

CODE: 17CD02107

M. Tech I Year I Semester Supplementary Examinations, May 2018
ADVANCED DIGITAL SIGNAL PROCESSING
(PE & D)

Time : 3 hours

Max Marks : 60

Answer all **five** units. (5 x 12 = 60 Marks)

UNIT-I

1. Explain about classification of discrete time systems with examples.

OR

2. Develop the DIT F FFT algorithm with neat sketch for N=8

UNIT-II

3. Explain computation of the convolution sum of finite –length sequences with example.

OR

4. Explain the basic FIR and IIR Digital Filter structures with example.

UNIT-III

5. Apply bilinear transformation to $H(s) = \frac{2}{(s+1)(s+2)}$ with $T = 1$ sec and find $H(z)$

OR

6. Discuss about IIR filter design using Bilinear transformation method.

UNIT-IV

7. Design a digital FIR band pass filter with lower cut-off frequency 2000 Hz and upper cut off frequency 3200 Hz using rectangular window of length N=7. Sampling rate is 10000 Hz.

OR

8. Explain design of Equi ripple linear phase and minimum phase FIR filters.

UNIT-V

9. Explain about basic sampling rate conversion devices.

OR

10. Explain the concept of quantization of Fixed and floating point numbers.
