

Name:- S. Kalesha Analytical Problems.

RegNo:- 19211117 Decimal to Hexadecimal.

(1) $(2020)_{10} \rightarrow (7E4)_{16}$ (2) $(2020.65625)_{10} \rightarrow (7E.A8)_{16}$

$$\begin{array}{r} 16 \overline{) 2020} \\ 16 \overline{) 126} - 4 \\ \hline 7 - 14 \end{array}$$

$$\Rightarrow (7E4)_{16}$$

$$\begin{array}{r} 16 \overline{) 2020} \\ 16 \overline{) 126} - 4 \\ \hline 7 - 14 \end{array} \quad \begin{array}{l} 0.65625 \times 16 = 10.5 \\ 0.5 \times 16 = 8 \end{array}$$

7E

A8

$$\Rightarrow (7E.A8)_{16}$$

(3) $(172)_{10} \rightarrow (AC)_{16}$ (4) $(172.983)_{10} \rightarrow (AC.FB)_{16}$

$$\begin{array}{r} 16 \overline{) 172} \\ 16 - 12 \end{array}$$

$$\Rightarrow (AC)_{16}$$

$$\begin{array}{r} 16 \overline{) 172} \\ 16 - 12 \end{array} \quad \begin{array}{l} 0.983 \times 16 = 15.7 \\ 0.7 \times 16 = 11.2 \\ 0.2 \times 16 = 3.2 \end{array}$$

(AC)

0.7 × 16 = 11.2

0.2 × 16 = 3.2

FB

$$\Rightarrow (AC.FB)_{16}$$

(4) $(49)_{10} \rightarrow (31)_{16}$ (5) $(122810)_{10} \rightarrow (1BFB A)_{16}$

$$\begin{array}{r} 16 \overline{) 49} \\ 3 - 1 \end{array}$$

= 31

$$\Rightarrow (31)_{16}$$

$$\begin{array}{r} 16 \overline{) 122810} \\ 16 \overline{) 7675} - 10 \\ 16 \overline{) 479} - 11 \\ 16 \overline{) 29} - 15 \\ \hline 1 - B \end{array}$$

$$\Rightarrow (1BFB A)_{16}$$

$$(6) (60010)_{10} \rightarrow ()_{16}$$

$$\begin{array}{r} 16 \overline{) 60010} \\ 16 \overline{) 3750} - 10 \\ 16 \overline{) 234} - 6 \\ 14 - 10 \end{array}$$

$$\Rightarrow (E A 6 A)_{16}$$

$$(7) (1542)_{10} \rightarrow ()_{16}$$

$$\begin{array}{r} 16 \overline{) 1542} \\ 16 \overline{) 96} - 6 \\ 6 - 0 \end{array}$$

$$\Rightarrow (606)_{16}$$

$$(8) (1175)_{10} \rightarrow ()_{16}$$

$$\begin{array}{r} 16 \overline{) 1175} \\ 16 - 15 \end{array}$$

$$\Rightarrow (A F)_{16}$$

$$(9) (105)_{10} \rightarrow ()_{16}$$

$$\begin{array}{r} 16 \overline{) 105} \\ 16 - 9 \end{array}$$

$$\Rightarrow (69)_{16}$$

$$(10) (450)_{10} \rightarrow ()_{16}$$

$$\begin{array}{r} 16 \overline{) 450} \\ 16 \overline{) 28} - 2 \\ 1 - 12 \end{array}$$

$$\Rightarrow (1 C 2)_{16}$$

$$(11) (199)_{10} \rightarrow ()_{16}$$

$$\begin{array}{r} 16 \overline{) 199} \\ 16 \overline{) 12} - 7 \\ C \end{array}$$

$$\Rightarrow (C7)_{16}$$

$$(12) (3000)_{10} \rightarrow ()_{16}$$

$$\begin{array}{r} 16 \overline{) 3000} \\ 16 \overline{) 187} - 8 \\ 11 - 11 \end{array}$$

$$\Rightarrow (B B 8)_{16}$$

$$(13) \text{ Convert Base 10 to Base 8}$$

$$\begin{array}{r} 8 \overline{) 1032} \\ 8 \overline{) 129} - 0 \\ 8 \overline{) 16} - 1 \\ 2 - 0 \end{array}$$

$$\Rightarrow (2010)_8$$

$$(14) (1032.6875)_{10} \rightarrow ()_8$$

$$\begin{array}{r} 8 \overline{) 1032} \\ 8 \overline{) 129} - 6 \\ 8 \overline{) 46} - 1 \\ 2 - 0 \end{array} \quad \begin{array}{l} 0.6875 \times 8 = 5.4 \\ 0.5 \times 8 = 4 \\ 54 \end{array}$$

$$\Rightarrow (2010.54)_8$$

$$(15) (172)_{10} \rightarrow ()_8$$

$$\begin{array}{r} 8 \overline{) 172} \\ 8 \overline{) 21} - 4 \\ 2 - 5 \end{array}$$

$$\Rightarrow (172)_{10} \rightarrow (254)_8$$

$$(16) (172.878)_{10} \rightarrow ()_8$$

$$\begin{array}{r} 8 \overline{) 172} \\ 8 \overline{) 21} - 4 \\ 2 - 5 \end{array} \quad \begin{array}{l} 0.878 \times 8 = 7.0 \\ 7.0 \end{array}$$

$$\Rightarrow (254.7)_8$$

$$(17) (127)_{10} \rightarrow ()_8$$

$$\begin{array}{r} 8 \overline{) 127} \\ 8 \overline{) 15} - 7 \\ 1 - 7 \end{array}$$

$$= 177$$

$$\Rightarrow (127)_{10} \rightarrow (177)_8$$

IP address Identification:-

(1) 10.250.1.1 \rightarrow Belongs to Class A.

(2) 193.42.1.1 \rightarrow Belongs to Class B.

(3) 249.240.80.78 \rightarrow Belongs to Class C.

(4) 215.45.45.0 \rightarrow Belongs to Class C.

(5) 33.0.0.0 \rightarrow Belongs to Class A.

(6) 158.98.80.0 \rightarrow Belongs to Class B.