Previous Year Topic -wise SSC CGL 2022

Smart Practice Question Series

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MATHEMATICS

Chapter 1 : Number System

Number System

1. What is the ratio between the HCF and LCM of the numbers whose LCM is 48 and the product of the numbers is 384?
   A. 1 : 4
   B. 1 : 6
   C. 1 : 3
   D. 2 : 5

Number System

2. What is the remainder when 8127 is divided by 8?
   A. 5
   B. 7
   C. 4
   D. 6

Number System

3. Two numbers are in the ratio of 6 : 5. If their HCF is 3, then what is the LCM of the two numbers?
   A. 64
   B. 110
   C. 90
   D. 80

Number System

4. What will be the remainder when 2727 + 27 is divided by 28?
   A. 28
   B. 27
   C. 25
   D. 26

Number System

5. The value of $\dfrac{428\times428\times428+348\times348\times348}{428\times428-428\times348+348\times348}$ is:

A. 776

B. 62080

C. 80

D. 40

Number System

6. If the 5-digit number 750PQ is divisible by 3, 7 and 11, then what is the value of P + 2Q?
    A. 17
    B. 15
    C. 18
    D. 16

Number System

7. The ratio of two numbers is 5 : 4 and their HCF is 4. What is their LCM?
    A.   80
    B.   48
    C.   36
    D.   60

Number System

8. What is the largest common divisor of the numbers 1026, 2268 and 2430?
   A. 108
   B. 54
   C. 81
   D. 27

Number System

9. If the 4-digit number x67y is exactly divisible by 9, then the least value of $(x + y)$ is _____.

   A.   9
   B.   0
   C.   5
   D.   3

Number System

10. In a class of students, the first student has 2 toffees, second has 4 toffees, third has 6 toffees and so on. If the number of students in the class is 25, then the total number of toffees are divisible by _____.
    A. 5 and 7
    B. 5 and 13
    C. 11 and 13
    D. 7 and 11

Number System

11. What will be the least number which when doubled will be exactly divisible by 15, 18, 25 and 32?
    A. 3600
    B. 7200
    C. 6400
    D. 3200

Number System

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Tier-1

2 Dec, 2022
Shift-3 (2:30 PM -
3:30 PM)

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12. The difference of two numbers is 1564. After dividing the larger number by the smaller, we get 6 as quotient and 19 as remainder. What is the smaller number?
  A. 456
  B. 287
  C. 623
  D. 309

Number System

13. Simplify the following $\frac{762\times762\times762+316\times316\times316}{762\times762-762\times316+316\times316}$

    A.   1064

    B.   1056

    C.   1042

    D.   1078

Number System

14. The HCF of two numbers 2040 and 391 is:
    A. 17
    B. 21
    C. 16
    D. 18

Number System

15. Three numbers are in the ratio of 2 : 3 : 5 and their LCM is 90. Find their HCF.
    A. 9
    B. 1
    C. 6
    D. 3

Number System

16. Which of the following numbers are divisible by 2, 3 and 5?
    A. 5467760
    B. 1345678
    C. 2345760
    D. 2456732

Number System

17. The nearest number which is greater to 87501, and is completely divisible by 765 is :
    A. 88975
    B. 87975
    C. 87966
    D. 87775

Number System

18. Calculate the HCF of $\frac{12}{5}, \frac{14}{15}$ and $\frac{16}{17}$

    A. $\frac{4}{255}$

    B. $\frac{3}{255}$

    C. $\frac{2}{255}$

    D. $\frac{1}{255}$

Number System

19. What will be the remainder when 7^{42} is divided by 48?
    A. 2
    B. 3
    C. 1
    D. 0

Number System

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20. What is the HCF of 36 and 198?
    A. 36
    B. 22
    C. 18
    D. 9

Number System

21. A number when divided by 7 leaves remainder of 4. If the square of the same number is divided by 7, then what is the remainder?
    A. 3
    B. 1
    C. 4
    D. 2

Number System

22. The value of 95 × 105 is:
    A.   9981
    B.   9935
    C.   9965
    D.   9975

Number System

23. The LCM of two numbers is 120 and the numbers are in the ratio 3 : 8. The sum of the numbers will be:
    A. 48
    B. 55
    C. 45
    D. 60

Number System

24. Find the value of the following expression $12^3+(-8)^3+(-4)^3$
   A. 952
   B. 1152
   C. 1052
   D. 852

Number System

25. Find the largest number of 3 digits divisible by 4 and 7.
    A. 960
    B. 980
    C. 990
    D. 970

Number System

26. If the 8-digit number 123456xy is divisible by 8, then the total possible pairs of (x,y) are:
    A.   8
    B.   13
    C.   10
    D.   11

Number System

27. Which of the following pairs of non-zero values of p and q make 6-digit number 674pq0 divisible by both 3 and 11?
 A. $p = 2$ and $q = 2$
 B. $p = 5$ and $q = 4$
 C. $p = 4$ and $q = 2$
 D. $p = 5$ and $q = 2$

Number System

28. The HCF of two numbers 110 and 1980 is:
    A.   140
    B.   110
    C.   120
    D.   180

Number System

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29. On dividing a certain number by 363, we get 17 as the remainder. What will be the remainder when the same number is divided by 11?

A.   7
B.   8
C.   6
D.   9

Number System

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Tier-1

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30. The largest five-digit number which when divided by 7, 9 and 11, leaves the same remainder as 3 in each case, is:
   A.   95840
   B.   98685
   C.   96720
   D.   99795

Number System

31. Find the greatest 5-digit number which is divisible by 11, 33, 99 and 121.
    - A. 90099
    - B. 99990
    - C. 99099
    - D. 90909

Number System

32. What is the smallest number that should be added to 4567 so that the sum is divisible by 7?
    A. 7
    B. 5
    C. 6
    D. 4

Number System

33. The LCM of the two numbers is 4104 and the HCF is 9. If one of the numbers is 171, find the other.
    A. 218
    B. 215
    C. 220
    D. 216

Number System

34. If the 9-digit number 83P93678Q is divisible by 72, then what is the value of $\sqrt{P^2 + Q^2 + 12}$

   A.   6
   B.   7
   C.   8
   D.   9

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Tier-1

6 Dec, 2022
Shift-1 (9:00 AM -
10:00 AM)

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35. The value of 97 × 103 is _____.
    A.   7999
    B.   9991
    C.   8991
    D.   9981

Number System

36. Find the greatest number that will divide 49, 147 and 322 to leave the same remainder in each case.
    A. 9
    B. 5
    C. 7
    D. 8

Number System

37. A number n when divided by 6, leaves a remainder 3. what will be the remainder when ($n^2 + 5n + 8$) is divided 6?
    A. 1
    B. 3
    C. 5
    D. 2

Number System

38. $3^{50} + 9^{26} + 27^{18} + 9^{28} + 9^{29}$ is divisible by which of the following integers?
    A.   11
    B.   5
    C.   7
    D.   2

Number System

39. Choose the correct statement from the following.
  A. HCF is the least common multiple of the given numbers.
  B. HCF of two or more numbers is the highest number which perfectly divides all the given numbers.
  C. HCF is also called the least common divisor.
  D. In prime factorisation method of HCF, the multiples of all the given numbers are listed.

Number System

40. What is the smallest perfect square which is completely divisible by each of 16, 18 and 36?
    A.   144
    B.   81
    C.   196
    D.   169

Number System

41. Numbers divisible by 9 between 43 and 481 are:
    A. 51
    B. 49
    C. 48
    D. 50

Number System

42. The sum of two numbers is 18 and their HCF and LCM are 3 and 54 respectively. What will be the sum of their reciprocals?

   A. $\dfrac{1}{7}$

   B. $\dfrac{1}{11}$

   C. $\dfrac{1}{6}$

   D. $\dfrac{1}{9}$

Number System

43. What should be subtracted from 246837 to make it divisible by 13?
    A. 4
    B. 5
    C. 3
    D. 6

Number System

44. If a number K = 42 × 25 × 54 × 135 is divisible by 3^a, then find the maximum value of a.
    A.   6
    B.   7
    C.   4
    D.   5

Number System

45. How many numbers from 1 to 430 are divisible by 7 and 11 both?
    A. 5
    B. 11
    C. 9
    D. 7

Number System

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Tier-1

7 Dec, 2022
Shift-2 (11:45 AM -
12:45 PM)

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46. Find the least number exactly divisible by 9,24 and 36.
    A.   72
    B.   36
    C.   24
    D.   9

Number System

47. 9435 is added to 7593, then 2607 is subtracted from the sum. The result is divisible by:
   A. 4
   B. 10
   C. 3
   D. 5

Number System

48. Find the LCM of 186.6 and 373.2.
    A. 373.2
    B. 398.2
    C. 186.6
    D. 276.6

Number System

49. If the HCF of two numbers is 8, then which of the following can NEVER be their LCM?
   A.   56
   B.   48
   C.   42
   D.   40

Number System

50. The HCF of three numbers 105, 335 and 465 will be:
    A.   11
    B.   5
    C.   7
    D.   3

Number System

51. A number when divided by 221, leaves a remainder 30. If the same number is divided by 13, the remainder will be:
    A. 4
    B. 3
    C. 2
    D. 1

Number System

52. In a division sum, the divisor is 10 times the quotient and four times the remainder. What is the dividend if the remainder is 45?
    A. 4123
    B. 3285
    C. 2895
    D. 5412

Number System

53. The HCF of 222, 642 and 1062 is _____.

    A.   6
    B.   8
    C.   4
    D.   2

Number System

54. Find the HCF of 4.08 and 6.63.
    A. 0.50
    B. 0.52
    C. 0.51
    D. 0.53

Number System

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Tier-1

8 Dec, 2022
Shift-3 (2:30 PM -
3:30 PM)

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55. 7 is added to a certain number and the sum is multiplied by 5. The product is then divided by 3 and 4 is subtracted from the quotient. If the result comes to 16, then what is the original number?
A.   3
B.   1
C.   5
D.   4

Number System

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Tier-1

8 Dec, 2022
Shift-4 (5:15 PM -
6:15 PM)

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56. If 7-digit number 678p37q is divisible by 75 and p is not a composite, then the values of p and q are:

A.   p = 5, q = 5
B.   p = 3, q = 0
C.   p = 3, q = 5
D.   p = 2, q = 5

Number System

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Tier-1

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Shift-4 (5:15 PM -
6:15 PM)

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57. If the HCF of xy^3, x^2y and x^3y^4 is xy, then their LCM is____
   A. x^3y^4
   B. x^3y^3
   C. x^4y^3
   D. x^4y^4

Number System

58. The LCM of 96, 136 and 504 is:
    A. 34272
    B. 36548
    C. 25872
    D. 28564

Number System

SSC CGL
Tier-1

9 Dec, 2022
Shift-1 (9:00 AM -
10:00 AM)

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59. The largest 5-digit number that is exactly divisible by 88 is:
    A. 99968
    B. 99689
    C. 68999
    D. 66698

Number System

60. The LCM of 144, 360 and 450 is:
    - A. 4800
    - B. 3600
    - C. 7200
    - D. 2400

61. If the number 123456789 is divided by 9, then the remainder is:
    A. 0
    B. 1
    C. 2
    D. 3

Number System

62. The HCF of $\frac{1}{2}, \frac{3}{4}, \frac{5}{6}$ and $\frac{7}{8}$ is:

   A. $\frac{105}{2}$

   B. $\frac{1}{24}$

   C. $\frac{7}{24}$

   D. $\frac{1}{48}$

63. In a 7-digit number 89476*2, what is the smallest possible value of * such that the number is divisible by 8?
   A.   2
   B.   1
   C.   4
   D.   3

Number System

64. The value of $\dfrac{146 \times 146 \times 146 - 143 \times 143 \times 143}{146 \times 146 + 143 \times 143 + 146 \times 143}$ is:

  A. 0

  B. 3

  C. 289

  D. 1

Number System

65. The remainder when $19^{19}+20$ is divided by 18, is:
    A. 3
    B. 2
    C. 1
    D. 0

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66. The LCM of $\frac{3}{8}, \frac{5}{16}$ and $\frac{7}{2}$ is:

A. $101\frac{1}{2}$

B. $52\frac{1}{2}$

C. $28\frac{1}{2}$

D. $25\frac{1}{2}$

Number System

67. The HCF of two numbers is 21 and their LCM is 840. If one of the numbers is 49, then the other number is:
   A. 650
   B. 540
   C. 810
   D. 360

Number System

68. The least number that should be added to 35460 so that the sum is exactly divisible by 3, 4, 5 and 7 is:
    A. 84
    B. 420
    C. 240
    D. 180

Number System

69. The LCM of 1.2 and 2.7 is:
    A. 5.4
    B. 10.8
    C. 1.08
    D. 32.4

Number System

70. Any six-digit number that is formed by repeating a three-digit number, is always divisible by:
   A. 111
   B. 1001
   C. 19
   D. 101

Number System

71. The HCF of three numbers 98, 175 and 210 will be:
    A. 6
    B. 3
    C. 5
    D. 7

Number System

72. If the seven-digit number 52A6B7C is divisible by 33, and A, B, C are primes, then the maximum value of 2A+3B+C is:

   A.   32
   B.   23
   C.   27
   D.   34

Number System

73. Ram starts from point A at 8 a.m. and reaches point B at 2 p.m. on the same day. On the same day, Raju starts from point B at 8 a.m. and reaches point A at 6 p.m. on the same day. Both points A and B are separated by only a straight line track. At what time they both meet?
   A. 11:45 a.m.
   B. 9:42 a.m
   C. 10:42 a m.
   D. 12:42 p.m.

Number System

74. The value of $\dfrac{1.6 \times 1.6 \times 1.6 - 0.6 \times 0.6 \times 0.6}{1.6 \times 1.6 + 1.6 \times 0.6 + 0.6 \times 0.6}$ is:

   A.   0
   B.   1
   C.   −1
   D.   2

Number System

75. Find the HCF of 60, 148 and 382.
    A. 2
    B. 6
    C. 4
    D. 24

76. If a 7-digit number 54p3987 is divisible by 11, then p is equal to:
    A.   5
    B.   9
    C.   4
    D.   1

Number System

77. Determine the LCM of two numbers if their HCF is 9 and their ratio is 14 : 19.
    A. 2394
    B. 3990
    C. 1596
    D. 3192

Number System

78. Choose the option in which the numbers are in correct ascending order.

A. $\frac{4}{5}, \frac{2}{3}, \frac{1}{11}$ and $\frac{2}{9}$

B. $\frac{1}{11}, \frac{2}{9}, \frac{2}{3}$ and $\frac{4}{5}$

C. $\frac{2}{9}, \frac{1}{11}, \frac{4}{5}$ and $\frac{2}{3}$

D. $\frac{2}{3}, \frac{4}{5}, \frac{1}{11}$ and $\frac{2}{9}$

Number System

79. The HCF of two numbers is 17 and the other two factors of their LCM are 11 and 19. The smaller of the two numbers is:
    A. 209
    B. 187
    C. 323
    D. 306

Number System

80. A four-digit pin, say abcd, of a lock has different non-zero digits. The digits satisfy b = 2a, c = 2b, d = 2c. The pin is divisible by _____.
  A. 2, 3, 5
  B. 2, 3, 7
  C. 2, 3, 13
  D. 2, 3, 11

Number System

81. The HCF of three numbers 72, 108 and 2010 is:
    A. 18
    B. 6
    C. 12
    D. 5

Number System

82. If the number 6788934a4 is divisible by 11,then find the smallest whole number in the place of a.
    A.   3
    B.   4
    C.   5
    D.   2

Number System

83. If the nine-digit number 3422213AB is divisible by 99, then what is the value of 2A + B?
    A. 11
    B. 12
    C. 10
    D. 13

Number System

84. If $a = -12$, $b = -6$ and $c = 18$, then what is the value of $(2abc)/9$
   A.   554
   B.   288
   C.   –288
   D.   144

Number System

85. The ratio of two numbers is 6 : 7 and their HCF is 3. Their LCM is _____.
    A. 124
    B. 128
    C. 122
    D. 126

MATHEMATICS

Number System

Answer key																
1	B	11	A	21	D	31	C	41	B	51	A	61	A	71	D	81	B
2	B	12	D	22	D	32	D	42	D	52	B	62	B	72	B	82	D
3	C	13	D	23	B	33	D	43	D	53	A	63	D	73	A	83	A
4	D	14	A	24	B	34	C	44	B	54	C	64	B	74	B	84	B
5	A	15	D	25	B	35	B	45	A	55	C	65	A	75	A	85	D
6	A	16	C	26	B	36	A	46	A	56	C	66	B	76	A		
7	A	17	B	27	D	37	D	47	C	57	A	67	D	77	A		
8	B	18	C	28	B	38	A	48	A	58	A	68	C	78	B		
9	C	19	C	29	C	39	B	49	C	59	A	69	B	79	B		
10	B	20	C	30	D	40	A	50	B	60	B	70	B	80	C		