 1/12$$

- Q.67 **8 litres are drawn from a flask containing milk and then filled with water. The operation is performed 3 more times. The ratio of the quantity of milk left and total solution is 81/625. How much milk the flask initially holds?**
- A. 10ltr  
B. 20ltr  
C. 30ltr

- D. 40ltr
- E. None of these

**Answer : B,**

**Solution :**

let initial quantity be Q, and final quantity be F

$$F = Q*(1 - 8/Q)^4$$

$$81/625 = (1-8/Q)^4$$

$$3/5 = 1 - 8/Q$$

$$Q = 20$$

- Q.68 **A 40 litre mixture contains milk and water in the ratio of 3:2. 20 litres of the mixture is drawn off and filled with pure milk. This operation is repeated one more time. At the end what is the ratio of milk and water in the resulting mixture?**
- A. 5:1
  - B. 6:1
  - C. 8:1
  - D. 9:1
  - E. None of these

**Answer : D,**

**Solution :**

milk =  $40 * \frac{3}{5} = 24$  and water = 16 litres initially

$$\text{milk} = 24 - 20 * \frac{3}{5} + 20 = 32 - 20 * \frac{4}{5} + 20 = 36$$

$$\text{water} = 16 - 20 * \frac{2}{5} = 8 - 20 * \frac{1}{5} = 4$$

- Q.69 **Two vessels contain milk and water in the ratio of 7:3 and 2:3 respectively. Find the ratio in which the contents of both the vessels must be mixed to get a new mixture containing milk and water in the ratio 3:2.**
- A. 2:1
  - B. 2:3
  - C. 3:1

- D. 3:5
- E. None of these

**Answer : A,**

**Solution :**

Let the ratio be k:1

then in first mixture, milk =  $7k/10$  and water =  $3k/10$

and in second mixture, milk =  $2/5$  and water =  $3/5$

$$[7k/10 + 2/5]/[3k/10 + 3/5] = 3/2$$

K = 2, so ratio will be 2:1

- Q.70 **How many Kgs of rice A costing rupees 20 per kg must be mixed with 20 kg of rice B costing rupees 32 per kg, so that after selling them at 35 rupees per kg, he gets a profit of 25%.**
- A. 10 kg
  - B. 40 kg
  - C. 24 kg
  - D. 25 kg
  - E. None of these

**Answer : A,**

**Solution :**

by rule of alligation,

20 32

.....28.....

4 8

So, x = 10

- Q.71 **Niharika borrows Rs.10000 for 2 years at 4% p.a. Simple interest. She immediately lends money to Girish at 50/4% p.a. for 2 years. Find the gain of 1 year?**
- A. 1050

- B. 580
- C. 850
- D. None of these

**Answer : C,**

**Solution :**

$$(10000*50*1/4*100) - (10000*4*1/100)$$

$$1250-400 = 850$$

**Q.72 A certain amount of money amounts to Rs. 720 in 2 years and to Rs. 870 in 4(1/2) years. Find the rate of interest if S.I. is reckoned.**

- A. 12%
- B. 10%
- C. 12.50%
- D. 13%
- E. None of these

**Answer : B,**

**Solution :**

$$\text{Trick: } (A_1*T_2 - A_2*T_1) / T_2 - T_1$$

$$(720*9/2) - (870*2) / (9/2) - 2$$

**Q.73 At what percent per annum will a sum of money triple in 16 years?**

- A. 12%
- B. 10%
- C. 12(1/2)%
- D. 11(1/2)%
- E. None of these

**Answer : C,**

**Solution :**

$$P = P, SI=2P, T=16$$

$$\text{Rate} = 100 * 2P / P * 16$$

**Q.74 The Simple Interest on a certain sum of money for 3(1/2) years at 16% p.a. is 60 less than the SI on the same sum for 4(1/2) years at 14% p.a. Find the sum.**

- A. Rs.875.14
- B. Rs.785.12
- C. Rs.857.14
- D. Rs. 877.14
- E. None of these

**Answer : C,**

**Solution :**

$$X * 9 * 14 / 100 * 2 - x * 7 * 16 / 100 * 2 = 60$$

**Q.75 A man lends Rs.20000 in four parts if he gets 8% on Rs.4000, 6(1/2)% on Rs. 8000 and 8(1/2)% on Rs.6000. What percent must he get for the remainder, if his average annual interest is 9.13%?**

- A. 13,8%
- B. 23.8%
- C. 12.8%
- D. 14.8%
- E. None of these

**Answer : B,**

**Solution :**

$$(4000 * 8 * 1) / 100 + (8000 * 13 * 1) / 2 * 100 + (6000 * 17 * 1) / 100 + (2000 * R * 1) / 100 = 9.13 / 100 * 20000$$

**Q.76 On a certain sum of money, after 2 years the simple interest and compound interest obtained are Rs 800 and Rs 960 respectively. What is the sum of money invested?**

- A. Rs 1420
- B. Rs 1325
- C. Rs 1000
- D. Rs 1405
- E. Rs 1375

**Answer : C,**

**Solution :**

$$\text{Diff} = 960 - 800 = 160$$

$$r = \frac{2 \times \text{Diff} \times 100}{SI}$$

$$\text{So } r = \frac{2 \times 160 \times 100}{800} = 40\%$$

$$\text{Now } 160 = \frac{Pr^2}{100^2}$$

**Q.77 Rs 6000 becomes Rs 7200 in 3 years at a certain rate of compound interest. What will be the amount received after 9 years?**

- A. Rs 11,498
- B. Rs 10,352
- C. Rs 9,368
- D. Rs 10,368
- E. None of these

**Answer : D,**

**Solution :**

$$6000[1 + r/100]^3 = 7200$$

$$\text{So } [1 + r/100]^3 = 6/5$$

$$\text{So } 6000[1 + r/100]^9 = 6000 \times (6/5) \times (6/5) \times (6/5)$$

**Q.78 A man borrows Rs 4000 at 8% compound interest for 3 years. At the end of each year he paid Rs 500. How much amount should he pay at the end of 3rd year to clear the debt?**

- A. Rs 4254.5
- B. Rs 3465.2
- C. Rs 3485.2
- D. Rs 4345.4
- E. Rs 3915.6

**Answer : E,**

**Solution :**

Amount after 1 yr =  $4000[1 + 8/100] = 4320$

Paid 500, so  $P = 4320 - 500 = 3820$

Amount after 2nd yr =  $3820[1 + 8/100] = 4125.6$

So  $P = 4125.6 - 500 = 3625.6$

Amount after 3rd yr =  $3625.6[1 + 8/100] = 3915.6$

**Q.79 A sum of money is lent for 2 years at 20% p.a. compound interest. It yields Rs 482 more when compounded semi-annually than compounded annually. What is the sum lent?**

- A. Rs 25,600
- B. Rs 20,000
- C. Rs 26,040
- D. Rs 40,500
- E. None of these

**Answer : B,**

**Solution :**

$$P[1 + (r/2)/100]^4 - P[1 + r/100]^2 = 482$$

$$P[1 + 10/100]^4 - P[1 + 20/100]^2 = 482$$

Solve,  $P = 20,000$

**Q.80 The compound interest obtained after 1st and 2nd year is Rs 160 and Rs 172.8 respectively on a certain sum of money invested for 2 years. What is the rate of interest?**

- A. 10%
- B. 8%
- C. 8.5%
- D. 9%
- E. 9.2%

**Answer : B,**

**Solution :**



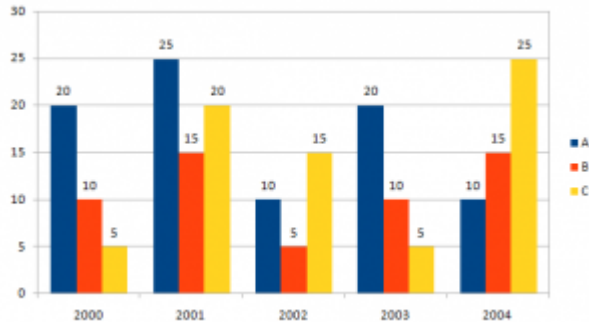
Difference in interest for both yrs =  $172.8 - 160 = 12.8$

So  $(r/100)*160 = 12.8$

Q.81 **Essay** : 81-85):Passage:

**Study the following information and Answer questions carefully.**

**Rate of interest id given in the bar graph for 3 persons from 2000 upto 2004 percentage**



In 2000 A,B,C are taken in the time duration 3 years, 2years, 4 years respectively SI required from all 3 persons are equal what will be the ratio if the principal for 3 persons are same?

- A. 3:1:1
- B. 4:3:2
- C. 2:3:6
- D. 1:2:3
- E. 3:2:4

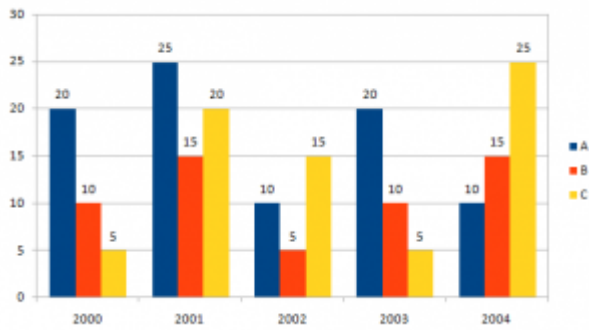
**Answer : A,**

**Solution :**

Q.82 **Essay** : 81-85):Passage:

**Study the following information and Answer questions carefully.**

**Rate of interest id given in the bar graph for 3 persons from 2000 upto 2004 percentage**



In 2005 A's sum amount 6 times in 40 years at a certain rate of interest and then how many years to become the same amount will be 14 times at the same rate of interest?

- A. 12.5% ,104yrs
- B. 21.5% ,102 yrs
- C. 145% ,20 yrs
- D. 15.75%,115yrs
- E. 25%, 112 yrs

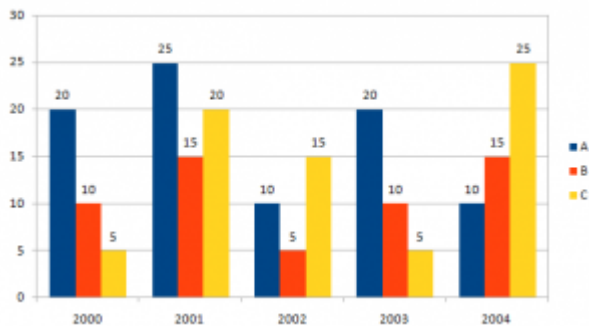
**Answer : A,**

**Solution :**

Q.83 **Essay : 81-85):**Passage:

**Study the following information and Answer questions carefully.**

**Rate of interest id given in the bar graph for 3 persons from 2000 upto 2004 percentage**



SI for a sum of 2250 for 2 years is Rs18 more than the simple interest for Rs.1950 for the same duration find the rate of interest?

- A. 2%
- B. 3%
- C. 4%

- D. 5%
- E. 6%

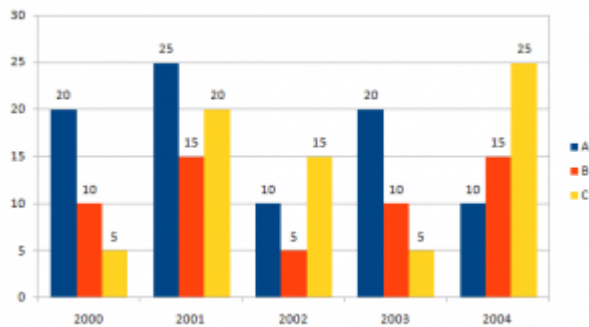
**Answer : B,**

**Solution :**

Q.84 **Essay : 81-85):**Passage:

**Study the following information and Answer questions carefully.**

**Rate of interest id given in the bar graph for 3 persons from 2000 upto 2004 percentage**



Find the CI of A in 2003 on 8000 for 9 months compounded quarterly?

- A. 1261
- B. 1621
- C. 1821
- D. 1521
- E. 1729

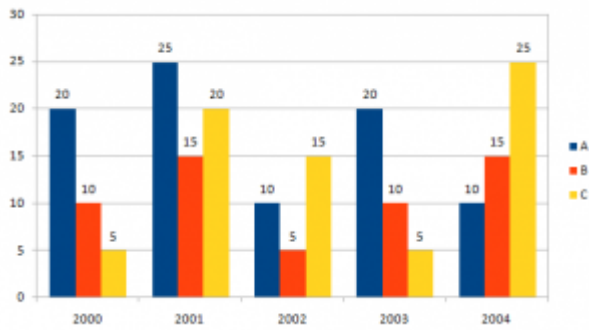
**Answer : A,**

**Solution :**

Q.85 **Essay : 81-85):**Passage:

**Study the following information and Answer questions carefully.**

**Rate of interest id given in the bar graph for 3 persons from 2000 upto 2004 percentage**



In 2005 As principal is 10,000 for 1st 2 years, next and the rate of interest are 10%, 20%, 25% respectively. After 4 years what will be amounted?

- A. 18150
- B. 17250
- C. 16250
- D. 15250
- E. 16000

**Answer : A,**

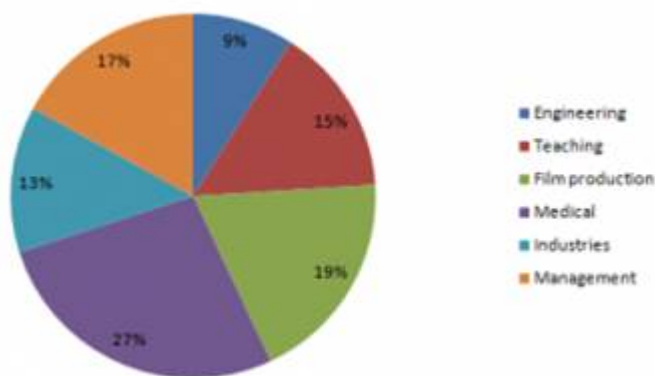
**Solution :**

Q.86 **Essay : 86-90):**Passage:

**Study the following pie chart and answer the following questions.**

**Percentage- wise distribution of employees in six different professions**

**Total number of employees = 26800**



What is the difference between the total number of employees in teaching and medical profession together and the number of employees in management profession?

- A. 6770

- B. 7700
- C. 6700
- D. 7770
- E. 7670

**Answer : C,**

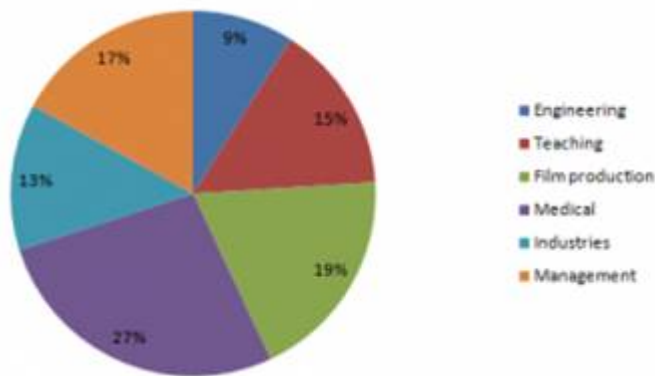
**Solution :**

Q.87 **Essay : 86-90):**Passage:

**Study the following pie chart and answer the following questions.**

**Percentage- wise distribution of employees in six different professions**

**Total number of employees = 26800**



In management profession three- fourth of the number of employees are female. What is the number of male employees in management profession?

- A. 1239
- B. 1143
- C. 1156
- D. 1289
- E. 1139

**Answer : E,**

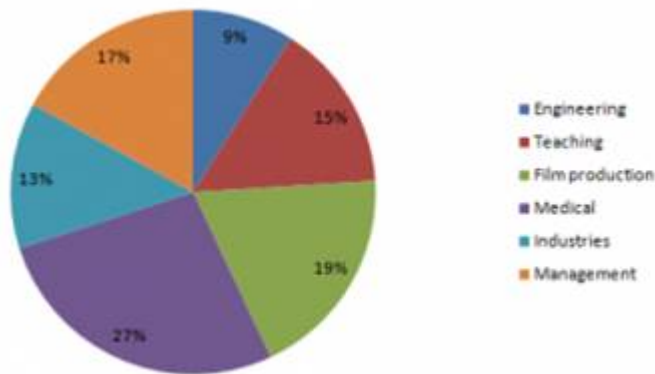
**Solution :**

Q.88 **Essay : 86-90):**Passage:

**Study the following pie chart and answer the following questions.**

**Percentage- wise distribution of employees in six different professions**

**Total number of employees = 26800**



25% of employees from film production profession went on a strike. What is the number of employees from film production who have not participated in the strike?

- A. 3271
- B. 3819
- C. 3948
- D. 1273
- E. 1246

**Answer : B,**

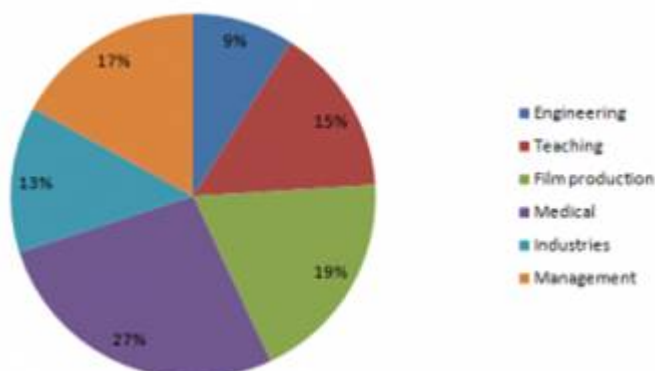
**Solution :**

Q.89 **Essay : 86-90):**Passage:

**Study the following pie chart and answer the following questions.**

**Percentage- wise distribution of employees in six different professions**

**Total number of employees = 26800**



What is the total number of employees in engineering profession and industries together?

- A. 5698
- B. 5884
- C. 5687
- D. 5896
- E. 5487

**Answer : D,**

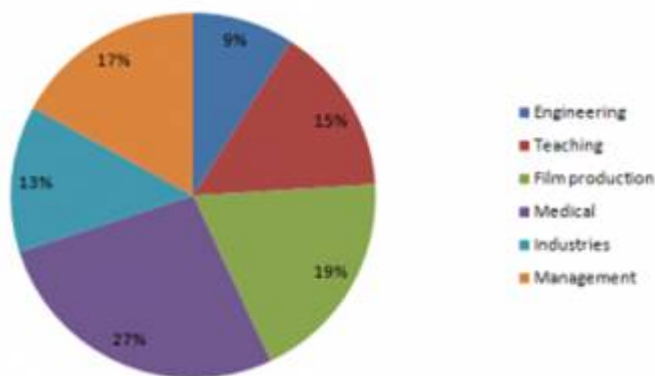
**Solution :**

Q.90 **Essay : 86-90):**Passage:

**Study the following pie chart and answer the following questions.**

**Percentage- wise distribution of employees in six different professions**

**Total number of employees = 26800**



In teaching profession in three- fifth of the teachers are not permanent, what is the number of permanent teaching in the teaching permanent?

- A. 1608
- B. 1640
- C. 1764
- D. 1704
- E. 1686

**Answer : A,**

**Solution :**

Q.91 **Essay : 91-95):**Passage:

Data related to number of candidates appeared and qualified in a competitive exam from 2 states during 5 years.

Year	Andhra Pradesh		Uttar Pradesh	
	Number of Appeared candidates	Percentage of Appeared candidates who qualified	Number of Appeared candidates	Percentage of Appeared candidates who qualified
2012	450	60%	___	30%
2013	600	43%	___	45%
2014	___	60%	280	60%
2015	480	70%	550	50%
2016	380	___	400	___

Note: Few values are missing in the table (indicated by \_\_\_).

**A candidate is expected to calculate the missing value, if it is required to answer the given questions on the basis of given data and information.**

Out of the number of qualified candidates from State Andhra Pradesh in 2014, the respective ratio of male and female candidates is 11:7. If the number of female qualified candidates from State Andhra Pradesh in 2014 is 126, what is the number of appeared candidates(both male and female) from State Andhra Pradesh in 2014?

- A. A) 630
- B. B) 510
- C. C) 570
- D. D) 650
- E. E) 540

**Answer : E,**

**Solution :**

*X — Male candidates*

$$X = 126 \times \left(\frac{11}{7}\right) = 198$$

$$\text{Total Qualified Candidates} = 198 + 126 = 324$$

$$\text{Total Appeared Candidates} = 324 \times \left(\frac{100}{60}\right) = 540$$

Q.92 **Essay** : 91-95):Passage:

Data related to number of candidates appeared and qualified in a competitive exam from 2 states during 5 years.



Year	Andhra Pradesh		Uttar Pradesh	
	Number of Appeared candidates	Percentage of Appeared candidates who qualified	Number of Appeared candidates	Percentage of Appeared candidates who qualified
2012	450	60%	___	30%
2013	600	43%	___	45%
2014	___	60%	280	60%
2015	480	70%	550	50%
2016	380	___	400	___

Note: Few values are missing in the table (indicated by \_\_\_).

**A candidate is expected to calculate the missing value, if it is required to answer the given questions on the basis of given data and information.**

Number of Appeared Candidates from State Uttar Pradesh increased by 100% from 2012 to 2013. If the total number of qualified candidates from State Uttar Pradesh in 2012 and 2013 together is 408, what is the number of appeared candidates from State Uttar Pradesh in 2012?

- A. A) 380
- B. B) 320
- C. C) 340
- D. D) 360
- E. E) 300

**Answer : C,**

**Solution :**

*x* — Total number of appeared Candidates in 2012

*2x* — Total number of appeared Candidates in 2013

$$x \times \left(\frac{30}{100}\right) + 2x \times \left(\frac{45}{100}\right) = 408$$

$$\frac{120x}{100} = 408 \rightarrow x = 340$$

Q.93 **Essay** : 91-95):Passage:

Data related to number of candidates appeared and qualified in a competitive exam from 2 states during 5 years.

Year	Andhra Pradesh		Uttar Pradesh	
	Number of Appeared candidates	Percentage of Appeared candidates who qualified	Number of Appeared candidates	Percentage of Appeared candidates who qualified
2012	450	60%	___	30%
2013	600	43%	___	45%
2014	___	60%	280	60%
2015	480	70%	550	50%
2016	380	___	400	___

Note: Few values are missing in the table (indicated by \_\_\_).

**A candidate is expected to calculate the missing value, if it is required to answer the given questions on the basis of given data and information.**

What is the difference between number of qualified candidates from State Andhra Pradesh in 2012 and that in 2013?

- A. A) 12
- B. B) 14
- C. C) 16
- D. D) 18
- E. E) 20

**Answer : A,**

**Solution :**

$$60\% \text{ of } 450 = 270$$
$$43\% \text{ of } 600 = 258$$
$$\text{Difference} = 12$$

Q.94 **Essay** : 91-95):Passage:

Data related to number of candidates appeared and qualified in a competitive exam from 2 states during 5 years.

Year	Andhra Pradesh		Uttar Pradesh	
	Number of Appeared candidates	Percentage of Appeared candidates who qualified	Number of Appeared candidates	Percentage of Appeared candidates who qualified
2012	450	60%	_____	30%
2013	600	43%	_____	45%
2014	_____	60%	280	60%
2015	480	70%	550	50%
2016	380	_____	400	_____

Note: Few values are missing in the table (indicated by \_\_\_\_).

**A candidate is expected to calculate the missing value, if it is required to answer the given questions on the basis of given data and information.**

If the average number of qualified candidates from State Uttar Pradesh in 2014, 2015 and 2016 is 210, what is the number of qualified candidates from state Uttar Pradesh in 2016?

- A. A) 191
- B. B) 195
- C. C) 183
- D. D) 187
- E. E) 179

**Answer : D,**

**Solution :**

*Average no of qualified students in 2014,2015,2016 = 210  
Total no of qualified students in 2014,2015,2016 = 630  
Qualified students in 2016 = (630 - (60% Of 280 + 50% Of 550)) = 630 - 443 = 187*

Q.95 **Essay** : 91-95):Passage:

Data related to number of candidates appeared and qualified in a competitive exam from 2 states during 5 years.

Year	Andhra Pradesh		Uttar Pradesh	
	Number of Appeared candidates	Percentage of Appeared candidates who qualified	Number of Appeared candidates	Percentage of Appeared candidates who qualified
2012	450	60%	_____	30%
2013	600	43%	_____	45%
2014	_____	60%	280	60%
2015	480	70%	550	50%
2016	380	_____	400	_____

Note: Few values are missing in the table (indicated by \_\_).

**A candidate is expected to calculate the missing value, if it is required to answer the given questions on the basis of given data and information.**

If the respective ratio between number of qualified candidates from State Andhra Pradesh in 2015 and 2016 is 14:9, what is the number of qualified candidates from State Andhra Pradesh in 2016?

- A. A) 252
- B. B) 207
- C. C) 216
- D. D) 234
- E. E) 198

**Answer : C,**

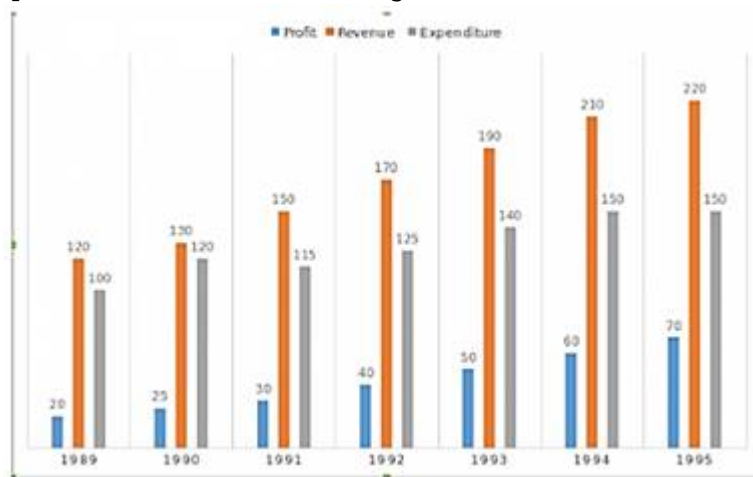
**Solution :**

*x* — Number of qualified candidates in 2016

$$x = 336 \times \left(\frac{14}{9}\right) = 216$$

Q.96 **Essay** : 96-100):Passage:

Following Bar chart depicts the performance of Company A over the years. Answer the questions that follow data is given in lakhs.



The average revenue collected in the given 7 years is approximately

- A. Rs. 164 lakh
- B. 167 lakh

- C. 170 lakh
- D. 175 lakh
- E. 180 lakh

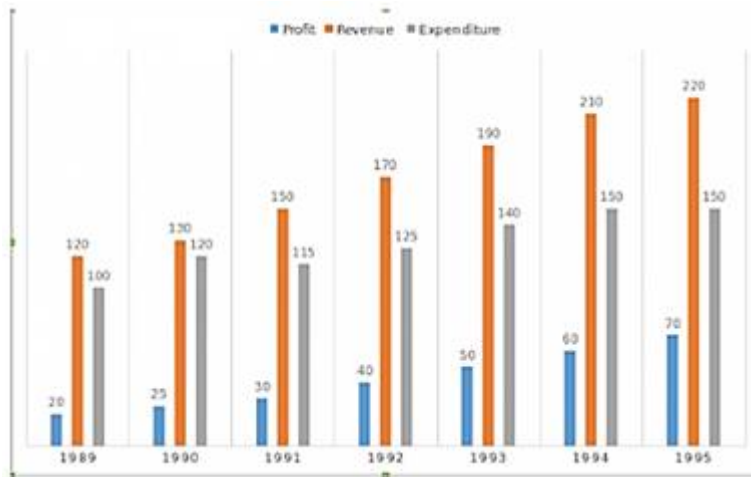
**Answer : C,**

**Solution :**

$$\text{Average revenue of 7 years is} = \frac{120 + 130 + 150 + 170 + 190 + 210 + 220}{7} = 170$$

Q.97 **Essay :** 96-100):Passage:

Following Bar chart depicts the performance of Company A over the years. Answer the questions that follow data is given in lakhs.



The expenditure for the 7 years together form approximately what percent of the revenues during the same period?

- A. 76%
- B. 67%
- C. 62%
- D. 83%
- E. 85%

**Answer : A,**

**Solution :**

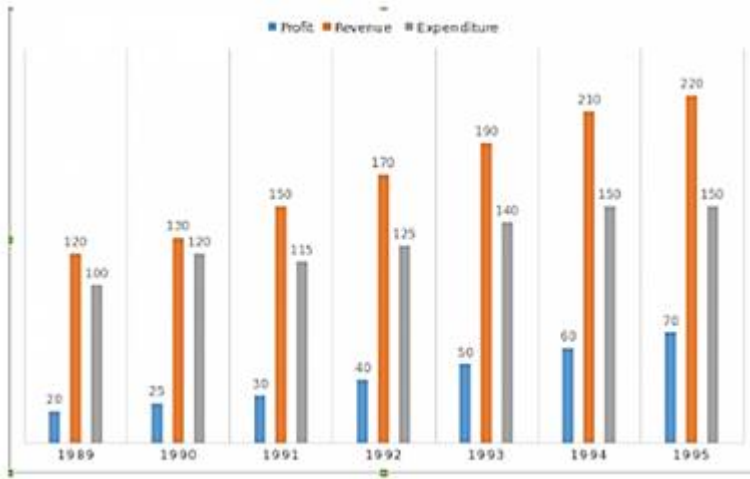
*If we add the expenses of 7 years then it will add up to 900.*

*And Revenue of 7 years adds up to 1190.*

*Hence, the required answer is  $\left(\frac{900}{1190}\right) \times 100 = 75.63\%$  approx.*

Q.98 **Essay** : 96-100):Passage:

Following Bar chart depicts the performance of Company A over the years. Answer the questions that follow data is given in lakhs.



Which year showed the greatest percentage increase in profit as compared to the previous year?

- A. 1993
- B. 1994
- C. 1990
- D. 1992
- E. None of these

**Answer : D,**

**Solution :**

*From the above table clearly see the gap of profits in 1992 is more.*

$$\left(\frac{10}{30}\right) \times 100 = 33.33\%$$

Q.99 **Essay** : 96-100):Passage:

Following Bar chart depicts the performance of Company A over the years. Answer the questions that follow data is given in lakhs.



In which year was the percentage of growth in expenditure maximum as compared to the previous year?

- A. 1993
- B. 1995
- C. 1991
- D. 1990
- E. None of these

**Answer : D,**

**Solution :**

From the above table clearly see the expenditure is maximum in 1990.

Q.100 **Essay** : 96-100): Passage:

Following Bar chart depicts the performance of Company A over the years. Answer the questions that follow data is given in lakhs.



The average profit collected in the given 7 years is approximately

- A. Rs. 44 lakh
- B. Rs. 42 lakh
- C. 46 lakh
- D. 48 lakh
- E. 40 lakh

**Answer : B,**

**Solution :**

$$\text{Average profit of 7 years is } = \frac{20 + 25 + 30 + 40 + 50 + 60 + 70}{7} = 42.14$$