Mock Test 5

Quantitative Aptitude Set-5

Question 1/22

A student took five papers in an examination, where the maximum marks were the same for each paper. His marks in these papers were in the ratio 5 : 6 : 7 : 8 : 9. In all the papers put together, he got 70% of the maximum marks.
The number of papers in which he got more than 60% is:

Question 2/22

There are two analog clocks that show the exact time. Now both the clocks simultaneously develop a snag, as a result of which the first clock starts losing 1½ minutes per day, while the second clock starts gaining 2½ minutes per day.
After how many days will the two clocks simultaneously show the correct time?

Options:
(a) 2160 days
(b) 1440 days
(c) 1800 days
(d) 1080 days

Question 3/22

If the simple interest on a certain sum for 8 months at 4% p.a. is ₹129 less than the simple interest on the same sum for 15 months at 5% p.a.,
The sum (in ₹) is:

Question 4/22

If x and y are integers, and $2^{x+3y} \times 3^{x+y} = 3456$, then $3x + y =$

Question 5/22

Select the correct alternative from the given choices.

Options:
(a) 0
(b) 1
(c) -1
(d) 2

Question 6/22

If the sum of the first four terms of an AP is one-fifth the sum of the first nine terms of the AP,
What is the ratio of the first term of the AP to its common difference?

Options:
(a) 20 : 11
(b) 25 : 11
(c) 6 : 11
(d) 50 : 11

Mock Test 5

Question 7/22

The magnitude of profit is one-third of the discount offered. If the discount is 37.5%,
Find the profit percentage.

Options:

(a) 20%

(b) 12.5%

(c) 40%

(d) 25%

Question 8/22

What is the angle (in degrees) between the lines $3x+2y=4$ and $2x-3y=9$?

Question 9/22

P starts from city A towards city B. After some time, Q and R start from cities A and B respectively at 5 kmph and 12 kmph, towards B and A respectively. The distance between A and B is 100 km. If P and Q meet at 20 km from A, and P and R meet at 28 km from A,
What is the speed of P (in kmph)?

Question 10/22

Two apples, three mangoes and six bananas all cost the same. If the price of an apple increases by 25% and that of a mango by 40%,
Find the approximate percentage increase in total cost of four apples, five mangoes and six bananas.

Options:

(a) 25%

(b) 28%

(c) 30%

(d) 34%

Question 11/22

If $\frac{1}{4}\log_2 M + 4\log_2 N = 4^{\left(1+\frac{3}{2}\log_{0.008} 5\right)}$, which of the following is true?

FIND M AND N?

Select the correct alternative from the given choices.

Options:

(a) 195

(b) 176

(c) 234

(d) 256

Question 12/22

N is an eight-digit number and S(N) denotes the sum of its digits. If $N+S(N)=100000000$

100000000N+S(N)=100000000,
Find the tens digit of N.

Question 13/22

Jadeja was playing with a sheet of paper which was in the shape of a rectangle, of length 16 cm and breadth 12 cm. He placed the rectangular sheet of paper flat, on the surface of a table, and then folded the rectangle along its diagonal.
Find the area (in sq. cm) of the region occupied by the newly formed figure.

Question 14/22

If it takes 60 seconds to fill $\frac{2}{3}$rd of a tank, of dimensions 6 m × 10 m × 8 m, how many seconds would it take to fill the remaining part of the tank at the same rate?

Select the correct alternative from the given choices.

Options:
(a) 20
(b) 40
(c) 30
(d) 25

Question 15/22

A square room has a hook on the ceiling exactly at the centre P. If AB is one of the sides of the floor, where ∠APB = 60° and AB = 6 m,
Then what is the height (in m) of the room?
(Enter your answer as a decimal value, rounded off to two decimal places.)

Question 16/22

There are 2272 students in a school. All the students stand in a row, from left to right, holding a number such that the number with any student (except those at the ends) equals the sum of the numbers with the student on his immediate left and the student on his immediate right. If the numbers with the 1136th and 1137th students from the left end are – 57 and 16 respectively,
Then find the sum of the numbers with all the students.

Options:
(a) 46
(b) –89
(c) 130
(d) –41

Question 17/22

If p and q are non-negative integers and 6^p and 12^q are not multiples of 24, which of the following is not a possible value of $(p + q)$?

Select the correct alternative from the given choices.

Options:
(a) 2

(b) 4

(c) 1

(d) 3

Question 18/22

Find the remainder when the product
567890×567892×567894×567896×567898567890 \times 567892 \times 567894 \times 567896 \times
567898567890×567892×567894×567896×567898
is divided by 11.

Options:

(a) 1

(b) 10

(c) 6

(d) 5

Question 19/22

If the last four digits of a number xxx, when expressed in the binary system, are 1000,
Then the last three digits of the product 125x125x125x are:

Options:

(a) 100

(b) 000

(c) 125

(d) 025

Question 20/22

The harmonic mean of 4 and kkk is 6.
Find the value of kkk.

Question 21/22

Rahul met three of his friends Bhavish, Goyal, and Yogendra, on a Sunday evening.

- First, he met Bhavish, to whom he gave one-fifth of the chocolates he had and an additional 12 chocolates.

- He then met Goyal, to whom he gave one-third of the chocolates he then had and an additional six chocolates.

- He then met Yogendra and gave him half of the chocolates he then had and an additional two chocolates.
  What is the difference between the number of chocolates he gave to Goyal and Yogendra?

Options:

(a) 5

(b) 6

(c) 7

(d) 8

Question 22/22

There are two vessels, P and Q, containing only milk and only water respectively. The volume of milk in P is the same as

the volume of water in Q. Now one-third the contents of P are poured into Q, after which one-fourth the contents of Q are poured back into P.

If this process is repeated 15 more times,

What is the approximate final concentration of milk in vessel P?

Options:

(a) 33.33%

(b) 50%

(c) 66.66%

(d) 60%

Mock Test 5

Answer Key

1. 3

2. (b) 1440 days

3. 3600

4. 5

5. (d) 2

6. (c) 6 : 11

7. (d) 25%

8. 90

9. 4

10. (a) 25%

11. (d) 256

12. 2

13. 117

14. (c) 30

15. 4.24

16. (d) -41

17. (b) 4

18. (c) 6

19. (b) 000

20. 12

21. (c) 7

22. (b) 50%