Section : Quantitative Aptitude

Q.1 Find the compound interest (in ₹) on a sum of ₹7,500 for 4 years if the rate of interest is 20% per annum for the first two years and 10% per annum for the next two years. (The interest is compounded annually.)

Ans
1. 6,558
2. 5,658
3. 5,586
4. 5,568

Question ID : 6549787291
Status : Not Answered
Chosen Option : --

Q.2 If $x + \frac{1}{3x} = 5$, then the value of $27x^3 + \frac{1}{x^3}$ will be:

Ans
1. 3042
2. 3024
3. 3420
4. 3240

Question ID : 6549787296
Status : Answered
Chosen Option : 4

Q.3 The value of $\frac{284}{5} \div [\left(\frac{4}{5}\right) \times (15+35) - 11\frac{3}{5}]$ is:

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

Question ID : 6549788714
Status : Answered
Chosen Option : 4

Q.4 If the number 4A306768B2 is divisible by both 8 and 11, then the smallest possible values of A and B will be:

Ans
1. A = 5, B = 4
2. A = 5, B = 2
3. A = 3, B = 5
4. A = 5, B = 3

Question ID : 6549787299
Status : Answered
Chosen Option : 4

Q.5 Study the given pie charts and answer the question that follows.

The pie charts show the distribution of students of graduate and postgraduate levels in five different institutes P, Q, R, S and T in a town.

(i) Total number of students of graduate level in five different institutes = 12400

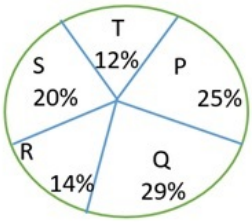


Fig.(i)

(ii) Total number of students of postgraduate level in five different institutes = 8000

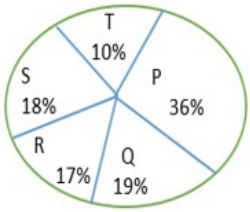


Fig.(ii)

The difference between the average number of students of graduate level in institutes P, R and T to the average number of students of postgraduate level in institutes P, R and T is:

Ans
1. 428 ✔
2. 426 ✘
3. 328 ✘
4. 425 ✘

Question ID : 6549787307
Status : Answered
Chosen Option : 2

Q.6 In a workshop with 80 students and 10 resource persons, sweets were distributed at the end of the workshop. The amount spent for distributing sweets to each student was 30% of the total number of students and amount spent towards each resource person was 40% of the total number of students. The total amount spent for sweets distribution in the workshop was:

Ans
1. ₹2,420 ✘
2. ₹2,440 ✘
3. ₹2,400 ✘
4. ₹2,240 ✔

Question ID : 6549787288
Status : Answered
Chosen Option : 4

Q.7 If $sin^2x - 3cos^2x = 0$, then the value of x $(0 < x < 90°)$ is:

Ans
1. $60°$ ✔
2. $45°$ ✘
3. $15°$ ✘
4. $30°$ ✘

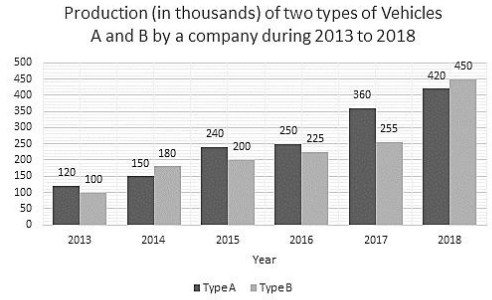
Question ID : 6549788717
Status : Answered
Chosen Option : 1

Q.8 If $1 + 4x^2 + 16x^4 = 512$, and $1 - 2x + 4x^2 = 64$, then the value of $1 + 2x + 4x^2$ is:

Ans
1. 6 ✘
2. 8 ✔
3. 10 ✘
4. 12 ✘

Question ID : 6549788711
Status : Answered
Chosen Option : 2

Q.9 Study the given graph and answer the question that follows.



$31\frac{1}{4}\%$ of the total number of vehicles of type A produced in 2013, 2015 and 2017 is equal to the number of vehicles of type B produced in the year:

Ans
1. 2016 ✔
2. 2015 ✘
3. 2018 ✘
4. 2017 ✘

Question ID : 6549786700
Status : Answered
Chosen Option : 4

Q.10 x, y and z are three positive numbers such that y is $\frac{4}{5}$ times of x and z is $\frac{5}{8}$ times of y. If the average of reciprocals of the numbers x, y and z is $\frac{17}{240}$, then the average of 3 times of x and 5 times of y will be:

Ans
1. 60
2. 45
3. 70
4. 40

Question ID : 6549787286
Status : Answered
Chosen Option : 3

Q.11 If $2x + 3y + 4z = 11$, $8x^3 + 27y^3 + 64z^3 = 105$ and $xyz = 1$, then the value $4x^2 + 9y^2 + 16z^2 - 6xy - 12yz - 8xz$ is:

Ans
1. 3
2. 4
3. 5
4. 6

Question ID : 6549788712
Status : Answered
Chosen Option : 1

Q.12 If the length of a chord of a circle, that makes an angle of 60° with the tangent drawn at one end point of the chord, is $8\sqrt{3}$ cm, then the radius of the circle will be:

Ans
1. 6 cm
2. 8 cm
3. 5 cm
4. 7 cm

Question ID : 6549787292
Status : Not Answered
Chosen Option : --

Q.13 Gaurav bought some articles at 5 for ₹6 and sold them at 10 for ₹11. His loss percentage is:

Ans
1. $8\frac{2}{3}\%$
2. $7\frac{1}{3}\%$
3. $8\frac{1}{3}\%$
4. $7\frac{2}{3}\%$

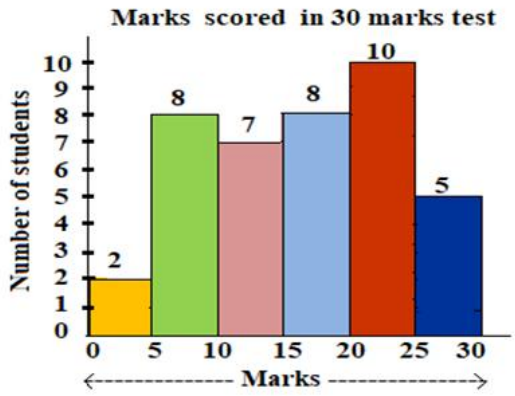
Question ID : 6549788703
Status : Answered
Chosen Option : 3

Q.14 15 persons working 6 hours per day earn ₹900. How much money will 20 persons earn, working 10 hours per day?

Ans
1. ₹2,100
2. ₹1,500
3. ₹1,800
4. ₹2,000

Question ID : 6549788697
Status : Answered
Chosen Option : 4

Q.15 The histogram shows the marks scored by 40 students in a test with maximum 30 marks.



What is the percentage of the students who scored less than 20 marks?

Ans
1. 25
2. 87.5
3. 50
4. 62.5

Question ID : 6549789225
Status : Answered
Chosen Option : 4

Q.16 If $\frac{5\cot\theta+\sqrt{3}\,\mathrm{cosec}\,\theta}{2\sqrt{3}\,\mathrm{cosec}\,\theta+3\cot\theta}=1, 0°<\theta<90°$, then the value of $\frac{\frac{7}{2}\cot^2\theta-\frac{3}{4}\mathrm{cosec}^2\theta}{4\sin^2\theta+\frac{3}{2}\tan^2\theta}$ will be:

Ans
1. 2
2. 7
3. 5
4. 3

Question ID : 6549787302
Status : Not Answered
Chosen Option : --

Q.17 The sides of a triangle are in the ratio $\frac{1}{3}:\frac{1}{5}:\frac{1}{4}$ and its perimeter is 141 cm. The difference between the greatest side and the smallest side is:

Ans
1. 18 cm
2. 12 cm
3. 24 cm
4. 15 cm

Question ID : 6549787290
Status : Answered
Chosen Option : 3

Q.18 With a speed of 48 km/h, Raghu is able to complete his journey in 2 hours 28 minutes. If he wants to cover the same distance in 1 hour 36 minutes, then what should be his new speed?

Ans
1. 74 km/h
2. 64 km/h
3. 66 km/h
4. 72 km/h

Question ID : 6549787284
Status : Answered
Chosen Option : 1

Q.19 If S is a point on side QR of a triangle PQR such that QS = 10 cm, QR = 18 cm and $\angle PSR = \angle QPR$, then the length of PR will be:

Ans
1. 14 cm
2. 16 cm
3. 12 cm
4. 15 cm

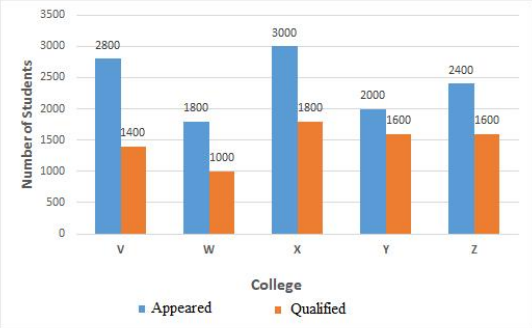
Question ID : 6549787294
Status : Answered
Chosen Option : 2

Q.20 In any triangle, if the angles are in the ratio 1 : 2 : 3, then what will be the ratio of the sides opposite to them?

Ans
1. $1:\sqrt{3}:2$
2. $2:\sqrt{3}:1$
3. $1:\sqrt{3}:1$
4. $2:2:\sqrt{3}$

Question ID : 6549788709
Status : Answered
Chosen Option : 1

Q.21 Study the following graph and answer the question that follows.
Number of students that appeared and qualified, from various colleges, at a scholarship examination.



What is the ratio of the number of students that appeared to the number of students that qualified at the scholarship examination from College X?

Ans
1. 5 : 4
2. 5 : 2
3. 4 : 3
4. 5 : 3

Question ID : 6549788718
Status : Answered
Chosen Option : 4

Q.22 The value of $\sqrt{\cos 60° \cos 30° - \sin 60° \sin 30°}$ is:

Ans
1. 1
2. $\frac{1}{\sqrt{2}}$
3. 0
4. $\frac{\sqrt{3}}{2}$

Question ID : 6549788715
Status : Answered
Chosen Option : 3

Q.23 In a circle with center O, PA and PB are tangents to the circle at A and B, respectively, from an external point P. If, $\angle AOB = 116°$ then what is the measure of $\angle OPB$?

Ans
1. 30°
2. 32°
3. 90°
4. 58°

Question ID : 6549788707
Status : Answered
Chosen Option : 2

Q.24 The sum of the squares of the sides of a rhombus is 1600 cm^2. What is the side of the rhombus?

Ans
1. 25 cm
2. 15 cm
3. 20 cm
4. 10 cm

Question ID : 6549788699
Status : Answered
Chosen Option : 3

Q.25 The marked price of a juicer mixer is ₹5,500, and three successive discounts of 40%, 30% and 20% are given on this marked price. The selling price of the juicer mixer is:

Ans
1. ₹1,868
2. ₹1,848
3. ₹1,858
4. ₹1,835

Question ID : 6549788701
Status : Answered
Chosen Option : 2