

Assignment - V

Class	:	II/IV B.Tech II-Semester
Subject	:	EC 225 - Signals & Systems (Common for ECE, EIE and EEE)
Assignment to be submitted on : 10.02.2014		

1) Prove the following properties of the Fourier transform

- i) Time Scaling
- ii) Time differentiation
- iii) Convolution property
- iv) Time integration
- v) Differentiation in frequency domain

2) Find the Fourier transform of the following signals

- i) $e^{-|t|}$ ii) $u(t)$ iii) $e^{-t} \sin 5t u(t)$

3) Evaluate the Fourier transform of the functions shown in following figures

