Number System

NUMBER SYSTEM

Q 1. What is the unit digit of the product of 207·781·39·94?

(a) 9 **(b) 1** **(c) 7** **(d) 2**

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Q 2. What will come in the place of unit digit in the value of $(7^{35}).(3^{71}).(11^{55})$?

(a) 0 (b) 3 (c) 1 (d) 6

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Q 3. Find the number of zeros at the end of product of 1 × 2 × 3 × 4 × 5 × 6 ..... × 99 × 100 :

(a) 22 **(b) 24** **(c) 26** **(d) 28**

NUMBER SYSTEM

Q 4. Find the number of zeros at the end of product of 2 × 4 × 6 × 8 × 10 × ..... × 98 × 100 :

(a) 10 **(b) 11** **(c) 12** **(d) 15**

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Q 5. Find the number of zeros at the end of product of 10 × 20 × 30 × ..... × 2000 :

(a) 222 **(b) 249** **(c) 226** **(d) 220**

NUMBER SYSTEM

Q 6. Find the number of factors of 100 :

(a) 8 **(b) 9** **(c) 10** **(d) 12**

NUMBER SYSTEM

Q 7. Find the number of factors of 80 :

(a) 10 **(b) 12** **(c) 6** **(d) 8**

NUMBER SYSTEM

Q 8. Find the sum of the factors of 100 :

(a) 127 **(b) 217** **(c) 219** **(d) 189**

NUMBER SYSTEM

Q 9. Find the sum of the factors of 50 :

(a) 92 **(b) 93** **(c) 97** **(d) 91**

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Q 10. Find the average of the factors of 60 :

(a) 12 **(b) 13** **(c) 14** **(d) 16**

NUMBER SYSTEM

Q 11. Find the product of the factors of 100 :

(a) 10^9 **(b) $10^{9/2}$** **(c) $10^{11/2}$** **(d) 10^{19}**

NUMBER SYSTEM

Q 12. How many 3 digit numbers are completely divisible by 6?

(a) 149 **(b) 150** **(c) 151** **(d) 166**

NUMBER SYSTEM

Q 13. How many 3 digit numbers are completely divisible by 3 and 4 :

(a) 67 **(b) 75** **(c) 57** **(d) 83**

NUMBER SYSTEM

Q 14. What will be the remainder when 17^{200} is divided by 18?

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

NUMBER SYSTEM

Q 15. What will be the remainder when (67^{67} + 67) is divide by 68?

(a) 1 **(b) 66** **(c) 67** **(d) 60**

NUMBER SYSTEM

Q 16. Which of the following number will completely divide $(49^{15} - 1)$?

(a) 8 **(b) 14** **(c) 51** **(d) 50**

NUMBER SYSTEM

Q 17. A number when divided by 6 leaves a remainder 3. When the square of the number is divided by 6, the remainder is:

(a) 0 **(b) 1** **(c) 3** **(d) 2**

NUMBER SYSTEM

Q 18. A number when divided successively by 4 and 5 leaves remainders 1 and 4 respectively. When it is successively divided by 5 and 4, then the respective remainders will be :

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

NUMBER SYSTEM

Q 19. A number was divided successively in order by 4, 5, and 6. The remainder were respectively 2, 3 and 4. The number is :

(a) 214 **(b) 476** **(c) 954** **(d) 1908**

NUMBER SYSTEM

Q 20. Which one of the following numbers will completely divide ($4^{61} + 4^{62} + 4^{63} + 4^{64}$)?

(a) 3 **(b) 9** **(c) 11** **(d) 17**

NUMBER SYSTEM

Q 21. Which one of the following number will completely divide $5^{51} + 5^{52} + 5^{53}$?

(a) 11 **(b) 12** **(c) 31** **(d) 32**

NUMBER SYSTEM

Q 22. Which one of the following is the common factor of $(47^{43} + 43^{43})$ and $(47^{47} + 43^{47})$?

(a) 47 – 43 **(b) 47 + 43** **(c) $47^{43} + 43^{43}$** **(d) $47^{47} + 43^{47}$**

NUMBER SYSTEM

Q 23. Which one of the following number is completely divisible by 99?

(a) 3572 (b) 13595 (c) 913464 (d) 114345

NUMBER SYSTEM

Q 24. Which one of the following number is completely divisible by 45?

(a) 181560 (b) 331145 (c) 202860 (d) 203350

NUMBER SYSTEM

Q 25. The sum of digits of a two digit number is 7. If the digits of the number are interchanged, the number so formed is greater than the original number by 27. Find the original number :

(a) 29 **(b) 25** **(c) 79** **(d) 32**

(e) None of these

NUMBER SYSTEM

Q 26. What is the digit in the blank space of the number 34*7 so that the number is divisible by 11?

(a) 3 (b) 6 (c) 7 (d) 8

NUMBER SYSTEM

Q 27. If the sum of, the digits of a two digit number and the number formed by reversing its digit is 99, what is the sum of the digits of the original number?

(a) 9 (b) 8 (c) 11 (d) 10

NUMBER SYSTEM

Q 28. If the sum of, the digits of a two digit number and the number formed by reversing its digits is N, Which one of the following number will completely divide N?

(a) 9 (b) 7 (c) 11 (d) 18

NUMBER SYSTEM

Q 29. If the difference of, a two digit number and a number formed by reversing its digit is N, Which one of the following number will completely divide N :

(a) 9 (b) 7 (c) 11 (d) 5

NUMBER SYSTEM

Q 30. If the difference of a two digit number and the number formed by reversing its digit is 45, what is the difference of the digits of the original number :

(a) 9 (b) 2 (c) 5 (d) 1

NUMBER SYSTEM

Q 31. A 4 digit number is formed by repeating 2-digit number such as 2525, 3232 etc. Any number of this form is always divisible by :

(a) Smallest two digit prime number (b) 7

(c) 13 (d) smallest three digit prime number

NUMBER SYSTEM

Q 32. $7^{12} - 4^{12}$ is exactly divisibly by which of the following?

(a) 36 (b) 35 (c) 34 (d) 33

NUMBER SYSTEM

Q 33. Find the sum of first fifty natural numbers :

(a) 1144 **(b) 1275** **(c) 1325** **(d) 1075**

NUMBER SYSTEM

Q 34. Find the value of 51+52+53+54+……+100 :

(a) 2443 (b) 1754 (c) 2673 (d) 3775

NUMBER SYSTEM

Q 35. Find the sum of the squares of first 30 natural numbers :

(a) 9455 (b) 8372 (c) 7849 (d) 6973

NUMBER SYSTEM

Q 36. Find the value of $2^2 + 4^2 + 6^2 + 8^2 + \ldots\ldots + 20^2$:

(a) 2870 (b) 1321 (c) 1540 (d) 1550

NUMBER SYSTEM

Q37. Find the value of $1^2 + 3^2 + 5^2 + 7^2 + \ldots\ldots\ldots\ldots + 19^2$:

(a) 1335 **(b) 1330** **(c) 1332** **(d) 1334**

NUMBER SYSTEM

Q38. If $1^2 + 2^2 + 3^2 + 4^2 + \ldots\ldots\ldots + 10^2 = 385$, find the value of $2^2 + 4^2 + 6^2 + \ldots\ldots + 20^2$:

(a) 1250 **(b) 1540** **(c) 1190** **(d) 1375**

NUMBER SYSTEM

Q 39. Find the value of $11^2 + 12^2 + 13^2 + 14^2 + \ldots\ldots\ldots\ldots + 20^2$:

(a) 2870 (b) 2485 (c) 2670 (d) 2495

NUMBER SYSTEM

Q 40. Find the value of $1^3 + 3^3 + 5^3 + 7^3 + \ldots\ldots\ldots\ldots + 29^3$:

(a) 36100 (b) 101025 (c) 32500 (d) 44700

NUMBER SYSTEM

Q 41. If $1^3 + 2^3 + 3^3 + 4^3 + \ldots\ldots\ldots\ldots\ldots\ldots\ldots + 10^3 = 3025$, find the value of $2^3 + 4^3 + 6^3 + \ldots + 20^3$:

(a) 2875 (b) 24200 (c) 3080 (d) 39400

NUMBER SYSTEM

Q 42. Find the sum of the all even numbers upto 100 :

(a) 2295 (b) 2425 (c) 2495 (d) 2550

NUMBER SYSTEM

Q 43. Find the sum of the all odd number upto 100 :

(a) 2100 (b) 2500 (c) 2300 (d) 2200

NUMBER SYSTEM

Q 44. Find the number of prime factors of $6^{20} \cdot 11^{11} \cdot 21^{21}$:

(a) 83 (b) 93 (c) 103 (d) 113

NUMBER SYSTEM

Q 45. Find the number of prime factors of $14^{14} \cdot 15^{15}$:

(a) 48 (b) 58 (c) 68 (d) 78

NUMBER SYSTEM

Q 46. What will be the remainder when $(27^{27} + 17^{27})$ is divided by 11?

(a) 27 (b) 17 (c) 0 (d) 1

NUMBER SYSTEM

Q 47. If n is a natural number, (n^3 - n) will always be divisible by:

(a) 6 only (b) 6 and 12 both (c) 12 only (d) by 18 only

NUMBER SYSTEM

Q 48. ($x^n - a^n$) is completely divisible by (x - a), when

(a) n is any natural number

(b) n is an even natural number

(c) n is an odd natural number

(d) n is a prime number

NUMBER SYSTEM

Q 49. ($x^n - a^n$) is completely divisible by (x + a), when

(a) n is any natural number

(b) n is an even natural number

(c) n is an odd natural number

(d) n is a prime number

NUMBER SYSTEM

Q 50. $(x^n + a^n)$ is completely divisible by $(x + a)$, when

(a) n is any natural number

(b) n is an even natural number

(c) n is an odd natural number

(d) n is a prime number

NUMBER SYSTEM

Q 51. Which one of the following is a prime number?

(a) 161 (b) 221 (c) 373 (d) 437

NUMBER SYSTEM

Q 52. Which one of the following is a prime number?

(a) 119 (b) 187 (c) 247 (d) 71

NUMBER SYSTEM

Q 53. Find the largest four digit number which is divisible by 88 :

(a) 9944 (b) 9768 (c) 9988 (d) 8888

NUMBER SYSTEM

Q 54. If a number is divided by 111, the remainder is 31. What will be the remainder if it is divided by 37?

(a) 31 (b) 32 (c) 33 (d) 0

NUMBER SYSTEM

Q 55. On multiplying a number by 7, the product is a number made of only digit 3. The smallest such number is:

(a) 47619 **(b) 47719** **(c) 48619** **(d) 47649**