OBJECTIVE TYPE (1 Mark)

Q.1.	The LCM of smallest prime and smallest odd composite natural number is:							
	A	2	B	9	C	18	D	4

Q.2.	If sum of two numbers is 35 and their difference is 13, then the numbers are							
	A	25 and 10	B	24 and 11	C	15 and 20	D	none of these

Q.3.	HCF of $3^3 \times 5^4$ and $3^4 \times 5^2$ is:							
	A	$3^4 \times 5^4$	B	$3^3 \times 5^2$	C	$3^4 \times 5^3$	D	$5^4 \times 3^3$

Q.4.	The least possible number of planks, if three pieces of timber 42 m, 49 m and 63 m long have to be divided into planks of the same length is:							
	A	9	B	6	C	7	D	none of these

Q.5.	Given that HCF (156, 78) = 78. LCM (156, 78) is:							
	A	156	B	78	C	156×78	D	156×2

Q.6.	The lines represented by the equations x – 2y = 0 and 4x + 3y = 0 are:							
	A	parallel	B	intersecting at two different points	C	intersecting exactly at one point	D	coincident

Q.7.	Solve for x and y: 99x + 101y = 499; 101x + 99y = 501							
	A	x = 3, y = 2	B	x = 2, y = 3	C	x = -3, y = 2	D	x = 3, y = -2

Q.8.	For some positive integers *a* and 3, there exists unique integers q and r such that *a* = 3q+r, where r must satisfy:						
	A	$0 \leq r < 3$	B	$1 < r < 3$	C	$0 < r < 3$	D	$0 < r \leq 3$

Q.9.	The HCF and LCM of two numbers are 9 and 360 respectively. If one number is 45, the other number is:						
	A	720	B	648	C	1800	D	72

Q.10.	If 2x + 3y = 0 and 4x – 3y = 0, then x + y equals:						
	A	0	B	-1	C	1	D	2

Q.11.	Solve for x and y: $x + \dfrac{6}{y} = 6$; $3x - \dfrac{8}{y} = 5$						
	A	x = 2, y = 3	B	x = -2, y = -3	C	x = 3, y = 2	D	x = -3, y = -2

Q.12.	The HCF of 576 and 252 is:						
	A	27	B	36	C	72	D	18

Q.13.	The number of places of decimals after which the decimal expansion of $\dfrac{17}{8}$ will terminate is:						
	A	1	B	2	C	3	D	will not terminate

Q.14.	The sum of exponents of prime factors in the prime factorization of 250 is:						
	A	1	B	4	C	5	D	3

Q.15.	There is a circular path around a sports field. Komal takes 32 minutes to drive one round of the field while Indu takes 24 minutes for the same. Suppose they both start at the same point and go in the same direction, they will meet again at the starting point after:						
	A	48 minutes	B	96 minutes	C	8 minutes	D	240 minutes

Q.16.	$5\sqrt{y}$ is an irrational number if y is:						
	A	5	B	36	C	25	D	121

Q.17.	The HCF of 55 and 99 is expressible in the form 55m - 99, then the value of m is:						
	A	11	B	2	C	0	D	12

Q.18.	The pair of equations ax + 2y = 7 and 3x + by = 16 represents parallel lines if:						
	A	a = b	B	3a = 2b	C	2a = 3b	D	ab = 6

Q.19.	The rational number which has a a non-terminatig recurring decimal expansion is:						
	A	$\dfrac{7005}{64}$	B	$\dfrac{41}{30}$	C	$\dfrac{84}{40}$	D	$\dfrac{3985}{625}$

Q.20.	If two positive integers p and q can be expressed as $p = a^3b^2$ and $q = ab^3c^2$; a, b, c being prime numbers, then HCF (p, q) is:						
	A	abc	B	ab^2	C	$a^3b^3c^2$	D	$a^2b^2c^2$

Q.21.	The pair of equations y = 0 and y = -7 has:						
	A	one solution	B	two solutions	C	infinitely many solutions	D	no solutions

Q.22.	Given that LCM (91, 26) = 182, then HCF (91, 26) is:						
	A	13	B	26	C	17	D	9

Q.23.	Alexandra finds that she can give 3 haircuts and 2 hair dyes in 315 minutes. Giving 2 haircuts and 4 hair dyes takes 450 minutes. The system of equations representing the situation is:						
	A	3x + 2y = 315 2x + 4y = 450	B	3x + 2y = 450 2x + 4y = 315	C	2x + 2y = 315 3x + 4y = 450	D	3x + 4y = 315 2x + 3y = 450

Q.24.	If n is a natural number, then exactly one of the numbers n, n+ 2 and n + 4 is a multiple of:						
	A	2	B	3	C	5	D	7

Q.25.	If the lines given by 3x + 2ky = 2 and 2x + 5y + 1 = 0 are parallel, then the value of k is:						
	A	$\dfrac{-5}{4}$	B	$\dfrac{2}{5}$	C	$\dfrac{15}{4}$	D	$\dfrac{3}{2}$

Q.26.	Five years hence the age of Jacob will be 3 times that of his son. Five years ago, Jacob's age was seven times that of his son. What is the present age of Jacob?						
	A	30 years	B	40 years	C	10 years	D	35 years

Q.27.	The pair of equations $x + 2y + 5 = 0$ and $-3x - 6y + 1 = 0$ has:							
	A	unique solution	B	exactly two solutions	C	infinitely many solutions	D	no solution
Q.28.	Which of the numbers always ends with digit 6?							
	A	2^n	B	4^n	C	6^n	D	8^n
Q.29.	The HCF $\times$ LCM for the numbers 50 and 20 is:							
	A	10	B	100	C	1000	D	50
Q.30.	The value of k for which the equations $3x - y + 8 = 0$ and $6x - ky = -16$ represent coincident lines is:							
	A	$\dfrac{1}{2}$	B	$\dfrac{-1}{2}$	C	2	D	-2

Answers

	1	C	2	B	3.	B	4	D
	5	A	6	C	7	A	8	A
	9	D	10	A	11	C	12	B
Answers	13	C	14	B	15	B	16	A
	17	B	18	D	19	B	20	B
	21	D	22	A	23	A	24	B
	25	C	26	B	27	D	28	C
	29	C	30	C				

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