END TERM EXAMINATION

FOURTH SEMESTER [B.TECH.] MAY- JUNE 2018

Paper Code: IT-204   Subject: Multimedia Applications

Time: 3 Hours   Maximum Marks: 75

Note: Attempt any five questions including Q.No 1 which is compulsory.

Q1   (a) What is DCT? Explain its role in JPEG.   (5x5=25)
      (b) Discuss MPEG-1 and MPEG-2.
      (c) Explain the concept of dictionary based compression technique.
      (d) Explain the concept of Graph editor?
      (e) Discuss the concept of transform encoding.

Q2   (a) Explain RAID storage technique.   (6.5)
      (b) Explain various software and hardware tools used in multimedia.   (6)

Q3   (a) Define multimedia? Explain different multimedia applications.   (6)
      (b) What is authoring a tool? Explain different tools.   (6.5)

Q4   Consider transmission of message "Went" using arithmetic coding. Comprising a string of characters with probability of the characters e=0.3, n=0.3, t=0.2, w=0.1 and '.'=0.1.   (12.5)

Q5   A text mede up of characters a, b, c, d and e with frequencies 8,4,2,1 and 1 respectively. What will be the average length of code and entropy using Huffman coding.   (12.5)

Q6   Define animation? Explain different animation techniques used in software "Maya".   (12.5)

Q7   (a) Explain different types of frames used in MPEG. Explain its role. (8)
      (b) What is the difference between Animation, video and morphing. (4.5)

Q8   (a) Differentiate NURBS and polygonal modeling.   (8)
      (b) What is rigid body dynamics? Explain its role in animation   (4.5)

Q9   Write about the following:-   (12.5)
      (a) IPR rendering
      (b) Run length encoding
      (c) Quantization
      (d) MIDI