

Section : Quantitative Aptitude(Basic Arithmetic Skill)

Q.1 ₹4,000 is given at 5% per annum for one year and interest is compounded half yearly. ₹2,000 is given at 40% per annum compounded quarterly for 1 year. The total interest received is nearest to:

- Ans
- 1. ₹1,333.30
 - 2. ₹1,888.80
 - 3. ₹1,130.70
 - 4. ₹1,444.40

Question ID : 8161612695
Status : Not Answered
Chosen Option : --

Q.2 If the number $59a44b$ is divisible by 36, then the maximum value of $a + b$ is:

- Ans
- 1. 16
 - 2. 14
 - 3. 12
 - 4. 10

Question ID : 8161612703
Status : Answered
Chosen Option : 2

Q.3 A person marks his 40 items at 20% of the cost price. He sells 10 items at a 10% discount and 20 items at a 15% discount on the marked price. What is the maximum discount (rounded off) he can offer on the remaining items if he still gets some profit?

- Ans**
- 1. 28%
 - 2. 26%
 - 3. 21%
 - 4. 25%

Question ID : 8161612691
Status : Answered
Chosen Option : 2

Q.4 A can finish a piece of work in a certain number of days. B takes 45% more number of days to finish the same work independently. They worked together for 58 days and then the remaining work was done by B alone in 29 days. In how many days could A have completed the work, had he worked alone?

- Ans**
- 1. 110 days
 - 2. 118 days
 - 3. 98 days
 - 4. 120 days

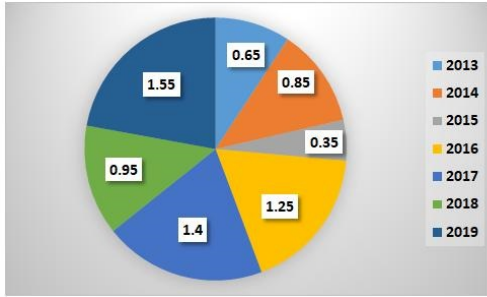
Question ID : 8161612687
Status : Not Answered
Chosen Option : --

Q.5 If $x^4 + \frac{1}{x^4} = \frac{257}{16}$ then find $\frac{8}{13} \left(x^3 + \frac{1}{x^3} \right)$, where $x > 0$.

- Ans**
- 1. 6
 - 2. 4
 - 3. 8
 - 4. 5

Question ID : 8161612702
Status : Answered
Chosen Option : 4

Q.6 The following pie chart shows the ratio of the amount of imports by a company to the amount of exports from that company from 2013 to 2019.



If the imports in 2016 were ₹250 million and the total exports in the years 2016 and 2017 together were ₹500 million, then the imports in 2017 were:

- Ans
- ✗ 1. ₹320 million
 - ✗ 2. ₹620 million
 - ✓ 3. ₹420 million
 - ✗ 4. ₹520 million

Question ID : 8161612710
 Status : Not Answered
 Chosen Option : --

Q.7 If $\sec A = \frac{\sqrt{11}}{3}$, then the value of $\frac{\operatorname{Cosec}^2 A + \tan^2 A}{\sin^2 A + \cot^2 A}$ is:

- Ans
- ✗ 1. $\frac{9}{4}$
 - ✓ 2. $\frac{11}{9}$
 - ✗ 3. $\frac{2}{11}$
 - ✗ 4. $\frac{4}{9}$

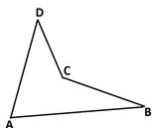
Question ID : 8161612705
 Status : Answered
 Chosen Option : 2

Q.8 If $a + b = 8$ and $a + a^2b + b + ab^2 = 128$ then the positive value of $a^3 + b^3$ is:

- Ans
- ✗ 1. 344
 - ✗ 2. 96
 - ✗ 3. 224
 - ✓ 4. 152

Question ID : 8161612700
 Status : Not Answered
 Chosen Option : --

Q.9 If in the following figure (not to scale), $\angle DAB + \angle CBA = 90^\circ$, $BC = AD$, $AB = 20$ cm, $CD = 10$ cm then the area of the quadrilateral ABCD is:



- Ans
- 1. 120 cm^2
 - 2. 75 cm^2
 - 3. 100 cm^2
 - 4. 150 cm^2

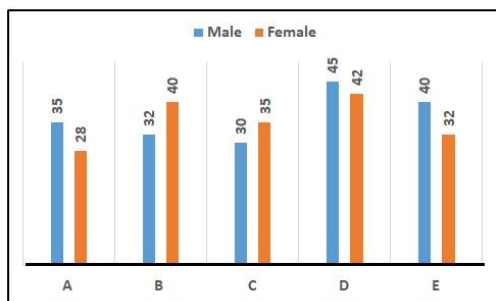
Question ID : **8161612699**
 Status : **Not Answered**
 Chosen Option : --

Q.10 Evaluate $45 - 5 \text{ of } (6.3 \div 9) + 7 \times 0.5$.

- Ans
- 1. 40
 - 2. 45
 - 3. 42
 - 4. 50

Question ID : **8161612704**
 Status : **Answered**
 Chosen Option : 2

Q.11 The following graph gives the details of the male and female population (in thousands) across five places A, B, C, D and E.



Based on the information, the total number of females in all five places is approximately what percentage of the total number of males in all five places?

- Ans
- 1. 95%
 - 2. 99%
 - 3. 97%
 - 4. 94%

Question ID : **8161612709**
 Status : **Answered**
 Chosen Option : 3

Q.12 The distance between the places H and O is D units. The average speed that gets a person from H to O in a stipulated time is S units. He takes 20 minutes more time than usual if he travels at 60 km/h, and reaches 44 minutes early if he travels at 75 km/h. The sum of the numerical values of D and S is:

- Ans
- 1. 376
 - 2. 358
 - 3. 344
 - 4. 384

Question ID : 8161612688

Status : Not Answered

Chosen Option : --

Q.13 If $A = \frac{(0.1)^3 + (0.2)^3 + (0.3)^3 + 3(0.005 + 0.016 + 0.027) + 0.036}{(0.1)^2 + (0.2)^2 + (0.3)^2 + 0.04 + 0.06 + 0.12}$, then the value of $60A$ is:

- Ans
- 1. 36
 - 2. 30
 - 3. 60
 - 4. 20

Question ID : 8161612701

Status : Answered

Chosen Option : 1

Q.14 If $\cos A, \sin A, \cot A$ are in geometric progression, then the value of $\tan^6 A - \tan^2 A$ is:

- Ans
- 1. 1
 - 2. $\frac{1}{2}$
 - 3. 3
 - 4. $\frac{1}{3}$

Question ID : 8161612706

Status : Answered

Chosen Option : 1

Q.15 An oil merchant wants to make a minimum profit of ₹2,100 by selling 50 litres of oil he purchased at ₹236 per litre. For this, he adds a few litres of duplicate oil whose cost price is ₹180 per litre and sells at ₹250 per litre. How many litres of duplicate oil is needed for this purpose?

- Ans
- 1. 16 litres
 - 2. 18 litres
 - 3. 20 litres
 - 4. 22 litres

Question ID : 8161612693

Status : Not Answered

Chosen Option : --

Q.16 A triangle has sides 25, 39, 34 units. If the area of a square exceeds the area of this triangle by 21 units, then the side of the square is:

- Ans
- 1. 22 units
 - 2. 18 units
 - 3. 25 units
 - 4. 21 units

Question ID : **8161612698**
 Status : **Answered**
 Chosen Option : **4**

Q.17 If $\frac{(1+\sin\theta-\cos\theta)}{(1+\sin\theta+\cos\theta)} + \frac{(1+\sin\theta+\cos\theta)}{(1+\sin\theta-\cos\theta)} = 4$, then which of the following values will be suitable for θ ?

- Ans
- 1. 45°
 - 2. 30°
 - 3. 90°
 - 4. 60°

Question ID : **8161612707**
 Status : **Answered**
 Chosen Option : **1**

Q.18 The numbers 24, 45, a, 35, 59, 83, 46, b, 29, 74 are serially numbered as they appear in the sequence. When each number is added to its serial number, then the average of the new numbers formed is 55. The average of the missing numbers (a and b) is:

- Ans
- 1. 62
 - 2. 38
 - 3. 50
 - 4. 58

Question ID : **8161612690**
 Status : **Not Answered**
 Chosen Option : **--**

Q.19 The ratio of a man's age to his father's age is 4 : 5, and the ratio of his age to his son's age is 6 : 1. Four years ago these ratios were 11 : 14 and 11 : 1, respectively. The ratio of the age of the grandfather to that of the grandson 12 years from now will be:

- Ans
- 1. 12 : 5
 - 2. 18 : 5
 - 3. 14 : 3
 - 4. 18 : 7

Question ID : **8161612694**
 Status : **Answered**
 Chosen Option : **2**

Q.20 A sphere is placed in a cube so that it touches all the faces of the cube. If 'a' is the ratio of the volume of the cube to the volume of the sphere, and 'b' is the ratio of the surface area of the sphere to the surface area of the cube, then the value of ab is:

Ans

1. $\frac{\pi^2}{36}$

2. 1

3. 4

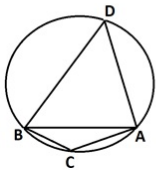
4. $\frac{36}{\pi^2}$

Question ID : 8161612689

Status : Answered

Chosen Option : 2

Q.21 If in the following figure (not to the scale), $\angle ACB = 135^\circ$ and the radius of the circle is $2\sqrt{2}$ cm, then the length of the chord AB is:



Ans

1. 4 cm

2. $3\sqrt{2}$ cm

3. 6 cm

4. $4\sqrt{2}$ cm

Question ID : 8161612697

Status : Not Answered

Chosen Option : --

Q.22 If each edge of a cube is increased by 10%, then the percentage increase in its surface area is:

Ans

1. 22%

2. 19%

3. 20%

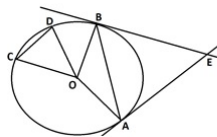
4. 21%

Question ID : 8161612692

Status : Answered

Chosen Option : 4

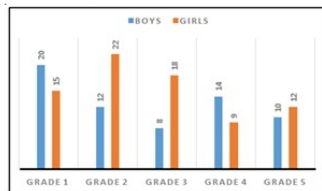
Q.23 In the following figure (not to scale), at the centre O, if the chord AB subtends double the angle that is subtended by chord CD and the angle $\angle AEB = 2\angle AOB$, then $\angle COD$ is equal to:



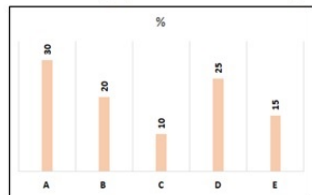
- Ans
- 1. 30°
 - 2. 45°
 - 3. 75°
 - 4. 60°

Question ID : 8161612696
 Status : Not Answered
 Chosen Option : --

Q.24 The first graph shows the number of students (boys and girls in thousands) in Grade 1 to Grade 5.



And the bar graph below shows the percentage share of five schools in the total students studying in that class.

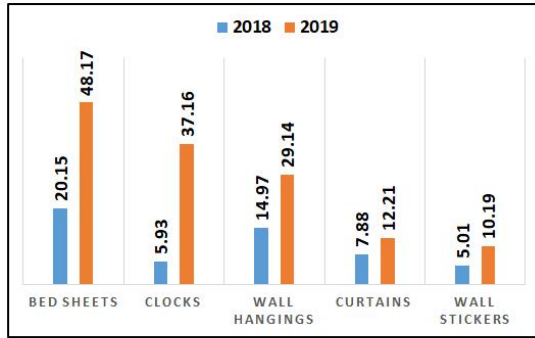


Based on the information, if the boys to girls ratio in school D is 3 : 1, then the number of boys studying in School D is:

- Ans
- 1. 25550
 - 2. 22450
 - 3. 26250
 - 4. 28750

Question ID : 8161612711
 Status : Not Answered
 Chosen Option : --

Q.25 A home decor company produces five different products - Bed sheets, Clocks, Wall hangings, Curtains and Wall stickers. The sales of these five products (in lakh number of packs) during 2018 and 2019 are shown in the following bar-graph.



Based on the given information, sales have increased by nearly 55% from 2018 to 2019 in the case of:

- Ans**
- 1. Wall hangings
 - 2. Wall stickers
 - 3. Bed sheets
 - 4. Curtains

Question ID : 8161612708

Status : Not Answered

Chosen Option : --