Code No: R05410507 **Set No. 1**

IV B.Tech I Semester Regular Examinations, November 2008
MULTIMEDIA AND APPLICATION DEVELOPMENT
(Common to Computer Science & Engineering, Information Technology and Computer Science & Systems Engineering)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Write in detail about color lookup tables.
   (b) Explain how to device a color look up table. [8+8]
2. (a) Draw a diagram showing a sinusoidal at 5.5 KHz and sampling at 8 KHz(show the 8 intervals between samples).
   (b) Draw the alias at 2.5 KHz and show that in the eight sample intervals, exactly 5.5 cycles of true signal fit into 2.5 cycles of the alias signal. [8+8]
3. Write a program in ACTION SCRIPT containing a method with variable number of arguments. [16]
4. What is reusability? How that is achieved? Give an example program in AS. [16]
5. (a) Explain about Creating Avatar Instances with an example?
   (b) Explain about how to handle Component events? [8+8]
6. (a) Give detailed description about lossless image compression?
   (b) Explain about successive approximation quantization? [8+8]
7. (a) Write the seven key elements in MPEG-21?
   (b) Write about Phase insensitivity of Vocodes? [8+8]
8. (a) Write short notes on RTSP(Real Time Streaming protocol)operations?
   (b) What is the importance of network layer in OSI Reference Model? [8+8]

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Code No: R05410507 **Set No. 2**

IV B.Tech I Semester Regular Examinations, November 2008
MULTIMEDIA AND APPLICATION DEVELOPMENT
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Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain the following:
   (a) Intensity Resolution
   (b) Spatial Resolution
   (c) Dithering
   (d) Halftone Printing. [4+4+4+4]
2. Write about the following:
   (a) PAL video
   (b) SECAM video
   (c) Chroma sub sampling. [5+5+6]
3. Write a program in ACTION SCRIPT for the class Box which contains three properties length, width, height and a method volume. Read 10 objects data and print their volumes. [16]
4. (a) Explain when to use composition over inheritance.
   (b) Explain the following briefly
      i. Is - A relation
      ii. Has - A relation
      iii. Uses - A relation. [10+6]
5. (a) Discuss about the Composition Based Avatar Class with an example?
   (b) Explain about the Basic Directory Structure. [8+8]
6. (a) Construct the coding tree for "WELCOME" using Shannon-Fano Algorithm and Huffman Coding.
   (b) Explain about 2D-Inverse Descrete cosine Transform? [10+6]
7. (a) Write some of the advantages of MPEG-2 compared with MPEG-1?
   (b) Explain MPEG-4 object types, profiles and levels? [8+8]
8. (a) What is the importance of RSVP (Resource Reservation Protocol) why we go for this?
   (b) Explain each and every layers of OSI Reference Model? [8+8]

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Code No: R05410507 **Set No. 3**

IV B.Tech I Semester Regular Examinations, November 2008
MULTIMEDIA AND APPLICATION DEVELOPMENT
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Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Explain the procedure to transform from RGB to CMY model.
   (b) Write about the RGB cube and CMY cube. [8+8]
2. Briefly explain the following:
   (a) Chroma signal
   (b) Quadrature signal
   (c) How Q signal can extracted from the NTSC chroma signal. [5+5+6]
3. What are the differences between multiple constructors and overloaded constructors? Give examples for each. [16]
4. Explain how to add resize the view region feature to ImageViewer class. [16]
5. (a) Explain about avatar class instance methods with examples.
   (b) Explain about the class constructor. [8+8]
6. (a) Explain SPIHT in detail?
   (b) Briefly discuss about Dictionary-Based coding? [10+6]
7. (a) Explain typical compression performance of MPEG-1?
   (b) Explain about G.726 ADPCM? [8+8]
8. (a) What is the main goal of AAL (ATM Adaptation layer)? List the AAL protocol types?
   (b) Compare and contrast between TCP and UDP protocol? [8+8]

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Code No: R05410507 **Set No. 4**

IV B.Tech I Semester Regular Examinations, November 2008
MULTIMEDIA AND APPLICATION DEVELOPMENT
(Common to Computer Science & Engineering, Information Technology and Computer Science & Systems Engineering)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. What is median-cut algorithm? Apply this for color look up table problem. [16]
2. (a) Draw and explain the schematic diagram of encoder for predictive coding.
   (b) Draw and explain the schematic diagram of decoder for predictive coding. [8+8]
3. Explain casting mechanism in ACTION SCRIPT. [16]
4. Write in detail about nested exceptions with an example. [16]
5. (a) Explain about avatar class instance methods and explain one method with example.
   (b) Explain about the class constructor.
   (c) Explain about currency converter application overview. [6+5+5]
6. (a) Compare zero tree data structure with successive approximation quantization.
   (b) Explain about LZW compression and decompression. [8+8]
7. (a) Explain motion compensation in MPEG-1?
   (b) Compare MELP (Multi band excitation) with LPC (linear Predictive coding) speech compression? [8+8]
8. (a) What is the use of checksum field in TCP/IP protocol?
   (b) Write short notes on stream merging? [8+8]

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