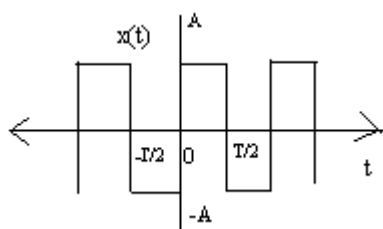


Haldia Institute of Technology	
Subject:-B.Tech in ECE	
Assignment – II	3 rd sem.
Paper Name: SIGNALS AND SYSTEMS	Paper Code: EC303

1. Derive the expression for exponential Fourier Series from Trigonometric the Fourier Series . [CO4]
2. Find the Fourier Series of the signal given below and draw the line spectrum.



[CO4]

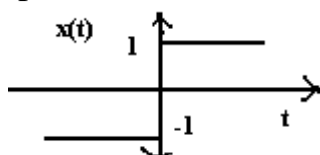
3. Briefly discuss different types of symmetry condition in Fourier series with suitable examples. [CO4]
4. Find the trigonometric Fourier series for the periodic wave

$$x(t) = \begin{cases} 1 - t; 0 < t < 1 \\ t - 1; 1 < t < 2 \end{cases}$$

[CO4]

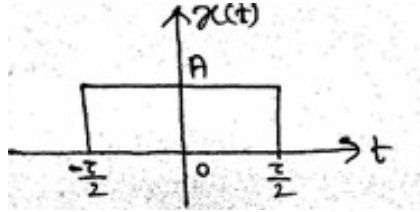
5. State and prove the Frequency shifting property of Fourier transform . [CO4]

6. Find Fourier Transform of i)signum(t) ii) u(t) and show magnitude and phase spectrum of both.



[CO4]

7. Find the Fourier transform and plot the Magnitude spectrum of waveform.



[CO4]

8. Find the Fourier Transform of unit impulse train.

[CO4]

9. Find the Fourier Transform of $x(t) = e^{-at} \cos(\omega_c t) u(t)$.

[CO4]