GUJARAT TECHNOLOGICAL UNIVERSITY ME – SEMESTER-1 (NEW) EXAMINATION – WINTER 2016

Subject Code: 2712606 Subject Name: Wavelet Transform and Applications			Date:06/01/2017	
Time: 2:30 pm to 5:00 pm Instructions:			Total Marks: 70	
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a)	Define CWT as an Operator. Explain properties of CWT	using the 07	
	(b)	What is the difference between Fourier transform and transform? Define wavelet transform briefly (with mat condition/properties).	wavelet 07 hematical	
Q.2	(a)	Explain in detail construction of general ortho-normal MI scaling function and subspaces.	RA using 07	
	(b)	Explain inverse CWT.	07	
	(b)	OR What is MRA? Explain with example.	07	
Q.3	(a)	Explain Bases for the Detail Subspaces and Haar wavelet.	07	
	(b)	Explain basis functions for the DTWT.	07	
0.3	(a)	Explain Haar wavelet packet transform and its application.	07	
<u></u>	(b)	Give brief introduction about video coding using multi-techniques.	resolution 07	
Q.4	(a)	Explain filtering relationship for bi-orthogonal filters.	07	
-	(b)	Explain audio compression.	07	
04	(a)	OR Explain bi orthogonal scaling functions and wavalets using av	amples 07	
Q.4	(a) (b)	Explain Ridgelet transform.	07 07	
Q.5	(a)	What is Digital curvelet transform? Give its properties.	07	
_	(b)	Explain non-separable multi-dimensional wavelets. OR	07	
Q.5	(a)	Give applications of wavelet transform.	07	
	(b)	List out Applications of Ridgelet transform. Explain any one in det	ail. 07	
