( Children you have to write all these notes in your class work copy)

## Ch-2 Roman Numerals

## Points to Remember:-

1) The Hindu-Arabic numeration system uses 10 digits $0,1,2,3,4,5,6,7,8$ and 9 to write any numeral.
2) The Roman numeral uses 7 basic symbols to write any number. These symbols are $\mathrm{I}, \mathrm{V}, \mathrm{X}, \mathrm{L}, \mathrm{C}, \mathrm{D}$ and M .
3) There is no symbol for zero in the Roman system.
4) Roman numerals are used in analogue clocks and watches, to name the classrooms in the schools etc.
5) Same symbol should not repeat more than 3 times together.
6) Symbols V , L and D are never repeated and never subtracted.
7) Symbol I can be subtracted only once.

The table given below shows the Roman numerals with their respective HinduArabic numerals are as follows:-

| Roman Numerals | I | V | X | L | C | D | M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hindu-Arabic Numerals | 1 | 5 | 10 | 50 | 100 | 500 | 1000 |

## Self Practice 2

1. Write the Hindu-Arabic numerals for each Roman numeral.
(a) IX
(b) XX
(c) XII
(d) VII
(e) XXXVII
(f) XXIX
(g) XXVIII
(h) XXXIV

## Solution1:-

(a) $\mathrm{IX}=10-1=9$
(b) $\mathrm{XX}=10+10=20$
(e) $\mathrm{XXXVII}=10+10+10+5+2$

$$
=30+7=37
$$

(f) $\mathrm{XXIX}=10+10+(10-1)$

$$
=20+9=29
$$

(g) XXVIII $=10+10+5+3$

$$
=20+8=28
$$

2. Write the Roman numerals for each of the following Hindu-Arabic numerals.
(a) 2
(b) 4
(c) 16
(d) 32
(e) 27
(f) 36
(g) 19
(h) 39

Solution 2:-
(a) $2=\mathrm{I}+\mathrm{I}=\mathrm{II}$
(c) $16=10+6=\mathrm{X}+\mathrm{VI}=\mathrm{XVI}$
(d) $32=30+2=\mathrm{XXX}+\mathrm{II}=$ XXXII

## H.W

(b), (e),(f) and (h) are homework
(g) $19=10+9=\mathrm{X}+\mathrm{IX}=\mathrm{XIX}$
3. Fill in the boxes by using $>,<$ or $=$ symbol to make a correct sentence.
(a) XII $\square$ 13
(b) XXIX $\square$ 29
(c) XXV
(d) XXII $\square$ 19
(e) XXXVI $\square$ 33
(f) XXXI $\square$ 32

## Solution 3:-

(a)
$\qquad$ 13
(b) XXIX
29
$\qquad$ 29
(c) XXV $\qquad$ 26
25
(d), (e) and (f) are homework

Q4. Which of the following Roman numerals are meaningless?
(a) XXXVIII
(b) VXX
(c) IIX
(d) XXVII
(e) VX
(g) VV
(h) XIX
(f) VVVX

## Solution4:-

(a) XXXVIII
(b) VXX
(c) IIX
(d) XXVII
H.W
(e), (f), (g) and (h) are homework

Q5. Write the correct Roman numerals on the dial of the clock given alongside.

Solution5:- This question is homework .
Do it in your book.

6. Write the predecessor of the following in Roman numerals.
(a) XXIV
(b) XXX

## Solution 6:-

(a) $\mathrm{XXIV}=24$

Predecessor $=$ given number -1

$$
\begin{aligned}
& =24-1 \\
& =23
\end{aligned}
$$

Therefore, the answer is $23=$ XXIII
7. Write the successor of the following in Roman numerals.
(a) XXXVIII
(b) XIV

## Solution 7:-

(b) $\mathrm{XIV}=14$

Successor $=$ given number +1

$$
\begin{aligned}
& =14+1 \\
& =15
\end{aligned}
$$

Therefore , the answer is $15=\mathrm{XV}$

