

④ If 5 is at the units place,

$$\begin{array}{c} \text{---} \text{---} \text{---} \text{---} \text{---} 5 \\ 1 \times 2 \times 3 \times 4 \Rightarrow 24 \text{ ways of five digit} \\ \text{number.} \end{array}$$

* Hence total sum of the digits at units place for all the possible numbers is $4! (5+4+3+2+1)$

* Similarly, sum of digits at tens place is
 $= 10 \times 4! (5+4+3+2+1)$

* Illy, for 100^{th} place, 1000^{th} place, 10000^{th} place.

$$= 10^2 \times 4! (5+4+3+2+1), 10^3 \times 4! (5+4+3+2+1), \\ 10^4 \times 4! (5+4+3+2+1)$$

$$\text{Total sum i.e., Required Answer} = 4! (5+4+3+2+1) (10+1+100+10^3+10^4)$$

$$= 24 \times 15 \times \left(\frac{10^5 - 1}{10 - 1} \right) = \underline{3999960}$$