

Section : Part C Elementary Mathematics

Q.1 If the height of a right circular cone is 24 m and its slant height is 30 m, then what is the area of its curved surface?

(Use $\pi = \frac{22}{7}$)

- Ans**
- ✓ 1. 1697.143 m²
 - ✗ 2. 1377.423 m²
 - ✗ 3. 1778.654 m²
 - ✗ 4. 1267.435 m²

Question ID : 65497832220

Status : Answered

Chosen Option : 1

Q.2 By selling an article for ₹254.38, there is a gain of 10.6%. If it is sold for ₹224.25, then the loss/gain percentage will be:

- Ans**
- ✓ 1. loss, 2.5%
 - ✗ 2. gain, 2.5%
 - ✗ 3. gain, 5%
 - ✗ 4. loss, 5%

Question ID : 65497832222
 Status : Answered
 Chosen Option : 1

Q.3 The average of seven consecutive positive integers is 259. If the next five odd numbers are included, then what is the average of all the numbers (correct to two decimal places)?

- Ans**
- ✗ 1. 260.74
 - ✗ 2. 259.68
 - ✓ 3. 262.33
 - ✗ 4. 267.89

Question ID : 65497832206
 Status : Answered
 Chosen Option : 3

Q.4 If the number 6523678pq is divisible by 99, the missing digits p and q are:

- Ans**
- ✗ 1. p = 4, q = 4
 - ✗ 2. p = 6, q = 2
 - ✓ 3. p = 2, q = 6
 - ✗ 4. p = 3, q = 5

Question ID : 65497832205
 Status : Answered
 Chosen Option : 2

Q.5 What is the difference between the compound interest on ₹3,000 for 1 year at 5% per annum compounded yearly and that compounded half-yearly?

- Ans**
- ✗ 1. ₹ $1\frac{22}{25}$
 - ✓ 2. ₹ $1\frac{7}{8}$
 - ✗ 3. ₹ $1\frac{13}{15}$
 - ✗ 4. ₹ $1\frac{6}{7}$

Question ID : 65497832219
 Status : Answered
 Chosen Option : 2

Q.6 The value of $3 \times 4 \div 3$ of $24 - 3 \div 2 \times (3 - 4) \times 2 + 6 \div 4$ of 3 is:

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

Question ID : 65497832221
Status : Answered
Chosen Option : 4

Q.7 The ratio of the number of men and women in a company is 5 : 4. If the number of men and women increase by 16% and 15%, respectively, then what will be the new ratio of men and women?

- Ans
- 1. 29 : 33
 - 2. 29 : 23
 - 3. 33 : 29
 - 4. 23 : 29

Question ID : 65497832218
Status : Answered
Chosen Option : 2

Q.8 A, B and C can complete a work in 60, 30 and 20 days, respectively. In how many days can A complete the work if he is assisted by B and C together on every fifth day?

- Ans
- 1. 25
 - 2. 30
 - 3. 15
 - 4. 35

Question ID : 65497832215
Status : Answered
Chosen Option : 2

Q.9 Two numbers X and Y are such that the sum of 3% of X and 2% of Y is two-third of the sum of 2% of X and 6% of Y. The ratio of three times of X to two times of Y is:

- Ans
- 1. 4 : 3
 - 2. 5 : 9
 - 3. 3 : 4
 - 4. 9 : 5

Question ID : 65497832204
Status : Answered
Chosen Option : 4

Q.10 If 80% of $\frac{3}{4}$ of a number is 63, then the number is:

- Ans
- 1. 105
 - 2. 95
 - 3. 115
 - 4. 110

Question ID : 65497832214
Status : Answered
Chosen Option : 1

Q.11 If a 10-digit number $643x1145y2$ is divisible by 88, then the value of $(2x - 3y)$ for the largest value of y is:

- Ans
- 1. 15
 - 2. 27
 - 3. -15
 - 4. -27

Question ID : 65497832203
Status : Answered
Chosen Option : 4

Q.12 Akhil drives a car from his home to office at an average speed of 50 km/h and reaches office 10 minutes early. But one day due to some problem with the car, he could drive at an average speed of 30 km/h only and reached office 10 minutes late. How far is his office from home?

- Ans
- 1. 37.5 km
 - 2. 30 km
 - 3. 25 km
 - 4. 12.5 km

Question ID : 65497832202
Status : Answered
Chosen Option : 3

Q.13 When x is subtracted from each of 43, 38, 11 and 10, then the numbers so obtained in this order are in proportion. What is the mean proportional between $(11x + 3)$ and $(9x - 2)$?

- Ans
- 1. 35
 - 2. 25
 - 3. 30
 - 4. 20

Question ID : 65497832207
Status : Answered
Chosen Option : 3

Q.14 Rameshwar deposited a part of ₹3,28,000 in a bank in the name of his daughter aged 18 years, and the balance in the name of his son aged 19 years in such a way that they both receive equal amounts when they become 21 years of age. If the bank gives compound interest at 5% per annum, then how much did he invest in the name of his daughter?

- Ans**
- 1. ₹1,57,000
 - 2. ₹1,58,000
 - 3. ₹1,60,000
 - 4. ₹1,56,000

Question ID : 65497832200
 Status : Answered
 Chosen Option : 2

Q.15 During a flight of 900 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 300 km/h and the time of flight increased by 30 min. The original duration of the flight was:

- Ans**
- 1. 3 h
 - 2. 3/2 h
 - 3. 2 h
 - 4. 1 h

Question ID : 65497832216
 Status : Answered
 Chosen Option : 4

Q.16 What number must be added to each of the numbers 15, 9 and 5 so that the resulting numbers may be in a continued proportion?

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

Question ID : 65497832210
 Status : Answered
 Chosen Option : 3

Q.17 By selling 40 dozen bananas for ₹1,440, a man gains 20%. In order to gain 30%, for how much should he sell 20 dozen bananas?

- Ans**
- 1. ₹780
 - 2. ₹1,560
 - 3. ₹936
 - 4. ₹720

Question ID : 65497832199
 Status : Answered
 Chosen Option : 1

Q.18 The amount obtained by investing a certain sum at $r\%$ p.a. for 3 years at simple interest is equal to the simple interest on the same sum at the same rate for 19 years. What is the value of r ?

- Ans 1. 6.25
 2. 5.75
 3. 4
 4. 8

Question ID : 65497832208
Status : Answered
Chosen Option : 1

Q.19 If the selling price of an article is ₹900 and the discount is 40%, then find its marked price (in ₹).

- Ans 1. 1,200
 2. 1,500
 3. 1,600
 4. 800

Question ID : 65497832213
Status : Answered
Chosen Option : 2

Q.20 The area of the floor of a cubical room is 192 m^2 . The length of the longest rod that can be kept in that room is:

- Ans 1. 18 m
 2. 22 m
 3. 24 m
 4. 26 m

Question ID : 65497832211
Status : Answered
Chosen Option : 3

Q.21 The average weight of 6 persons increases by 1.5 kg when a new person comes in place of one of them who was weighing 65 kg. What is the weight of the new person?

- Ans 1. 66.5 kg
 2. 74 kg
 3. 76 kg
 4. 75.5 kg

Question ID : 65497832212
Status : Answered
Chosen Option : 2

Q.22 Pipes A and B can empty a full tank in 16 hours and 24 hours, respectively. Pipe C alone can fill the empty tank in 4 hours. If A, B and C are opened together, the tank will be 35% full after:

- Ans
- 1. $3\frac{1}{5}$ hours
 - 2. $3\frac{2}{5}$ hours
 - 3. $2\frac{2}{5}$ hours
 - 4. $2\frac{1}{5}$ hours

Question ID : 65497832223
 Status : Answered
 Chosen Option : 3

Q.23 Simplify the following expression.

$$\frac{312 \div 26 + 60 \div (42 - 55 \text{ of } 4 \div 10) \times 2}{9 + (12 - 2 \text{ of } 4)}$$

- Ans
- 1. $\frac{6}{169}$
 - 2. $1\frac{1}{26}$
 - 3. $-\frac{144}{169}$
 - 4. $1\frac{5}{13}$

Question ID : 65497832201
 Status : Answered
 Chosen Option : 4

Q.24 A trader purchased 360 packets of pencils at the rate of ₹15 per packet. He sold 60% of the packets at the rate of ₹18 per packet and the remaining packets at the rate of ₹20 per packet. What is his gain per cent (up to one decimal place) in this transaction?

- Ans
- 1. 25.5
 - 2. 25.3
 - 3. 25.2
 - 4. 25.4

Question ID : 65497832217
 Status : Answered
 Chosen Option : 2

Q.25 Two successive discounts, with the first being 10%, were given on an article having the marked price of ₹7,500. Finally, it was sold for ₹5,805. What per cent was the second discount?

- Ans
- 1. 12%
 - 2. 15%
 - 3. 16%
 - 4. 14%

Question ID : 65497832209
 Status : Answered
 Chosen Option : 4