

Section : Quantitative Aptitude(Basic Arithmetic Skill)

Q.1 What is the value of the following?

$$-15 + 90 \div [89 - \{9 \times 8 + (33 - 3 \times 7)\}]$$

- Ans
- 1. 5
  - 2. 2
  - 3. 3
  - 4. 4

Question ID : 424429473  
Status : Answered  
Chosen Option : 3

Q.2 Richa travels from A to B at the speed of 15 km/h, from B to C at 20 km/h, and from C to D at 30 km/h.  
If AB = BC = CD, then find the Richa's average speed.

- Ans
- 1. 18 km/h
  - 2. 17 km/h
  - 3. 20 km/h
  - 4. 19 km/h

Question ID : 424429457  
Status : Answered  
Chosen Option : 3

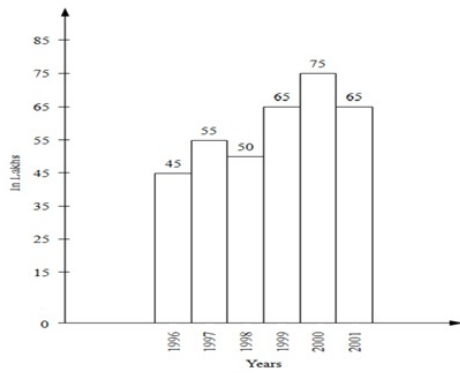
Q.3 Ram sold a motorcycle for ₹70000 at 25% profit. For what price should he sell a motorcycle to gain 30% profit?

- Ans
- 1. ₹72,700
  - 2. ₹72,900
  - 3. ₹72,800
  - 4. ₹72,600

Question ID : 424429462  
Status : Answered  
Chosen Option : 3

**Q.4** The following graph given the annual percent profit earned by a company during the period 1996-2001. Study the graph carefully and answer the questions that follow.

$$\% \text{ profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$

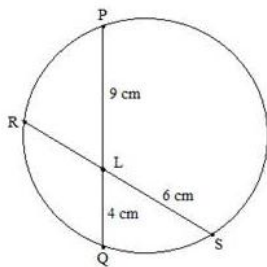


The period in which the profit of the company has increased fastest is:

- Ans  1. 1998-1999  
 2. 2000-2001  
 3. 1997-1998  
 4. 1996-1997

Question ID : 424429478  
 Status : Answered  
 Chosen Option : 1

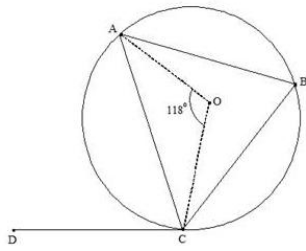
**Q.5** In the given figure, chords PQ and RS intersect each other at point L. Find the length of RL.



- Ans  1. 3 cm  
 2. 6 cm  
 3. 8 cm  
 4. 2 cm

Question ID : 424429465  
 Status : Answered  
 Chosen Option : 2

**Q.6** In the given figure, BC is a chord and CD is a tangent through the point C. If  $\angle AOC = 118^\circ$ , then find the  $\angle ACD$ .



- Ans**
- 1.  $59^\circ$
  - 2.  $65^\circ$
  - 3.  $56^\circ$
  - 4.  $63^\circ$

Question ID : 424429466  
Status : Answered  
Chosen Option : 1

**Q.7** M is the circumcentre of  $\triangle ABC$  with circumradius 15 cm. Let  $BC = 24$  cm and  $ML$  is perpendicular to  $BC$ . Then the length of  $ML$  is:

- Ans**
- 1. 9 cm
  - 2. 12 cm
  - 3. 8 cm
  - 4. 10 cm

Question ID : 424429468  
Status : Answered  
Chosen Option : 1

**Q.8** The average age of 25 men is 28 years. 5 new men of an average age of 25 years joined them. Find the average age of all the men together.

- Ans**
- 1. 27.5 years
  - 2. 29.5 years
  - 3. 26.5 years
  - 4. 28.5 years

Question ID : 424429459  
Status : Answered  
Chosen Option : 1

Q.9 Which of the following options is completely divisible by 11

- Ans
- 1. 809781
  - 2. 107611
  - 3. 116571
  - 4. 963391

Question ID : 424429472  
Status : Answered  
Chosen Option : 4

Q.10 If  $a + b + c = 2$ ,  $\frac{1}{a} + \frac{1}{b} + \frac{1}{c} = 0$ ,  $ac = \frac{4}{b}$  and  $a^3 + b^3 + c^3 = 28$ , find the value of  $a^2 + b^2 + c^2$ .

- Ans
- 1. 8
  - 2. 6
  - 3. 10
  - 4. 12

Question ID : 424429471  
Status : Marked For Review  
Chosen Option : 1

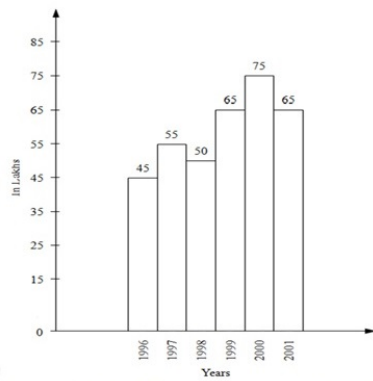
Q.11 If  $x - 2y = 3$  and  $xy = 5$ , find the value of  $x^2 - 4y^2$ .

- Ans
- 1. 22
  - 2. 20
  - 3. 23
  - 4. 21

Question ID : 424429469  
Status : Answered  
Chosen Option : 4

**Q.12** The following graph given the annual percent profit earned by a company during the period 1996-2001. Study the graph carefully and answer the questions that follow.

$$\% \text{ profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$



The expenditure of the company during the year 1996 was ₹30 crores. The income of the company in that year was (in crores ₹):

- Ans**
- 1. 43.5
  - 2. 45
  - 3. 44.5
  - 4. 44

Question ID : 424429480  
 Status : Answered  
 Chosen Option : 1

**Q.13** ₹6,300 is divided between X, Y, Z, such that X : Y = 7 : 5 and Y : Z = 4 : 3. Find the share of Y.

- Ans**
- 1. ₹1,800
  - 2. ₹2,000
  - 3. ₹2,200
  - 4. ₹2,400

Question ID : 424429463  
 Status : Answered  
 Chosen Option : 2

Q.14 If  $\frac{\cos\theta + \sin\theta}{\cos\theta - \sin\theta} = 8$ , then the value of  $\cot\theta$  is equal to:

- Ans
- 1.  $\frac{6}{5}$
  - 2.  $\frac{9}{7}$
  - 3.  $\frac{7}{6}$
  - 4.  $\frac{8}{7}$

Question ID : 424429474  
 Status : Answered  
 Chosen Option : 2

Q.15 List the price of a bike is 15% more than its cost price. It is sold at a discount of 20%. Find the dealer's loss or profit percentage.

- Ans
- 1. Profit 8%
  - 2. Profit 9%
  - 3. Loss 9%
  - 4. Loss 8%

Question ID : 424429460  
 Status : Answered  
 Chosen Option : 3

Q.16 Kavita's attendance in her school for the academic session 2018-2019 was 216 days. On computing her attendance, it was observed that her attendance was 90%. The total working days of the school were:

- Ans
- 1. 194
  - 2. 250
  - 3. 240
  - 4. 195

Question ID : 424429461  
 Status : Answered  
 Chosen Option : 3

Q.17 If  $\cos(x - y) = \frac{\sqrt{3}}{2}$  and  $\sin(x + y) = \frac{1}{2}$ , then the value of  $x$  ( $0 < x < 90$ ) is:

- Ans
- 1.  $60^\circ$
  - 2.  $15^\circ$
  - 3.  $45^\circ$
  - 4.  $30^\circ$

Question ID : 424429476  
 Status : Answered  
 Chosen Option : 4

Q.18 The least value of  $8\csc^2\theta + 25\sin^2\theta$  is:

- Ans
- 1.  $40\sqrt{2}$
  - 2.  $30\sqrt{2}$
  - 3.  $10\sqrt{2}$
  - 4.  $20\sqrt{2}$

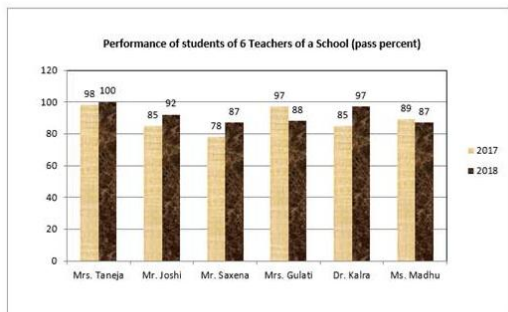
Question ID : 424429475  
 Status : Answered  
 Chosen Option : 4

Q.19 In  $\triangle XYZ$ , L and M are the middle points of the sides XY and XZ, respectively. R is a point on the segment LM, such that  $LR : RM = 1 : 2$ . If  $LR = 3$  cm, then YZ is equal to:

- Ans
- 1. 16 cm
  - 2. 18 cm
  - 3. 19 cm
  - 4. 17 cm

Question ID : 424429467  
 Status : Answered  
 Chosen Option : 2

Q.20 The given graph shows the pass percentage of students taught by six teachers of a school in the Senior Secondary Board exam.



Identify the teacher whose students have shown the maximum improvement.

- Ans
- 1. Mr. Joshi
  - 2. Mr. Saxena
  - 3. Mrs. Taneja
  - 4. Dr. Kalra

Question ID : 424429479  
 Status : Answered  
 Chosen Option : 4

Q.21 The diagonal of rectangle is 15 cm and length is 12 cm. Find the area of the rectangle.

- Ans
- 1. 114 cm<sup>2</sup>
  - 2. 108 cm<sup>2</sup>
  - 3. 116 cm<sup>2</sup>
  - 4. 112 cm<sup>2</sup>

Question ID : 424429458  
Status : Answered  
Chosen Option : 2

Q.22 In how many years shall ₹3,500 invested at the rate of 10% simple interest per annum, amount to ₹4,500?

- Ans
- 1.  $2\frac{5}{7}$  years
  - 2.  $2\frac{3}{7}$  years
  - 3.  $2\frac{4}{7}$  years
  - 4.  $2\frac{6}{7}$  years

Question ID : 424429464  
Status : Answered  
Chosen Option : 4

Q.23 If  $\cot A = k$ , then  $\sin A$  is equal to:

(presume that A is an acute angle)

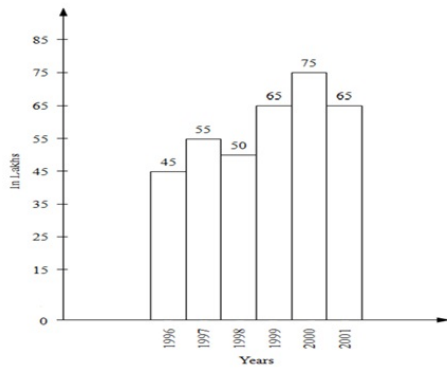
- Ans
- 1.  $\frac{1}{\sqrt{1+k^2}}$
  - 2.  $\frac{1}{k}$
  - 3.  $\frac{k^2}{\sqrt{1+k^2}}$
  - 4.  $-\frac{1}{k}$

Question ID : 424429470  
Status : Answered  
Chosen Option : 1



**Q.24** The following graph represents the annual percentage profit earned by a company during the period 1996 - 2001. Study the graph carefully and answer the questions that follow.

$$\% \text{ profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$



The profit earned by the company is maximum in the year:

- Ans
- 1. 1999
  - 2. 1996
  - 3. 2001
  - 4. 2000

Question ID : 424429477  
Status : Answered  
Chosen Option : 4

**Q.25** 15 men can complete a task in 10 days. In how many days can 20 men complete the same task?

- Ans
- 1. 8.5 days
  - 2. 7.5 days
  - 3. 5.5 days
  - 4. 6.5 days

Question ID : 424429456  
Status : Answered  
Chosen Option : 2