

Enrollment No:- _____

Exam Seat No:- _____

C.U.SHAH UNIVERSITY

Summer-2015

Subject Code: 4CS04BIM1 Subject Name: Digital Image Processing & Multimedia

Course Name: B.C.A.

Date: 16/5/2015

Semester:IV

Marks:70

Time:10:30 TO 01:30

Instructions:

- 1) Attempt all Questions of both sections in same answer book/Supplementary.
 - 2) Use of Programmable calculator & any other electronic instrument prohibited.
 - 3) Instructions written on main answer book are strictly to be obeyed.
 - 4) Draw neat diagrams & figures (if necessary) at right places.
 - 5) Assume suitable & perfect data if needed.
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SECTION-I

- Q1. Attempt following. (7)
1. What is digital image processing? (1)
 2. What do you mean by image enhancement? (1)
 3. What is thresholding function? (1)
 4. What is histogram? (2)
 5. What is data redundancy? (1)
 6. What do you mean by authoring tools in multimedia? (1)
- Q2. Attempt following.
1. What are the applications of digital image processing? (5)
 2. Explain image digitization. (5)
 3. Explain KL transform and its properties in detail. (4)
- OR
- Q2. Attempt following.
1. Explain fourier transform and its properties in detail. (5)
 2. What are the steps of digital image processing? Discuss. (5)
 3. What are the geometric transformations ?Describe briefly. (4)
- Q3. Attempt following.
1. Explain image enhancement by point processing. (5)
 2. What is spatial filtering? Explain linear filters in detail. (5)
 3. Write a short note on color image processing (4)
- OR
- Q3. Attempt following.
1. What is spatial filtering? Explain non-linear filters in detail. (5)
 2. Explain low pass filtering. (5)
 3. How many types of basic histograms ? Describe in brief. (4)



SECTION-II

- Q1. Attempt following. (7)
1. What do you mean by correlation? (1)
 2. What is transform? (1)
 3. What is filtering? (1)
 4. Why we don't use quantizer in error free compression? (2)
 5. What is edge linking? (1)
 6. What is image segmentation? (1)
- Q2. Attempt following.
1. What is image restoration? Explain image restoration techniques. (5)
 2. What are color models present in image processing? Explain. (5)
 3. Write a short note on image reconstruction from projections. (4)

OR

- Q2. Attempt following.
1. Explain image compression. (5)
 2. Explain region oriented segmentation. (5)
 3. Write down the steps of project design in multimedia. (4)
- Q3. Attempt following.
1. What is multimedia? Explain authoring tools in multimedia. (5)
 1. Explain detection of discontinuity process in image segmentation. (5)
 2. Write a short note on image representation. (4)

OR

- Q3. Attempt following.
1. Explain input and output devices used in multimedia system. (5)
 2. What are the applications of multimedia? Describe. (5)
 3. Write a short note on image descriptions. (4)

