USN [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] **13MCA543**

Fifth Semester MCA Degree Examination, Dec.2016/Jan.2017
Multimedia Systems

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions.*

1 a. Describe the data elements for multimedia systems.   **(10 Marks)**
   b. Explain the key properties of multimedia systems.   **(05 Marks)**
   c. List out different classification of media.   **(05 Marks)**

2 a. Describe various aspects of characterizing continuous media streams.   **(10 Marks)**
   b. Explain the process of speech recognition with the help of a neat diagram. **(05 Marks)**
   c. Draw the components of a speech synthesis system. Describe the process briefly. **(05 Marks)**

3 a. What are the various properties of an image? Explain them.   **(10 Marks)**
   b. What are the techniques available to control animation? Explain any three. **(10 Marks)**

4 a. Explain the several color encoding techniques used in video system.   **(10 Marks)**
   b. List the different methods of specification of animation. Explain them briefly. **(10 Marks)**

5 a. List all the basic compression techniques and explain any two.   **(10 Marks)**
   b. Describe I, P, B and D types of frames in MPEG system.   **(10 Marks)**

6 a. What is the basic technology used in optical disc? Explain with a neat sectional view.
                                                                                  (10 Marks)
   b. Write a note on: (with respect to Compact Disc Digital Audio)
      (i)   Eighteen-to-Fourteen modulation.
      (ii)   Error handling.   **(05 Marks)**
   c. Discuss the limitations of CD-ROM technology.   **(05 Marks)**

7 a. Explain the methods of analyzing image sequences in motion vectors.   **(10 Marks)**
   b. Discuss the salient features of TIFF file format.   **(10 Marks)**

8 a. Explain the various issues of virtual reality design considerations.   **(10 Marks)**
   b. Describe, how multimedia databases are organized.   **(10 Marks)**

* * * * *