

Time Division Multiplexing Formula

a) Input Bit Duration = $\frac{1}{\text{input bit rate}}$

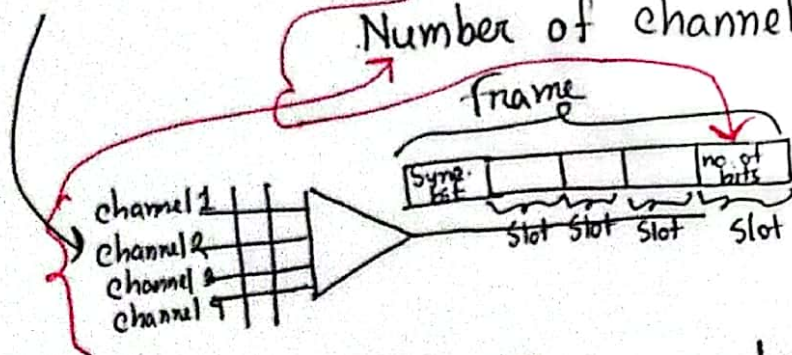
b) Input Slot Duration = $\frac{1}{\text{input bit rate}} \times n$
[n = no. of bits per slot]

c) Frame Duration = Input Slot Duration

d) Output Slot Duration = $\frac{\text{Frame Duration}}{n}$
[n = no. of channels]

e) Frame rate = $\frac{1}{\text{Frame Duration}}$

f) Frame Size = [Number of bits per slot × Number of channels] + (Synchronization - bits) if any



g) Output bit rate = Frame rate × Frame Size

h) Output bit duration = $\frac{1}{\text{Output bit rate}}$

or
$$= \frac{\text{Frame Duration}}{\text{Frame Size}}$$

