Digital Sum

Digital sum is the sum obtained after adding all the digits of any given number successively.

- **Example:** 568 = 5+6+8 = 19, 1 + 9 = 10.

Note: if any number multiplied by 9, then the digital sum is always 9.

- **Example:** 6 × 9 = 54, 5+4 = 9

Trick: In order to save time if we find digit 9 or multiples of 9, then 9 or its multiple can be neglected.

- **Example:** 293 = 2 + 9 + 3 = 2 + 3 = 5 ['9' is omitted]

'9' is omitted to reduce the calculation.
If we don't omit '9', then also the digital sum remains same.
Example: 293 = 2 + 9 + 3 = 14, 1 + 4 = 5 [answer remains same]
Let's discuss one more example-

Example: 326 × 890 =?

a. 291140
b. 290100
c. 290140
d. 293990
Sol: We can find out the answer by option method without doing multiplication. This is only possible with the help of Digital sum.

Now, Digital sum, 326 × 890 = (3 + 2 +6) × (8 +9 + 0)
⇒ 11 × 17
⇒ (1+1) × (1+7)
⇒ 2 × 8 = 16
⇒ digital sum (16) = 7
Now find out the digital sum of the given options-

1. DS (291140) = 8
2. DS (290100) = 3
3. DS (290140) = 7
4. DS (293990) = 5

Option C has the same digital sum as '7' as we have already found out. Thus the correct option is C.