

Enrollment No: \_\_\_\_\_

Exam Seat No: \_\_\_\_\_

# C.U.SHAH UNIVERSITY

## Summer Examination-2016

**Subject Name : Digital Image Processing & Multimedia**

**Subject Code : 4CS04IIM1**

**Branch: B.Sc.IT**

**Semester : 4**

**Date : 07/05/2016**

**Time : 02:30 To 05:30**

**Marks : 70**

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
  - (2) Instructions written on main answer book are strictly to be obeyed.
  - (3) Draw neat diagrams and figures (if necessary) at right places.
  - (4) Assume suitable data if needed.
- 

**Q-1 Attempt following.**

**(14)**

- a) What is digital image processing?
- b) What is image transform?
- c) What is clipping?
- d) What is inverse filtering?
- e) What is image data compression?
- f) What is Thresholding?
- g) Define histogram.
- h) Define Image enhancement.
- i) List out any four transform.
- j) What is sampling rate?
- k) Define : image analysis.
- l) Define : Image reconstruction.
- m) What is wiener filter?
- n) What is KL transform?

**Attempt any FOUR questions from following.**

**Q-2**

**Attempt following.**

**14**

- a) Explain properties of 2D-fourier Transform. 5
- b) Explain Slant Transform. 5
- c) Write a short note on KL Transform. 4

**Q-3**

**Attempt following.**

**14**

- a) Explain Haar Transform. 5
- b) Explain Histogram processing/modeling. 5
- c) Write a short note on color image processing. 4



<b>Q-4</b>	<b>Attempt following.</b>	<b>14</b>
	a) Describe Lossy compression.	5
	b) Write a note on: Image compression standards	5
	c) Explain error free compression.	4
<b>Q-5</b>	<b>Attempt following.</b>	<b>14</b>
	a) Describe various scheme for image representation	5
	b) Explain boundary descriptors for image segmentation.	5
	c) Write a short note on auditory I/O standards and techniques.	4
<b>Q-6</b>	<b>Attempt following.</b>	<b>14</b>
	a) Explain Least square filters.	7
	b) Describe image filtering and image restoration	7
<b>Q-7</b>	<b>Attempt following.</b>	<b>14</b>
	a) Explain inverse and wiener filtering process.	7
	b) Write a note on: Authoring tools for multimedia system.	7
<b>Q-8</b>	<b>Attempt following.</b>	<b>14</b>
	a) Explain spatial filtering.	7
	b) Describe region oriented segmentation.	7

