

Section : **Quantitative Aptitude**

**Q.1** Two positive numbers are in the ratio 8 : 13. If the sum of their squares is 2097, then the sum of the two numbers is:

- Ans**
- 1. 64
  - 2. 63
  - 3. 60
  - 4. 65

Question ID : **6549787694**  
Status : **Answered**  
Chosen Option : **2**

**Q.2** The circumference of a circle is ' $a\pi$ ' units and the area of the circle is ' $b\pi$ ' square units. If a : b is equal to 4 : 5, then the radius of the circle is:

- Ans**
- 1. 2 cm
  - 2. 5 cm
  - 3. 3 cm
  - 4. 2.5 cm

Question ID : **6549787696**  
Status : **Answered**  
Chosen Option : **4**

**Q.3** The present population of a village (males and females) is 7640. If the number of males increases by 25% and the number of females increases by 15%, then the population will become 9214. The difference between the present population of males and females in the village is:

- Ans**
- 1. 940
  - 2. 960
  - 3. 820
  - 4. 920

Question ID : **6549787692**  
Status : **Not Attempted and Marked For Review**  
Chosen Option : **--**

**Q.4** If the adjacent sides of a rectangle whose perimeter is 60 cm are in the ratio 3 : 2, then what will be the area of the rectangle?

- Ans**
- 1. 864 cm<sup>2</sup>
  - 2. 300 cm<sup>2</sup>
  - 3. 60 cm<sup>2</sup>
  - 4. 216 cm<sup>2</sup>

Question ID : **6549789406**  
Status : **Answered**  
Chosen Option : **4**

**Q.5** If the simple interest on a certain sum of money borrowed for 4 years at 9.5% per annum exceeds the simple interest on the same sum for 3 years at 12.5% per annum by ₹225, then the sum borrowed is:

- Ans**
- 1. ₹42,000
  - 2. ₹48,000
  - 3. ₹35,000
  - 4. ₹45,000

Question ID : **6549787695**  
Status : **Answered**  
Chosen Option : **4**

**Q.6** If  $x^4 - 12x^2 + 1 = 0$ , then what will be the value of  $x^4 + \frac{1}{x^4}$ ?

- Ans**
- 1. 10
  - 2. 146
  - 3. 144
  - 4. 142

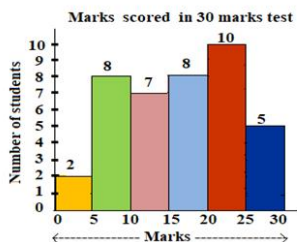
Question ID : **6549789419**  
Status : **Answered**  
Chosen Option : **4**

**Q.7** If the angle between the internal bisectors of two angles  $\angle B$  and  $\angle C$  of a triangle  $ABC$  is  $125^\circ$ , then the value of  $\angle A$  is:

- Ans**
- 1.  $62^\circ$
  - 2.  $70^\circ$
  - 3.  $72^\circ$
  - 4.  $65^\circ$

Question ID : **6549787698**  
Status : **Answered**  
Chosen Option : **2**

**Q.8** The histogram shows the marks scored by 40 students in a test with maximum 30 marks. How many students scored 10 or more marks?



- Ans**
- 1. 30
  - 2. 10
  - 3. 23
  - 4. 38

Question ID : **6549789425**  
 Status : **Marked For Review**  
 Chosen Option : 1

**Q.9** If  $3 \cot A = 4 \tan A$  and  $A$  is an acute angle, then what will be the value of  $\sec A$  ?

- Ans**
- 1.  $\frac{1}{\sqrt{3}}$
  - 2.  $\frac{\sqrt{21}}{3}$
  - 3.  $\frac{1}{2}$
  - 4.  $\frac{\sqrt{7}}{2}$

Question ID : **6549789424**  
 Status : **Answered**  
 Chosen Option : 4

**Q.10** If  $x + \frac{81}{x} = 18$  where  $x > 0$ , then the value of  $x^2 + \frac{162}{x^2}$  is:

- Ans**
- 1. 81
  - 2. 85
  - 3. 78
  - 4. 83

Question ID : **6549787700**  
 Status : **Not Attempted and Marked For Review**  
 Chosen Option : --

Q.11 What is the value of  $\frac{\cos^2 20^\circ + \cos^2 70^\circ}{\sin^2 90^\circ} - \tan^2 45^\circ$ ?

- Ans
- 1. 1
  - 2. 0
  - 3. -2
  - 4. -1

Question ID : 6549789422  
Status : Answered  
Chosen Option : 2

Q.12 Simplify the following expression.

$$\frac{3\frac{2}{3} - 5\frac{7}{9} \div \frac{1}{3} \times 1\frac{2}{13}}{\frac{2}{3} \text{ of } 1\frac{1}{3} + \frac{1}{3}}$$

- Ans
- 1.  $-29\frac{2}{5}$
  - 2.  $-2\frac{77}{104}$
  - 3.  $-6\frac{1}{8}$
  - 4.  $-14\frac{1}{4}$

Question ID : 6549789421  
Status : Answered  
Chosen Option : 3

Q.13 If  $x - \frac{1}{x} = 2\sqrt{2}$ , then what will be the value of  $x^3 - \frac{1}{x^3}$ ?

- Ans
- 1.  $12\sqrt{2}$
  - 2.  $20\sqrt{2}$
  - 3.  $10\sqrt{2}$
  - 4.  $22\sqrt{2}$

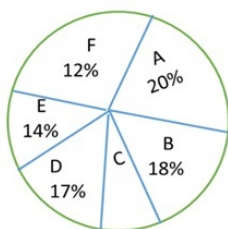
Question ID : 6549789418  
Status : Answered  
Chosen Option : 4

**Q.14** Mohan takes 2 hours more than Kishore to walk 63 km. If Mohan increases his speed by 50%, then he can make it in 1 hour less than Kishore. How much time does Kishore take to walk 63 km?

- Ans**
- 1. 6 hours
  - 2. 7 hours
  - 3. 5 hours
  - 4. 9 hours

Question ID : **6549787688**  
 Status : **Answered**  
 Chosen Option : **4**

**Q.15** The following pie chart represents the percentage-wise distribution of 300 students of class X in a school in six different sections A, B, C, D, E and F.



The given table shows the number of boys of class X in six different sections A, B, C, D, E and F.

| Section     | A  | B  | C  | D  | E     | F  |
|-------------|----|----|----|----|-------|----|
| No. of boys | 36 | 26 | 34 | 28 | ----- | 20 |

The total number of boys in sections A, B and D together is what percentage more than the total number of girls in sections A, B and D together?

- Ans**
- 1. 20%
  - 2. 30%
  - 3. 18%
  - 4. 15%

Question ID : **6549787711**  
 Status : **Answered**  
 Chosen Option : **1**

**Q.16** Suman and Lata working together can complete a task in 8 days. If Lata can complete the same task in 12 days, then how many days will Suman take to complete the same task?

- Ans**
- 1. 18
  - 2. 24
  - 3. 10
  - 4. 15

Question ID : **6549789404**  
 Status : **Answered**  
 Chosen Option : **2**

**Q.17** Amit purchased stationery marked for ₹8,000 at 12% discount and spent ₹160 on transportation. He sold the stationery at the marked price. Find his profit percentage.

- Ans**
- 1. 10
  - 2. 12
  - 3.  $11\frac{1}{9}$
  - 4.  $12\frac{1}{2}$

Question ID : **6549789410**  
Status : **Marked For Review**  
Chosen Option : 1

**Q.18** Chord AB of a circle with radius 5 cm is at a distance of 4 cm from the centre O. If tangents drawn at A and B intersect at P, then find the length of the tangent AP.

- Ans**
- 1. 2.4 cm
  - 2. 3 cm
  - 3. 3.75 cm
  - 4. 7.5 cm

Question ID : **6549789414**  
Status : **Not Attempted and Marked For Review**  
Chosen Option : --

**Q.19** Points D, E and F are on the sides AB, BC and AC, respectively, of triangle ABC such that AE, BF and CD bisect  $\angle A$ ,  $\angle B$  and  $\angle C$ , respectively. If AB = 6 cm, BC = 7 cm and AC = 8 cm, then what will be the length of BE?

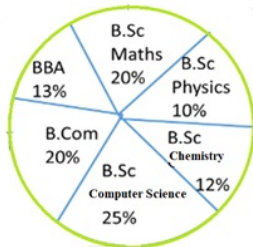
- Ans**
- 1. 3.5 cm
  - 2. 4 cm
  - 3. 3.6 cm
  - 4. 3 cm

Question ID : **6549789416**  
Status : **Not Attempted and Marked For Review**  
Chosen Option : --

**Q.20** Study the given pie chart and answer the question that follows.

Total number of students admitted in a college = 700.

Distribution of the percentage of students in various courses.



Percentage-wise distribution of the number of boys.

| Course                 | Number of boys |
|------------------------|----------------|
| B.Sc. Maths            | 40%            |
| B.Sc. Physics          | 68%            |
| B.Sc. Chemistry        | 58%            |
| B.Sc. Computer Science | 80%            |
| B.Com.                 | 75%            |
| BBA                    | 65%            |

The difference between the number of boys and the number of girls admitted in B.Com. is:

- Ans**
- 1. 60
  - 2. 65
  - 3. 70
  - 4. 75

Question ID : **6549789628**  
 Status : **Answered**  
 Chosen Option : **3**

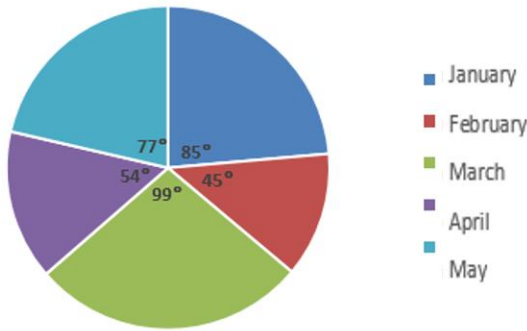
**Q.21** A customer availed a 10% discount on the purchase of a table and paid ₹4,950 for it. How much money would he have saved if he had bargained to get 12% discount?

- Ans**
- 1. ₹99
  - 2. ₹660
  - 3. ₹108.90
  - 4. ₹110

Question ID : **6549789408**  
 Status : **Marked For Review**  
 Chosen Option : **2**

**Q.22** Study the given pie chart and answer the question that follows.  
The pie chart shows the distribution (degree wise) of the number of computers sold by a shopkeeper during five months.

Total Number of Computers Sold = 5400



By what percentage is the total number of computers sold in February and March more than the number of computers sold in April and May (correct to one decimal place)?

- Ans**
- 1. 8.8%
  - 2. 10.6%
  - 3. 11.5%
  - 4. 9.9%

Question ID : 6549786902  
Status : Answered  
Chosen Option : 4

**Q.23** The average of the squares of four consecutive odd natural numbers is 201. The average of 7 times of the largest number and 3 times of the smallest number is:

- Ans**
- 1. 76
  - 2. 78
  - 3. 72
  - 4. 66

Question ID : 6549787690  
Status : Answered  
Chosen Option : 1

**Q.24** If  $\frac{\sin^2 \theta}{\tan^2 \theta - \sin^2 \theta} = 5$ , then the value of  $\frac{24 \cos^2 \theta - 15 \sec^2 \theta}{6 \cos^2 \theta - 7 \cot^2 \theta}$  is:

- Ans**
- 1. 1
  - 2. 4
  - 3. 6
  - 4. 2

Question ID : 6549787706  
Status : Answered  
Chosen Option : 4



**Q.25** When a positive integer ' $n$ ' is divided by 12, the remainder is 5. What will be the remainder if  $8n^2 + 7$  is divided by 12?

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

Question ID : **6549787703**  
Status : **Answered**  
Chosen Option : **2**