Practice Questions

1. The HCF of $\frac{2}{3}$, $\frac{8}{9}$, $\frac{64}{81}$ and $\frac{10}{27}$ is

(a) $\frac{2}{3}$

(b) $\frac{2}{81}$

(c) $\frac{160}{3}$

(d) $\frac{160}{81}$

2. The LCM of $\frac{1}{3}$, $\frac{5}{6}$, $\frac{2}{9}$ and $\frac{4}{27}$ is

(a) $\frac{1}{54}$

(b) $\frac{10}{27}$

(c) $\frac{20}{3}$

(d) None of these

3. The LCM of two numbers is 12 times their HCF. The sum of HCF and LCM is 403. If one number is 93, find the other.

(a) 124
(b) 128
(c) 134
(d) None of these

4. The product of two numbers is 1320 and their HCF is 6. The LCM of the numbers is

(a) 220
(b) 1314
(c) 1326
(d) 7920

5. The greatest number that exactly divides 105, 1001, and 2436 is

(a) 3
(b) 7

(c) 11
(d) 21

6. Find the greatest number that will divide 43, 91 and 183 to leave the same remainder in each case.

(a) 4
(b) 7
(c) 9
(d) 13

7. An electronic device makes a beep after every 60 sec. Another device makes a beep after every 62 sec. They beeped together at 10 a.m. The next time, when they would beep together at the earliest is

(a) 10:30 a.m.
(b) 10:31 a.m.
(c) 10:59 a.m.
(d) 11:00 a.m.

8. Four bells begin to toll together and toll respectively at intervals of 6, 7, 8, and 9 seconds. In 1.54 hours, how many times do they toll together and in what interval (seconds)?

(a) 14, 504
(b) 14, 480
(c) 12, 504
(d) 16, 580

9. Find the HCF of 132, 204 and 228.

(a) 12
(b) 18
(c) 6
(d) 21

10. If three numbers are 2a, 5a and 7a, what will be their LCM?

(a) 70a
(b) 65a
(c) 75a
(d) $70a^3$

11. The product of two whole numbers is 1500 and their HCF is 10. Find the LCM.

(a) 15000
(b) 150
(c) 1500
(d) 15

12. The ratio of two numbers is 3:4 and their LCM is 120. The sum of the numbers is

(a) 70
(b) 140
(c) 35
(d) 105

13. The greatest four-digit number which is exactly divisible by each one of the numbers 12, 18, 21, and 28 is

(a) 9288
(b) 9882
(c) 9828
(d) 9928

14. The HCF of 2 numbers is 11 and their LCM is 693. If their sum is 176, find the numbers.

(a) 99,77

(b) 110,66

(c) 88,77

(d) 121,44

15. If P is a prime number, then the LCM of P and (P + 1) is

(a) P(P+1)
(b) P(P-1)
(c) P(P+2)
(d) (P+1)(P-1)

16. The HCF and LCM of two numbers are 12 and 336 respectively. If one number is 84, find the other number.

(a) 46
(b) 36
(c) 72

(d) 48

17. The HCF of two numbers is 12 and their difference is 12. The number are:
(a) 66, 78
(b) 70, 82
(c) 94, 106
(d) 84, 96
18. The LCM and ratio of four numbers are 630 and 2:3:5:7 respectively. The difference between the greatest and the least number is
(a) 6
(b) 14
(c) 15
(d) 21

19. The maximum number of students among whom 1001 books and 910 pens can be distributed in such a way that each student gets the same number of pens and books is:
(a) 91
(b) 910
(c) 1001
(d) 1911

20. LCM of two number is 630 and their difference is 56. Then find their HCF.
(a) 12
(b) 14
(c) 18
(d) 22

21. If 11,109,999 is divided by 1111, then what is the remainder?
(a) 1098
(b) 1010
(c) 1110
(d) 1188

22. In a division sum, the quotient, dividend and remainder are 15, 940 and 25 respectively, the divisor is
(a) 31
(b) 50
(c) 60
(d) 61

23. A number when divided by 195 leaves a remainder 47. If the same number is divided by 15, the remainder will be

(a) 1
(b) 2
(c) 3
(d) 4

24. A number when divided by 5, leaves the remainder 3. What is the remainder when the square of the same number is divided by 5?

(a) 0
(b) 3
(c) 4
(d) 9

25. A number when divided by 13, leaves the remainder 1 and if the quotient thus obtained is divided by 5, we get a remainder of 3. What is the remainder when the number is divided by 65?

(a) 16
(b) 18
(c) 28
(d) 40

26. If 17^{200} is divided by 18, the remainder is

(a) 1
(b) 2
(c) 16
(d) 17

27. $(7^{19} + 2)$ is divided by 6. The remainder is

(a) 1
(b) 2
(c) 3
(d) 5

28. $3^{25} + 3^{26} + 3^{27} + 3^{28}$ is divisible by

(a) 11

(b) 16
(c) 25
(d) 30

29. 25^{25} is divided by 26, the remainder is
(a) 1
(b) 2
(c) 24
(d) 25

30. One less than 49^{15} is exactly divisible by
(a) 8
(b) 14
(c) 50
(d) 51

31. When 2^{256} is divided by 17, the remainder would be
(a) 1
(b) 14
(c) 16
(d) None of these

32. Find the remainder of the expression $\frac{2^{99}}{8}$
(a) 1
(b) 0
(c) 3
(d) 4

33. Find the remainder of the expression $\frac{7^3}{40}$.
(a) 23
(b) 24
(c) 25
(d) 20

34. Find the remainder of the expression $\frac{3^{101}}{8}$
(a) 1
(b) 2
(c) 3

(d) 4

35. Find the remainder of the expression $8 \times 9 \times 11$ is divided by 5.
(a) 2
(b) 3
(c) 1
(d) 0

36. The digit in the unit's place of $[(251)^{98}+(21)^{29}-(106)^{100}+(705)^{35}-(16)^{4}+259]$ is:
(a) 1
(b) 4
(c) 5
(d) 6

37. The digit in the unit's place of the product $[(2464)^{1793} \times (615)^{317} \times (131)^{491}$ is:
(a) 0
(b) 2
(c) 3
(d) 5

38. The unit's digit of 13^{2003} is
(a) 1
(b) 3
(c) 7
(d) 9

39. The digit in the unit's place of the number 123^{99} is
(a) 1
(b) 4
(c) 7
(d) 8

40. The digit in the unit's place of the number $67^{25}-1$ is
(a) 0
(b) 6

(c) 8
(d) None of these

41. The unit's digit in the product $274 \times 318 \times 577 \times 313$ is
(a) 2
(b) 3
(c) 4
(d) 5

42. The digit in the unit's place of the number represented by $(7^{95} - 3^{58})$ is
(a) 0
(b) 4
(c) 6
(d) 7

43. Unit's digit in $784^{126} + 784^{127}$ is
(a) 0
(b) 4
(c) 6
(d) 8

44. If m and n are positive integers, then the digit in the unit's place of $5^n + 6^m$ is always
(a) 1
(b) 5
(c) 6
(d) n + m

45. If a number is 32x54y is divisible by both 3 and 5 then find the value of x and y respectively?
(a) 1,2
(b) 1,0
(c) 0,1
(d) 2,1

46. 7386038 is divisible by
(a) 3

(b) 4
(c) 9
(d) 11

47. Which of the following numbers is a multiple of 8?
(a) 923872
(b) 923972
(c) 923862
(d) 923962

48. If 78*3945 is divisible by 11, where * is a digit, then * is equal to
(a) 0
(b) 1
(c) 3
(d) 5

49. If m and n are integers divisible by 5, which of the following is not necessarily true?
(a) m + n is divisible by 10
(b) m – n is divisible by 5
(c) $m^2 - n^2$ is divisible by 25
(d) None of these

50. Which of the following numbers is divisible by 3, 7, 9, and 11?
(a) 639
(b) 2079
(c) 3791
(d) 37911

51. Which of the following numbers is exactly divisible by 24?
(a) 35718
(b) 63810
(c) 537804
(d) 3125736

52. If n be any natural number, then by which largest number $(n^3 - n)$ is always divisible?

(a) 3
(b) 6
(c) 12
(d) 18

53. The product of any three consecutive natural numbers is always divisible by
(a) 3
(b) 6
(c) 9
(d) 15

54. The sum of any three consecutive odd numbers is always divisible by
I. 2
II. 3
III. 5
IV. 6

(a) Only I
(b) Only II
(c) Only I and II
(d) Only I and III

55. If p is prime number greater than 3, then $p^2 - 1$ is always divisible by
(a) 6 but not 12
(b) 12 but not 24
(c) 24
(d) None of these

56. Every rational number is also:
    (a) An integer
    (b) A real number
    (c) A natural number
    (d) A whole number

57. If n and p are odd numbers, which of the following is an even number?
(a) n + p
(b) n + p + 1
(c) np + 2
(d) np

58. The smallest three-digit prime number is:
    (a) 103
    (b) 101
    (c) 107
    (d) 109

59. P and Q are two positive integers such that PQ = 64. Which of the following cannot be the value of P+Q?
(a) 16
(b) 20
(c) 35
(d) 65

60. Which of the following is always odd?
(a) Sum of two odd numbers
(b) Difference of two odd numbers
(c) Product of two odd numbers
(d) Product of an even and odd number

Answers:

1	B	21	C	41	A
2	C	22	D	42	B
3	A	23	B	43	A
4	A	24	C	44	A
5	B	25	D	45	B
6	A	26	A	46	D
7	B	27	C	47	A
8	C	28	D	48	D
9	A	29	D	49	A
10	A	30	A	50	B
11	B	31	A	51	D
12	A	32	B	52	B
13	C	33	A	53	B

14	**A**	**34**	**C**	**54**	**B**
15	**A**	**35**	**A**	**55**	**C**
16	**D**	**36**	**B**	**56**	**B**
17	**D**	**37**	**A**	**57**	**A**
18	**C**	**38**	**C**	**58**	**B**
19	**A**	**39**	**C**	**59**	**C**
20	**B**	**40**	**B**	**60**	**C**