Day - 8

UNIT DIGIT

LAST Number of a digit is the unit digit.

BASICS

1) $936 + 972 + 221 = \ldots \boxed{9}$

2) $2369 + 2434 = 9 + 4 = 1\boxed{3}$

3) $93 \times 46 = 18$

4) $24 \times 98 \times 236 = 4 \times 8 \times 6 \Rightarrow 32 \times 6 = 1\boxed{2}$

5) $1936 - 243 = \boxed{3}$

6) $1934 - 249 \Rightarrow 14 - 9 \Rightarrow \boxed{5}$

7) $7^3 = 7 \times 7 \times 7 = 49 \times 7 = 6\boxed{3}$

8) $7^4 = 63 \times 7 \Rightarrow 2\boxed{1}$

9) $8^3 = 81 \times 81 \times 81 = 1$

MODEL-1

$0^n = 0 \quad 1^n = 1 \quad 5^n = 5 \quad 6^n = 6$

① $266^{13} + 395^{45} = 6 + 5 \Rightarrow 11$

② $2311^{123} \times 646^{94} \Rightarrow 1 \times 6 = 6$

MODEL-2

$4^{odd} = 4$ | $9^{odd} = 9$

$4^{Even} = 6$ | $9^{Even} = 1$

$249^{33} + 254^{36} + 256^{123} \Rightarrow 9 + 6 + 6 = 21$

MODEL-3 (2, 3, 7, 8)

① $212^{79} = 2^3 \Rightarrow 8$

$4 \overline{)79}$ 19, 4, 39, 36, 3 → power

② $73^{52} \Rightarrow 3^2 \Rightarrow 9$

$4 \overline{)54}$ 52, 2 → Power

③ $378^{41025} \Rightarrow 3^1 = 3$

$4 \overline{)25}$ 24, 1 → Power

④ $214^{7164} \Rightarrow 4^4 = 16 \times 16 \Rightarrow 36$

$4 \overline{)64}$ 64, 0 → Powers not

Ex:

1) $124^{376} + 124^{375} \Rightarrow 4^0 + 6 = 1$

2) $25^{6527} + 26^{526} + 13^{54} \Rightarrow 5 + 6 = 11 + 9 \Rightarrow 2$ (D)

3) $7^{295} \times 3^{158} \times 241^{476} \Rightarrow 3^1 \times 3^2 \times 1$

$\Rightarrow 3 \times 9 \times 1 \Rightarrow 27$

$\Rightarrow 2$ (1)

4) $\left[(251)^{98} + (21)^{29} - (106)^{100} + (705)^{36} - 16^{4259}\right]$

$1 + 1 - 6 + 5 - 6^1 + 9 \Rightarrow 4$