Section : **Quantitative Aptitude**

Q.1 If the number 34k56k is divisible by 6, then what will be the largest value of k?

Ans ✗ 1. 9

✔ 2. 6

✗ 3. 8

✗ 4. 4

Question ID : **6549789218**
Status : **Answered**
Chosen Option : **2**

Q.2 D, E and F are the feet of the perpendiculars from the vertices A, B and C, respectively, of a triangle ABC. If angle BED and angle BFE (in degrees) are 24 and 110, respectively, what is the measure (in degrees) of angle EBF?

Ans ✗ 1. 55

✗ 2. 67

✔ 3. 46

✗ 4. 86

Question ID : **6549788406**

Status : **Not Answered**

Chosen Option : **--**

Q.3 Two chords PQ and RS of a circle meet at A when produced. AT is a tangent to the circle meeting it at T. The ratio PA : SA is equal to which of the following?

Ans ✗ 1. RQ : QT

✗ 2. AQ : AT

✗ 3. AQ : QR

✔ 4. RA : AQ

Question ID : **6549788404**

Status : **Not Answered**

Chosen Option : **--**

Q.4 If a : b = 5 : 7, b : c = 8 : 15, then find the value of 8c : 5a.

Ans ✗ 1. 8 : 21

✗ 2. 176 : 65

✔ 3. 21 : 5

✗ 4. 24 : 5

Question ID : **6549789209**

Status : **Answered**

Chosen Option : **4**

Q.5 In a rectangular park having dimensions 60 m × 40 m, two circular flower beds with radius 7 m are developed. What is the area of the remaining portion of the park? $\left(Use\ \pi = \frac{22}{7}\right)$

Ans ✔ 1. $2092\ m^2$

✗ 2. $2246\ m^2$

✗ 3. $1196\ m^2$

✗ 4. $1749\ m^2$

Question ID : **6549788396**

Status : **Answered**

Chosen Option : **1**

Q.6 A soft drink company prepares drinks of three different flavours — A, B and C. The production of the three flavours over a period of five years from 2010 to 2014 has been expressed in the given bar graph. Study the graph and answer the question that follows.

Production of three different flavours A, B and C (in lakh bottles) by a company over five years.

The difference between the average production of flavour A in 2012, 2013 and 2014 and the average production of flavour C in 2012, 2013 and 2014 is:

Ans
✗ 1. 12 lakh bottles
✔ 2. 15 lakh bottles
✗ 3. 18 lakh bottles
✗ 4. 10 lakh bottles

Question ID : **6549787709**
Status : **Answered**
Chosen Option : **2**

Q.7 If $x - y = 4$ and $xy = 3$, then what is the value of $x^3 - y^3$?

Ans
✔ 1. 100
✗ 2. 88
✗ 3. 28
✗ 4. 64

Question ID : **6549788408**
Status : **Answered**
Chosen Option : **3**

Q.8 A reduction of 20% in the rate of sugar enables Sudhir to get 6 kg more sugar for ₹960. What is the reduced rate of sugar per kg?

Ans
✔ 1. ₹32
✗ 2. ₹36
✗ 3. ₹35
✗ 4. ₹40

Question ID : **6549789207**
Status : **Not Answered**
Chosen Option : **--**

Q.9 Joseph bought two woollen jackets for ₹2,100 and ₹3,150, respectively. By selling the first at a gain of k% and the second at a loss of k%, he found that the selling price of both is the same. What is the value of k?

Ans
✗ 1. 22.64
✗ 2. 15
✗ 3. 25
✔ 4. 20

Question ID : **6549788400**
Status : **Not Answered**
Chosen Option : **--**

Q.10 Geeta can assemble a toy in 10 minutes, whereas Sudha can assemble the same toy in 15 minutes. If they work together, how much time will they take to assemble 60 toys?

Ans
✗ 1. 7 hours 30 minutes
✗ 2. 7 hours
✗ 3. 5 hours
✔ 4. 6 hours

Question ID : **6549788394**
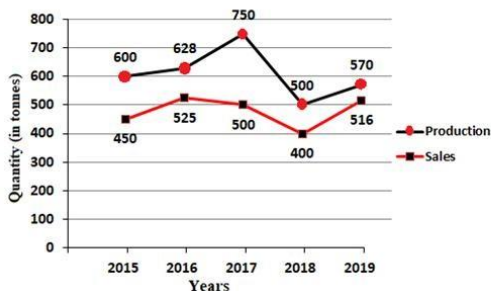Status : **Answered**
Chosen Option : **4**

Q.11 A pair of jeans marked at ₹960 is offered in a departmental store for ₹816. What is the percentage of discount given by the shopkeeper?

Ans
✔ 1. 15
✗ 2. 17
✗ 3. 17.64
✗ 4. 16

Question ID : **6549788398**
Status : **Answered**
Chosen Option : **1**

Q.12 The given line graph shows the production (in tonnes) and the sales (in tonnes) of a company.

How much more is the production in 2015 and 2017 taken together than the sales in 2016 and 2018 taken together (in tonnes)?


Ans
✗ 1. 328
✗ 2. 178
✗ 3. 434
✔ 4. 425

Question ID : **6549788415**
Status : **Answered**
Chosen Option : **4**

Q.13 Study the given bar graph and answer the question that follows.

A tea plantation company produces three varieties of tea—black tea, green tea and herbal tea. The production of three varieties (in million tonnes) over a period of six years from 2014 to 2019, has been shown in the bar graph here. The X-axis represents the years and the Y-axis displays the production of the three varieties in million tonnes.

Production of Three Different Varieties Black, Green and Herbal Tea by a Tea Plantation Company over the years (in million tonnes)
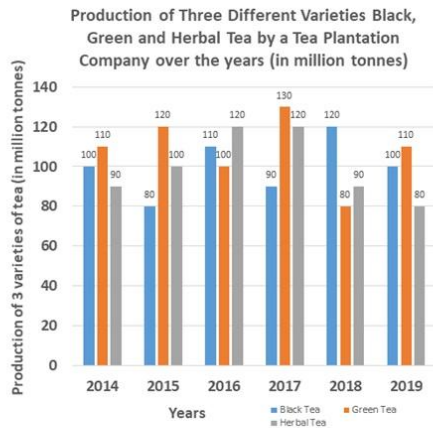
The total production of green tea in 2016 and 2018 is what per cent of the total production of herbal tea in 2015 and 2017?

Ans ✔ 1. 81.8

✘ 2. 83.4

✘ 3. 85.6

✘ 4. 79.7

Question ID : 6549789123
Status : **Not Answered**
Chosen Option : --

Q.14 Ravi can row a boat in still water at the speed of 14 km/h. If a river is flowing at the speed of 2 km/h and Ravi takes 3 hours to cover a certain distance upstream, then how much time will he take to cover the same distance downstream?

Ans ✘ 1. 2 h

✔ 2. 2 h 15 m

✘ 3. 2 h 20 m

✘ 4. 2 h 30 m

Question ID : 6549789203
Status : **Not Answered**
Chosen Option : --

Q.15 PA and PB are tangents drawn to a circle with centre O from an external point P. If A and B are points on the circle and $\angle OBA = 42°$, then $\angle APB$ is:

Ans ✘ 1. 78°

✘ 2. 76°

✘ 3. 86°

✔ 4. 84°

Question ID : 6549789211
Status : **Not Answered**
Chosen Option : --

Q.16 A sum of money lent at simple interest amounts to ₹9,920 after 2 years and to ₹12,800 after 5 years. Find the rate of interest per annum.

Ans ✔ 1. 12%

✘ 2. 6.57%

✘ 3. 18%

✘ 4. 9.68%

Question ID : 6549789210
Status : **Not Answered**
Chosen Option : **--**

Q.17 In ΔPQR, points T and S are on PQ and PR, respectively, such that TS is parallel to QR. If TQ = 7.2 cm, PS = 1.8 cm and SR = 5.4 cm, then find the length of PT.

Ans ✘ 1. 3.6 cm

✔ 2. 2.4 cm

✘ 3. 1.35 cm

✘ 4. 2 cm

Question ID : 6549789213
Status : **Answered**
Chosen Option : **2**

Q.18 The average weight of 3 persons A, B and C is 60 kg. When D joins the group, the average weight becomes 65 kg. When another person E whose weight is 3 kg less than that of D replaces A, the average weight of B, C, D and E becomes 67 kg. What is the weight of A?

Ans ✘ 1. 60 kg

✔ 2. 69 kg

✘ 3. 65 kg

✘ 4. 72 kg

Question ID : 6549789205
Status : **Not Answered**
Chosen Option : **--**

Q.19 If $\csc^2\theta(\cos\theta - 1)(1 + \cos\theta) = k$, then what is the value of k?

Ans ✘ 1. $\frac{1}{2}$

✔ 2. -1

✘ 3. 1

✘ 4. 0

Question ID : 6549788414
Status : **Answered**
Chosen Option : **4**

Q.20 Simplify the following expression.

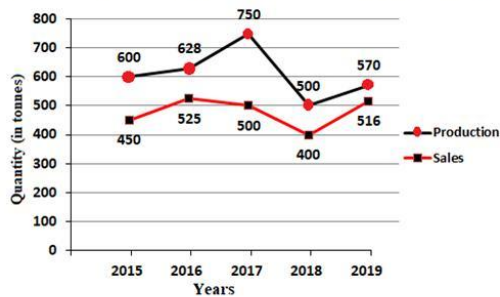$$(2a - b - 3c)(4a^2 + b^2 + 9c^2 + 2ab + 6ac - 3bc)$$

Ans ✗ 1. $8a^3 - b^3 - 27c^3 + 18abc$

✔ 2. $8a^3 - b^3 - 27c^3 - 18abc$

✗ 3. $-8a^3 + b^3 + 27c^3$

✗ 4. $8a^3 + b^3 + 27c^3$

> Question ID : **6549789215**
> Status : **Answered**
> Chosen Option : **1**

Q.21 The line graph shows the production (in tonnes) and the sales (in tonnes) of a company.

What is the percentage of maximum increase or reduction in the production of the company in comparison to the previous year?

Ans ✗ 1. 50% increase

✔ 2. 33.33% reduction

✗ 3. 29% increase

✗ 4. 46.67% reduction

> Question ID : **6549789226**
> Status : **Answered**
> Chosen Option : **3**

Q.22 Simplify the following expression.

$$\frac{3}{5} + 2\frac{2}{5} \div \left[\left(\frac{7}{8} - \frac{3}{4} \right) \times 4 - 6\frac{2}{3} \div \frac{4}{3} \right] \times \frac{1}{3}$$

Ans ✗ 1. $-\frac{13}{5}$

✗ 2. $\frac{17}{15}$

✗ 3. $-\frac{2}{9}$

✔ 4. $\frac{19}{45}$

> Question ID : **6549788411**
> Status : **Not Answered**
> Chosen Option : **--**

Q.23 Evaluate the following expression.

$$\frac{\tan^2 60° + \mathrm{cosec}\, 30°\, \sin 90° + 3\sec^2 30°}{4\sin^2 45° + \sec^2 60° - \cot^2 30° - 5\cos^2 90°}$$

Ans

✗ 1. $\frac{7}{3}$

✔ 2. 3

✗ 3. $\frac{19}{17}$

✗ 4. -12

Question ID : **6549789221**
Status : **Not Answered**
Chosen Option : **--**

Q.24 If $a + b - c = 0$, then what is the value of $\frac{(b-c)^2}{4bc}\,\frac{(c-a)^2}{4ca}\,\frac{(a+b)^2}{4ab}$?

Ans

✔ 1. $-\frac{3}{4}$

✗ 2. $\frac{3}{4}$

✗ 3. $\frac{1}{2}$

✗ 4. $-\frac{1}{2}$

Question ID : **6549788409**
Status : **Not Answered**
Chosen Option : **--**

Q.25 In a triangle ABC, right-angled at C, if $\sec A = \frac{13}{5}$, then find the value of $\frac{1 + \sin A}{\cos B}$.

Ans

✔ 1. $\frac{25}{12}$

✗ 2. $\frac{18}{5}$

✗ 3. $\frac{3}{2}$

✗ 4. 5

Question ID : **6549788412**
Status : **Not Answered**
Chosen Option : **--**