**Number System-2**

**Divisibility**

**1.** What is the least value of x, so that 23x57 is divisible by 3?

A. 2 B. 0 C. 1 D. 3

**2.** What is the least value of p, so that 123p578 is divisible by 11?

A. 7 B. 8 C. 6 D. 5

**3.** What is the least value of x, So that 2x5472 is divisible by 9?

A. 7 B. 8 C. 9 D. 3

**4.** Find the value of |A – B| if 32A4873B is divisible by 72.

A. 0 B. 1 C. 2 D. 3

**5.** How many numbers of the form 34a5b are divisible by 36?

A. 2 B. 3 C. 4 D. 8

**6.** Find the remainder when 111222333444555666777888999 divided by 11.

A. 0 B. 1 C. 5 D. 2

**7.** What number should be subtracted from + 4−7x + 12, if it is to be perfectly divisible by x+3?

**A.** 42 B. 39 C. 13 D. None of these

**8.** How many natural numbers below 660 are divisible by 5 and 11 but not by 3?

A. 8 B. 9 C. 10 D. 11

**9.** 2AB5 is a four-digit number divisible by 25. If the number formed from the two digits AB is a multiple of 13, then AB=

A. 10 B. 25  **C. 52** D. 65

**10.** What is the value of M and N respectively if M39048458N is divisible by 8 and 11, where M and N are single digit integers?

A. 7, 8 B. 8, 6  **C. 6, 4** D. 5, 4

**Reminders**

**11.** Find the remainder when 1201 × 1203 ×1205 × 1207 is divided by 6.

A. 15 B. 2 C. 13 D. 3

**12.** Find the remainder when 1! + 2! + 3! + 4! + 5! + .......100! is divided by 24.

A. 8 B. 9 C. 3 D. 1

**13.** Find the remainders when are divided by 7 respectively.

A. 1, 1, 1 B. 1, 1, 0 C. 1, 1, 2 D. 1, 1, 6

**19.** Find the remainder when is divided by 89?

A. 1 **B.** 2 C. 87 D. 88

**20.** What is the remainder when is divided by 8?

A. 1 B. 2 **C.** 3 D. 5

**21.** Find the remainder when is divided by 162?

A. 0 B. 9 C. 11 **D. 81**

**22.** What is the remainder when +++....+ is divided by 6?

A. 3 B. 2 **C.** 0 D. 5

**23.** What is the remainder when is divided by 800?

A.143 B. 243 **C. 343** D. 443

**24.** Find the remainder when is divided by 5.

A. 4 B. 5 **C. 3** D. 7

**25.** What is the remainder left after dividing 1!+2!+3!.....+100! by 7?

A. 0 **B. 5** C. 14 D. 21

**Unit digits**

**34.** The unit digit in (-) is

A. o B. 1 C. 3 D. 5

**35.** Find the unit place of .

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

**36.** What is the units place digit in the expansion of

A. 5 B. 3 C. 1 D. 2

**37.** Find the unit place of

A. 6 B. 0 C. 2 D. 4

**38.** The unit digit in is

A. 3 B. 5 C. 0 D. 7

**39.** Find the last two digits of .

A. 01 B. 03 C. 07 D. 09

**40.** Find the tens place digit in .

A. 0 B. 1 C. 2 D. 3

**41.** Find the unit digit of the expression + + …….+

A. 31 B.35 C. 45 D. 41

**42.** Find the last two digits in the expansion of .

A. 31 B. 35 C. 45 D. 41

**43.** Find the last two digits of

A. 72 B. 82 C. 92 D. 02

**44.** What is the unit digit of ?

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

**45.** What is the unit place digit in x x

A. 4 B. 3 C. 7 D. 5

**46.** The unit digit in (x x) is Z

A. 4 B. 6 C. 8 D. 9

**47.** The unit place of

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

**48.** Find the last two digits of

A. 81 B. 45 C. 57 D. 73

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| 1. C | 2.B | 3.A | 4.D | 5.B | 6.C | 7.A | 8.A | 9.C | 10.C | 11. D | 12.B | 13.D |
| 14.C | 15.B | 16.D | 17.B | 18.C | 19.B | 20.C | 21.D | 22.C | 23.C | 24.C | 25.B | 26. D |
| 27. D | 28.D | 29 | 30.A | 31.C | 32.D | 33.C | 34.A | 35.D | 36.C | 37.D | 38.D | 39.A |
| 40.D | 41.C | 42. C | 43.C | 44.A | 45.A | 46.C | 47.A | 48.A |  |  |  |  |