

## (Olympiad Champs Question)

# Roman Numerals

## Multiple Choice Questions

## **CHALLENGE A**

Directions (Qs. 1 to 8): Give the Arabic representation for the following numerals.


















**Directions (Qs. 9 to 11): Complete the series.**





- 11.** L. LX. LXX. \_\_\_\_\_, XC  
(a) LXXX (b) C  
(c) b (d) M

**Directions (Qs. 12 to 15): Choose the Roman representation for**



- 13.** 1000  
(a) L (b) C  
(c) D (d) M

## CHALLENGE B

- 18.** Match the following:

	List I		List II
A.	8	1.	16
B.	LX	2.	VIII
C.	XVI	3.	LXXX
D.	80	4.	60

- |     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 1 | 2 | 3 | 4 |
| (b) | 2 | 3 | 4 | 1 |
| (c) | 2 | 4 | 1 | 3 |
| (d) | 3 | 2 | 4 | 1 |

**Directions (Qs. 19 and 20): Fill in the blanks:**

19. \_\_\_\_\_ means 4 but VI means 20. \_\_\_\_\_



- 25.** What will be the outcome for the given diagram?

$$\begin{array}{c} x \\ + \\ \text{IV} \\ + \\ \text{I} - \text{II} = ? \end{array}$$







## Solutions with Explanation

## CHALLENGE A

- 1.** (b)  $\text{XI} = 10 + 1 = 11$

**2.** (d)  $\text{IV} = 5 - 1 = 4$

**3.** (a)  $\text{XXIII} = 10 * 10 + 1 + 1 + 1 = 23$

**4.** (b)

**5.** (0)

**6.** (c)

**7.** (c)

**8.** (a)  $\text{XD} = 500 - 10 = 490$

**9.** (b) There is difference of one.

**10.** (b) There is difference of five.

**11.** (a) There is difference of ten.

**12.** (d)

**13.** (d)

**14.** (.)

**15.** M

**16.** (c) It cannot be the representation of any number.

**17.** (c) The series is with the difference of 2, so It will be 19. 21. 23 and 25.

**CHALLENGE B**

**18.** (c)

**19.** (b)

**20.** (d)

**21.** (d)

**22.** (b)

**23.** (a)  $[15 - 5 = 10]$

**24.** (c)  $[10 + 30 = 40]$

**25.** (c)  $[10 + 4 + 1 = 15 - 2 = 13]$

## **CHALLENGE B**

- 26.** (c) [D = 500, XL = 40. V = 5 so  $500 + 40 + 5 = 545$ ]
- 27.** (d) C = 100 and M = 1000 > 100
- 28.** (c) L = 50, C = 100. 0 = 500, M = 1000
- 29.** (b) We have 32 teeth.
- 30.** (c)  $[50 + 20 + 10 + 6 = 86]$
- 31.** (c)
- 32.** (a)
- 33.** (d)
- 34.** (c)  $10 + 20 = 30$
- 35.** (d)  $20 + 50 = 70$
- 36.** (b)  $50 + 10 + 5 = 65$
- 37.** (a)  $13 + 5 = 18$
- 38.** (a)  $[10 + 8 = 18]$
- 39.** (d)  $[100 - (9 + 5 + 50) = 100 - 64 = 36]$
- 40.** (b) [C=100,L=50,100/50=2]
- 41.** (b)  $[50 \times 2 = 100 = \text{C pencils are required}]$
- 42.** (c) [L = 50, LX = 60, C = 100, XXX = 30]
- 43.** (a) [40 is greater than 30]
- 44.** (a)  $[M = 1000, X = 10, V = 5 \text{ so } 1000 + 100 + 10 + 5 = 2015]$
- 45.**  $[1000 + 900 + 50 + 5 = 1955]$
- 46.** (a)
- 47.** (a) In Roman system, there is no symbol for zero. Thus, they did not use place value system.
- 48.** (b) Repetition of Roman numerals means addition but numerals like V, L and D cannot be repeated.
- 49.** (c) Roman numerals can be repeated thrice.
- 50.** (b) When the smaller symbol is placed on left of the bigger symbol than we subtract but V, L and D are never subtracted.
- 51.** (c) V, L and D cannot be repeated.
- 52.** (d) Roman numerals I, X, C are used for both addition and subtraction.
- 53.** (b)  $(L = 50) + (XX = 20) + (V = 5)$   
 $\Rightarrow 50 + 20 + 5 = 75$
- 54.** (c)  $(CM = 900) + (LXXX = 80) + (II = 2)$   
 $\Rightarrow 900 + 80 + 2$   
 $CMLXXXII = 982$
- 55.** (d) MCDXIV  
 $(M = 1000) + (CD = 400) + (XIV = 14)$   
 $\Rightarrow 1000 + 400 + 14$   
 $\Rightarrow 1414 = \text{MCDXIV}$
- 56.** (a) 3390  
 $\Rightarrow 3000 + 300 + 90$   
 $(3000 = \text{MMM}) + (300 = \text{CCC}) + (90 = \text{XC})$   
 $\text{MMMCCCXC}$
- 57.** (a) 1296  
 $1000 + 200 + 90 + 6$   
 $(1000 = \text{M}) + (200 = \text{CC}) + (90 = \text{XC}) + (6 = \text{VI})$   
 $\text{MCCXCVI}$
- 58.** (d) XXXXIX is meaningless as no number can be repeated more than 3 times.
- 59.** (c) XC is a meaningful Roman numeral V, L, D are never subtracted thus option a, b, d are meaningless.
- 60.** (b) CCM = 800  
 $800 = \text{LXXX}$   
 $IV = 4$   
 $CCM + LXXX + IV$   
 $800 + 80 + 4 = 884$
- 61.** (b)  $(M = 1000) + (CCC = 300) + 44 = 1344$   
 $\Rightarrow 44 = \text{XLIV}$

**62.** (b)

**63.** (c)

**64.** (b)

**65.** (a)

**66.** (c)

**67.** (b)

**68.** (d)

**69.** (d)

**70.** (a)