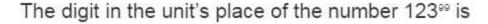
# Number System Questions and Answers for Bank Exams

### Question: 1



- (A) 1
- (B) 2
- (C) 3
- (D) 7

Ans: D

3<sup>e</sup> gives unit digit 1.

So, (34)24 gives unit digit 1.

And, 3<sup>2</sup> gives unit digit 7.

 $\therefore 3^{55} = (3^4)^{24} \times 3^3$  gives unit digit (1 x 7) i.e. 7.

### Question: 2

If n be any natural number then by which largest number  $(n^3 - n)$  is always divisible?

- (A) 3
- (B) 6
- (C) 12
- (D) 18

Ans: B

 $(1^3 - 1) = 0$ ,  $(2^3 - 2) = 6$ ,  $(3^3 - 3) = 24$ ,  $(4^3 - 4) = 60$  and so on, each one of which is divisible by 6.

### Question: 3

The sum of four consecutive even numbers A, B, C and D is 180. What is the sum of the set of next four consecutive even numbers?

- (A) 169
- (B) 204
- (C) 212
- (D) 214

Ans: C

Let the four consecutive even numbers be a, a + 2, a + 4 and a + 6.

Then, 
$$a + a + 2 + a + 4 + a + 6 = 180 \Rightarrow 4a = 168 \Rightarrow a = 42$$
.

So, these numbers are 42, 44, 46 and 48.

Sum of next four consecutive even numbers = (50 + 52 + 54 + 56) = 212.

## Question: 4

$$106 \times 106 - 94 \times 94 = ?$$

- (A) 1904
- (B) 1906
- (C) 2200
- (D) 2400

Ans: D

 $(106 \times 106 - 94 \times 94)$ 

$$= (106)^2 - (94)^2 = (106 + 94) (106 - 94) = (200 \times 12) = 2400.$$

### Question: 5

$$(24 + 25 + 26)^2 - (10 + 20 + 25)^2 = ?$$

- (A) 352
- (B) 752
- (C) 2600
- (D) 2800

Ans: C

$$(24 + 25 + 26)^2 - (10 + 20 + 25)^2 = (75)^2 - (55)^2$$
  
=  $(75 + 55)(75 - 55) = (130 \times 20) = 2600$ .

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