Question	The HCF of two numbers is 8. Which of the following can never be their LCM?	
Type	multiple_choice	
Option	56	incorrect
Option	24	incorrect
Option	40	incorrect
Option	60	correct
Solution	L.C.M. is always completely divisible by the H.C.F. so 60 cannot be the L.C.M. of the two numbers	
Marks	1	0

Question	The product of two numbers is 1280 and their H.C.F. is 8. What will be the L.C.M. of the two numbers?	
Type	multiple_choice	
Option	140	incorrect
Option	160	correct
Option	120	incorrect
Option	170	incorrect
Solution	L.C.M of the two numbers = Product/HCF = 1280/8= 160	
Marks	1	0

Question	The L.C.M of two numbers is 120 and their H.C.F. is 10. Which of the following can be the sum of those two numbers?	
Type	multiple_choice	
Option	65	incorrect
Option	50	incorrect
Option	120	incorrect
Option	70	correct
Solution	Let the numbers be 10p and 10q , where p and q are prime to each other. $\therefore$ LCM = 10pq $\Rightarrow$ 10pq = 120 $\Rightarrow$ pq = 12 Possible pairs = (3 , 4) or (1 , 12) Numbers are : 10p = 10 × 3 = 30 and 10q = 10 × 4 = 40 or 10p = 10 × 1 = 10 and 10q = 10 × 12 = 120 $\therefore$ Sum of the numbers = 30 + 40 = 70	
Marks	1	0

Question	The L.C.M. of two numbers is 45 times their H.C.F. One number is 125 and the sum of their H.C.F. and L.C.M is 1150. Find the other number.

Type	multiple_choice	
Option	225	correct
Option	245	incorrect
Option	250	incorrect
Option	260	incorrect
Solution	Let HCF be x so LCM will be 45x Given x + 45x =1150 x = 25 So HCF =25 and LCM will be 25x45=1125 We know that HCFxLCM = Product of two numbers 25 * 1125 = 125* 2ndNumber Second number = 225 Ans	
Marks	1	0

Question	The HCF and LCM of two numbers are 11 and 385 respectively. If one number lies between 75 and 125.The numbers is	
Type	multiple_choice	
Option	78	inorrect
Option	75	incorrect
Option	77	correct
Option	70	incorrect
Solution	HCF x LCM= Product of two numbers 11 x 385 = Product of two numbers 11 x (5x7x11) = Product of two numbers So, if one number say A and another is B. 75 <A<125 (11x7) x (5x11) = Product of two numbers Or (11x7) x (5x11) = A x B Then, only product of 7 and 11 will give us 77. Therefore, one number that lies within the given range is 77. So, ans is (77,55)	
Marks	1	0

Question	If the ratio of two numbers is 2:3 and their LCM is 54, then the sum of th e two numbers is	
Type	multiple_choice	
Option	60	incorrect
Option	30	incorrect
Option	40	incorrect
Option	45	correct
Solution	Let the two number be 2x and 3x	

	Their Lcm will be 6x A/Q 6x=54 x=9 Two numbers will be 2x9 =18 3x9=27 Sum of two numbers =18 +27 =45	
Marks	1	0

Question	The sum of L.C.M. and H.C.F. of two numbers is 1260. If their L.C.M. is 900 more than their H.C.F., find the product of two numbers.	
Type	multiple_choice	
Option	194400	correct
Option	194000	incorrect
Option	190000	incorrect
Option	180000	incorrect
Solution	Let the HCF be x LCM = HCF + 900 LCM = x+900 --(1) And LCM + HCF = 1260 LCM + x = 1260--(2) From (1) and (2) (x+900)+x=1260 x = 180 HCF = 180 And, from (1), LCM = HCF + 900 LCM = 180+900 LCM = 1080 Product of numbers = HCF×LCM=180×1080 Product =194400	
Marks	1	0

Question	If the ratio of two numbers is 2:3 and their LCM is 54, then the sum of th e two numbers is
Type	multiple_choice

Option	3	incorrect
Option	1	incorrect
Option	2	correct
Option	4	incorrect
Solution	The HCF (Highest Common Factor) of two consecutive even numbers wil l always be 2. This is because the only common factor between any two consecutive even numbers is 2 itself. For example, if you take two consecutive even numbers such as 4 and 6, their HCF is 2. Similarly, for 12 and 14, or 100 and 102, the HCF will always be 2 becaus e it's the only factor they have in common.	
Marks	1	0

Question	The sum of two numbers is 36 and their HCF is 4. How many pairs of suc h numbers are possible?	
Type	multiple_choice	
Option	3	correct
Option	4	incorrect
Option	2	incorrect
Option	1	incorrect
Solution	Let, the numbers are 4x and 4y 4x + 4y = 36 x+y=9 Possible (x,y) are (1, 8), (2,7), (4,5) ———>(NOTE only take co-prime number as x,y are co-prime) Therefore, pair of number (ax, 4y) will be (4, 32), (8, 28), (16, 20)	
Marks	1	0

Question	The HCF of two numbers, each having three digits is 17 and their LCM is 714. The sum of the numbers will be:	
Type	multiple_choice	
Option	230	incorrect
Option	225	incorrect
Option	220	incorrect
Option	221	correct
Solution	Let the numbers be 17x and 17y where x and y are co-prime. LCM = 17xy Now, 17xy = 714 Or, xy = 42 = 6 × 7 →x = 6 and y = 7	

	Or, x = 7 and y = 6 1st number = 17 × 6 = 102 2nd number = 17 × 7 = 119 Sum = 102 + 119 = 221	
Marks	1	0

Question	The HCF and product of two numbers are 15 and 6300 respectively. The number of positive pairs of the numbers is	
Type	multiple_choice	
Option	2	correct
Option	1	incorrect
Option	3	incorrect
Option	4	incorrect
Solution	Here , HCF = 15 Let the number be 15p and 15q, where p and q are co – prime. With the help of the given formula , HCF × LCM = Product of two numbers ∴ 15p × 15q = 6300 ⇒ pq =6300/15*15 = 28 So, two pairs are (7 , 4) and (14 , 2) .	
Marks	1	0

Question	The maximum number of students among whom 1001 pens and 910 pencils can be distributed in such a way that each student gets same nu mber of pens and same number of pencils, is	
Type	multiple_choice	
Option	85	incorrect
Option	90	incorrect
Option	80	incorrect
Option	91	correct
Solution	Since we are talking about the “maximum” number of students, we need to find the HCF of the given numbers. 1001=7×11×13 910=2×5×7×13 Thus, their HCF is 7×13 =91. Hence, the required number of students is 91.	
Marks	1	0

Question	From a point on a circular track 5 km long A, B and C started running in t he same direction at the same time with speeds of 5/2 km per hour, 3 k m per hour and 2km per hour respectively. Then on the starting point all three will meet again after

Type	multiple_choice	
Option	10 hours	correct
Option	4 hours	incorrect
Option	6 hours	incorrect
Option	3 hours	incorrect
Solution	Distance = 5 km Speed of A = 2(1/2)km/hr Time taken by A = 5hours Speed of B = 3 km/hr Time taken by B = 5/3hours Speed of C = 2 km/hr Time taken by C = 5/2hours A/Q we have to find LCM LCM=>LCM of numerator/HCF of denominator of (2,5/3,5/2) LCM = 10/1=10 hours They will meet again after 10 hours	
Marks	1	0

Question	What is the least number of square tiles required to pave the floor of a room 15m 17 cm long and 9 m 2 cm broad?	
Type	multiple_choice	
Option	780	incorrect
Option	820	incorrect
Option	800	incorrect
Option	814	correct
Solution	Length of the room = 15 m 17 cm = 15 × 100 + 17 = 1517 cm. Breadth of the room = 9 m 2 cm = 902 cm. The HCF of the 1517 and 902 will be size of square tiles. HCF 1517 and 902 = 41 cm. Area of the room = length × breadth = 1517 × 902 cm^2 Area of tiles = 41 × 41 cm^2 So, number of tiles required	

	= 1517×902/41×41 = 814 tiles Ans	
Marks	1	0

Question	The greatest number of four digits which when divided by 12,16 and 24 leave remainders 2,6 and 14 respectively is	
Type	multiple_choice	
Option	9974	correct
Option	9970	incorrect
Option	9980	incorrect
Option	9000	incorrect
Solution	12 - 2 = 10 16 - 6 = 10 24 - 14 = 10 LCM of (12, 16, 24) = 6 × 2 × 4 × 1 = 48 Greatest number of four digits = 9999 ∴ When it is divided by 48 we get remainder = 15 ⇒ The greatest number of 4 digits which completely divides the given number is = 9999 - 15 = 9984 ∴ Number is = 9984 - 10 = 9974	
Marks	1	0

Question	What is the least number which when divided by the numbers 3,5,6,8,10 and 12 leaves in each case a remainder 2 but when divided by 13 leaves no remainder?	
Type	multiple_choice	
Option	1562	incorrect
Option	1586	incorrect
Option	312	incorrect
Option	962	correct
Solution	LCM of 3,5,6,8,10 and 12 is 120. If the remainder in each case is 2 and the number is divisible by 13, then The number is (120x + 2) divisible by 13, so (120x +2)/13 9x + (3x+2)/13 (3x + 2) is divisible by 13 if we put x=1, 2, 3, 4, ... Put x = 8, then => (3x8+2) = 26 As we know, 26 is divisible by 13 so put x = 8 120x + 2 = 120x8+2 = 962 ANS	
Marks	1	0

Question	Find the smallest number divisible by 2,3,5,6,99 and 18 which is perfect square?

Type	multiple_choice	
Option	900	correct
Option	144	incorrect
Option	400	incorrect
Option	3600	incorrect
Solution	LCM of (2,3,5,6,9,18) = 2*3*5*3 To be in perfect square the number must be in even power so we need to multiply our lcm by 2*5 So, number is = 2*2*3*3*5*5 = 900 ans	
Marks	1	0

Question	What is the minimum number which should be added to 478 so that the resulting number is exactly divisible by 5,6 ans 12.	
Type	multiple_choice	
Option	2	correct
Option	3	incorrect
Option	6	incorrect
Option	5	incorrect
Solution	LCM of (5,6,12) = 5*6*2 = 60k form Putting k =1 ,2,3,4… to get near by 478 So k = 8 Number = 60*8 = 480 So, we need to add 2 to get 478 dividable by 5,6,12. Ans	
Marks	1	0

Question	What is largest 6 digit number which when divided by each of 16,24,72 and 28 leaves a remainder of 15?	
Type	multiple_choice	
Option	999981	incorrect
Option	999951	correct
Option	999963	incorrect
Option	999915	incorrect
Solution	Check with options 72 = 9*8 so that option completely divisible by 9 then it cant be ans Divisibility rule of 9 is sum of all digits divisible by 9 Option 1 , 3 cant be ans For divisibility of 16 last 4 digit must be divisible by 16 and get 15 as reminder as per question So, option 2 correct fit Ans = 999951	
Marks	1	0

Question	If 3A = 4B =5C, then A:B:C is equal to:

Type	multiple_choice	
Option	20:17:18	incorrect
Option	20:15:12	correct
Option	16:15:12	incorrect
Option	20:12:15	incorrect
Solution	Given 3A = 4B =5C Let 3A=4B=5C=K A=K/3, B=K/4, C=K/5 LCM(3,4,5)=60 A=60K/3, B= 60K/4, C= 60K/5 A:B:C= 20:15:12 ANS	
Marks	1	0

Question	Which is the smallest multiple of 7, which when divided by 8, 9, 12 and 15 leaves 5 in each case	
Type	multiple_choice	
Option	365	incorrect
Option	1085	correct
Option	2525	incorrect
Option	725	incorrect
Solution	Check by options only 1085 is divisible by 7 so ans is 1085 Or by basics LCM of 8, 9, 12, and 15 = 360 Let, the number is (360k + 5), which is multiple of 7 Put k=1 = (360 x 1+ 5) =365 = 365/7 ===> Remainder = 1 Put k=2 = (360 x2 +5)=725 = 7257 ====> Remainder = 4 Put k=3 = (360 x 3 +5) =1085 = 1085/7 ===> Remainder = 0 ans	
Marks	1	0

Question	Suppose the smallest number is divisible by 16, 24, 30, 36 and 45 and x is also a perfect square. What is the remainder when x is divided by 123 ?	
Type	multiple_choice	
Option	37	incorrect

Option	33	correct
Option	75	incorrect
Option	25	incorrect
Solution	LCM of 16,24,30,36,45 is = 2x2x2x2x3x3x5=720 As we know, Number is a perfect square, then each power is even So LCM=2x2x2x2x3x3x5x5 = 3600 When 3600 is divided by 123, the remainder is 33	
Marks	1	0

Question	Let x be the largest number which divides 955, 1027, 1075, then the remainder remains the same in each case. Which of the following is not a factor of x?	
Type	multiple_choice	
Option	6	incorrect
Option	16	correct
Option	8	incorrect
Option	4	incorrect
Solution	Required number (x) = HCF of (1027 - 955), (1075 - 1027) and (1075 - 955) ⇒ Required number (x) = HCF of 72, 48 and 120 = 24 ⇒ Required number (x) = 24 ⇒ Factors of 24 = 6 , 8 , 4 but 16 is not the factor of 24	
Marks	1	0

Question	What is the largest number from which 456 and 553 are divided to give remainders 6 and 3	
Type	multiple_choice	
Option	100	incorrect
Option	50	correct
Option	10	incorrect
Option	30	incorrect
Solution	HCF of (456-6 , 553 -3) = 50 Ans	
Marks	1	0

Question	Five bells start ringing simultaneously and ring at intervals of 5,10,15,20 and 25 seconds respectively. How many times do they play together in 1 hour 20 minutes
Type	multiple_choice

Option	16	incorrect
Option	17	correct
Option	15	incorrect
Option	18	incorrect
Solution	LCM[5,10,15,20,25] = 5*2*3*2*5 = 300 sec = 5min A/q to times ring = 1h 20min/ 5 min = 80min/5min = 16 times And 1 time at the beginning so total ans = 16+1 = 17 times	
Marks	1	0