Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

Synoptic for Mid Semester Examination

September 2018

Max. Marks: 20 Duration: 60 Min

Class: B.E. Semester: VII

Course Code:CPC701 Branch: Computer Engineering

Name of the Course: Digital Signal Processing

Instruction:

(1) All questions are compulsory

(2) Draw neat diagrams

(3) Assume suitable data if necessary

Q No.		Max. Marks	CO
Q.1	i)Defining the unit sample signal = 0.5M Graphical representation/sketch of the unit sample signal = 0.5M ii)Defining the unit step signal = 1M Graphical representation/sketch of the unit step signal = 1M iii)Defining the unit ramp signal = 1M Graphical representation/sketch of the unit ramp signal = 1M	05	CO1
Q.2	1. Plotting given sequences = 1M (0.5 each) 2. Listing the steps = 1M (Folding, Shifting, Multiplication and Summation) 3. Finding length of y(n) = 0.5M 4. Finding the convolution sum y(n) = 2.5M(5 values for each value 0.5M)	05	CO2
Q.3	Definition of discrete time system with block diagram–[1M] Each example carries 2 marks. y'=[1M]. y"=[1M] **OR** Correct Steps for linearity–[1M] Each example carries 2 marks. Each correct step carries 1 mark.	05 05	CO2 CO2
Q.4	1. Equation / Matrix of DFT = 1M 2. Determining values of DFT signal X(K) = 3M 3. Correct answer = 1M (0.25 for each correct value)	05	CO3