



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India
(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination

September 2019

Max. Marks: 20

Class: B.E.

Course Code: IT71

Name of the Course: Digital Image Processing

Duration: 1 Hour

Semester: VII

Branch: Information Technology

Date: 16/09/2019

Time: 2:00PM to 3:00PM

Instruction:

- (1) All questions are compulsory
- (2) Draw neat diagrams
- (3) Assume suitable data if necessary

Q No.		Max. Marks	CO	BL																
Q.1	How Smoothing and Sharpening improves and enhance the quality of Images, Justify.	06	CO1	BL4																
Q.2	Generate the Walsh Transform Matrix and compute Walsh transform of the given Image <table border="1"><tr><td>2</td><td>1</td><td>2</td><td>1</td></tr><tr><td>1</td><td>2</td><td>3</td><td>2</td></tr><tr><td>2</td><td>3</td><td>4</td><td>3</td></tr><tr><td>1</td><td>2</td><td>3</td><td>2</td></tr></table> <p>OR</p> <p>Generate a Discrete Cosine Transform Matrix for N=4.</p>	2	1	2	1	1	2	3	2	2	3	4	3	1	2	3	2	06	CO2	BL3
2	1	2	1																	
1	2	3	2																	
2	3	4	3																	
1	2	3	2																	
Q.3	Prove that High Pass: Original – Low Pass.	04	CO1	BL2																
Q.4	Analyze the Impact of Opening and Closing operations on the Images. What is the use of Hit or Miss transform.	04	CO1	BL4																