PVP 12

Code: **ECMC2T6A**

I M.Tech-II Semester-Regular Examinations-August 2014

TRANSFORM TECHNIQUES

(MICROWAVE & COMMUNICATION ENGINEERING)

Duration: 3 hours Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1 a) Clearly distinguish The Fourier Transform, Discrete Fourier Transform and Discrete Cosine Transform. 7 M

b) What is the importance of Haar Transform? Explain with a suitable example. 7 M

2 a) What is the reason for Gibbs oscillations? Explain the Gibbs Phenomenon. 7 M

b) What is STFT? List various applications. 7 M

3 a) What is decomposition? Explain about semiorthogonal decomposition. 7 M

b) Write short notes on spline functions. 7 M

4 a) What is the need of wavelet? Explain. 7 M

b) How to construct Bioorthogonal wavelets? Explain. 7 M

5 a) Write short notes on wavelet decomposition algorithm. 7 M

b) What are comments on DWT and PR filter banks? Explain. 7 M

6 a) What is Thresholding? Explain about hard and soft Thresholding. 7 M

b) Explain about Microcalcification cluster Detection. 7 M

7 Explain about Mathematical preliminaries for polyphase Factorization. 14 M

8 Write short notes on Ridgelets and curvelets. 14 M