Q 41.(x, y) is a pair of positive integers such that HCF (x, y) + LCM (x, y) = 187 and x > y.
Which one of the following is correct in respect of the Question and the Statements given below?
Statement 1: There are three possible values of HCF (x, y).
Statement 2: The minimum value of (x+y) is 37.
Statement 3: There are 7 pairs of (x, y) that satisfy the given conditions.
1. Statements 1 and 3 are correct but Statement 2 is incorrect.
2 Statement 1 is incorrect but Statements 2 and 3 are correct.
3. Only Statements 1 and 2 are correct.
4. All three statements are correct.

Q 42. The prices of a cream and a shampoo are in the ratio 19:11. The price of the cream is ₹160 more than the price of the shampoo, What is the price of a cream?
1. ₹340
2. ₹360
3. ₹400
4. ₹380

Q 43. A sum becomes ₹8640 after two years and ₹12,441.6 after four years at the same compound interest. Find the sum

1. ₹5000
2. ₹6000
3. ₹5800
4. ₹6300

Q 44. Find the positive square root of $\sqrt{92-24\sqrt{6-4\sqrt{2}}}$

1. 6 + 2 sqrt(2)
2. 8 - 2 sqrt(2)
3. 8 - 4 sqrt(2)
4. 6 - 2 sqrt(2)

Q 45. 35 men and 49 women, working together, can do a job in 84 days while 48 men and 84 women, working together, can do the same job in 56 days. In how many days can the same job be done by 30 men and 21 women, working together?

1. 120 6/ 13
2. 120 8 /13
3. 120 7/ 13
4. 120 9 /13

Q 46. A salt and water mixture, of which 12.5% in salt, costs ₹22 per litre. Another salt and water mixture, of which 27.5% is salt, costs 38.50 per litre. How many litres of a salt and water mixture, of which 30% is salt, can be bought for ₹165?

1.5
2 4.5
3. 4
4 3.5

Q 47. If Naman had purchased 25 articles for ₹22 and sold all the articles at the rate of 22 for ₹25, then find his approximate profit percentage.

1. 30.2%
2. 21.5%
3. 20.5%
4. 29.1%

Q 48. Excluding stoppages, the speed of a bus is 152 km/hr. and including stoppages, it is 114 km/hr. For how many minutes does the bus stop per hour?

1.15 minutes
2. 9 minutes
3 14 minutes
4. 10 minutes

Q 49. A shopkeeper buys three varieties of sugar at Rs 99, Rs 120 and Rs 144 per kg respectively and mixes them in the ratio 9:2:1. In order to earn a y% profit after giving a discount equal to a sixth of the marked price, the marked price per kg of the blended sugar is fixed at Rs 178.50. What is the value of y?
1.35
2. 40
3 45
4. 36

Q 50. Ravi and Rajiv decided to run a 960 m long race on a track as long as the length of the race. Which of the statement(s) below is (are) sufficient to conclude that Rajiv ran at a speed of 10 m/s?
Statement 1: Ravi is allowed to start 5 seconds before Rajiv started running.
Statement 2: Ravi ran at 8 m per second.
Statement 3: Rajiv caught up with Ravi with 3/8 of the track length still to be covered.
1. Even all the three statements taken together is not sufficient.
2. All the three statements taken together is sufficient.
3. Statements 2 and 3 taken together are sufficient.
4. Statements 1 and 3 taken together are sufficient.

Q 51. The greatest number of wagons that can be attached to a locomotive engine if the speed is not to fall below 14 km. per hour is given as 144
Which one of the following is correct in respect of the Question and the Statements given below?
Statement 1: The locomotive engine without any wagon can go at a rate of 50 km per hour
Statement 2: The speed of the locomotive diminishes by a quantity which varies as the square root of the number of wagons attached.
Statement 3: With 16 wagons its speed is 38 km, per hour.
1. All the three statements are sufficient
2. Even all the three statements taken together is still not sufficient.
3. Statement 2 and Statement 3 taken together are sufficient.
4. Statement 1 and Statement 3 taken together are sufficient

Q 52. The product of two co-prime numbers is 1073. Find their L.C.M.
1. 1
2 1073
3. 29
4. 37

Q 53. Jay lent some amount of money at 14% simple interest and an equal amount of money at 20% simple interest each for two years. If his total interest was, ₹9520, then find the amount of money that was lent in each case.
1. ₹15,000
2 ₹13,000
3. ₹16,000
4. ₹14,000

Q 54. A number increased by 57% gives 942. Find the number.
1. 600
2.700
3. 800
4.500

Q 55. Prakash and Inaya started a business investing ₹77,000 and ₹84,000 respectively. In what ratio the profit earned after 2 years be divided between Prakash and Inaya respectively?
1. 12:11
2. 12:7
3.11:7
4. 11:12

Q 56. On a particular day each of Danish, Ethan and Farhan sold three types of pens from their respective shops. Danish and Ethan sold an identical number of pens of Type A while Farhan sold twice as many pens of Type A as Danish and Ethan together sold. The ratio of the numbers of pens of Type B sold by Danish, Ethan and Farhan was 3:4:1 respectively, and Ethan and Farhan sold an identical number of pens of Type C each, while Danish sold thrice as many pens of Type C as each of Ethan and Farhan sold. The three sellers sold each of the types of pens at different prices per unit.

Assertion (A): It is possible that Danish sold each pen of Type A at a loss of Rs 2, each pen of Type B at a profit of Rs 4, and each pen of Type C at a loss of Rs 5 and made an overall profit of Rs 144; Ethan sold each pen of Type A at a profit of Rs 5, each pen of Type B at a loss of Rs 1, and each pen of Type C at a profit of Rs 7 and made an overall profit of Rs 13; and Farhan sold each pen of Type A at a profit of Re 3. each pen of Type B at a profit of Rs 4, and each pen of Type C at a loss of Rs 6 and made an overall profit of Rs 240.

Reason (R): Framing and solving the three possible linear equations we will find that we get a unique solution. .

1. Both Assertion (A) and Reason (R) are true but Reason (R) is not a correct explanation of Assertion (A).
2. Assertion (A) is false and Reason (R) is true.
3. Both Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation of Assertion (A).
4. Assertion (A) is true and Reason (R) is false.

Q 57. In a 60-liter mixture of milk and water, the water content is 40%. How many litres of water should be added to increase the water content to 60%?

1. 25 litres
2. 30 litres
3. 15 litres
4. 20 litres

Q 59. The sum of the squares of two numbers is 545 and the square of their difference is 1. Find the product of the two numbers.

1. 286
2. 282
3. 256
4. 272

Q 60. A, B and Center a partnership with initial investments in the ratio:11/5, 7/2, 15/8 After 4 months A raises her share of investment by 62.5%. If the total profit after 12 months since the beginning of the partnership is Rs. 138584, then how much (in Rs.) does A get as her share of profit?

1. 50874
2. 50864
3. 50844
4. 50884

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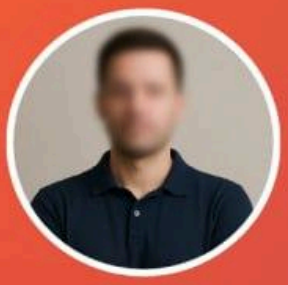

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