

Code No: **R4205B**

R10

Set No. 1

IV B.Tech II Semester Regular/Supplementary Examinations, April- 2015
MULTIMEDIA AND APPLICATION DEVELOPMENT
(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

- 1 Write short notes on the following?
 - a) Hypermedia and multimedia [5]
 - b) 8-bit gray level image [5]
 - c) Synchronized Multimedia Integration Language(SMIL) [5]

- 2 a) Write a short note on graphic and image data types. [8]
b) Write a short note on macromedia director file formats. [7]

- 3 Explain type casting mechanism in Action Script 2.0. [15]

- 4 a) Write about overloading of methods in Action Script 2.0? Give an example program. [8]
b) Can you overload constructor in Action Script 2.0? Explain. [7]

- 5 What is variable length encoding (VLC)? Explain Shannon-Fano algorithm in detail? [15]

- 6 a) Write a short note on lossless image compression. [8]
b) Explain in detail about Dictionary Based coding. [7]

- 7 Discuss the issues of VOP-based motion compensation in MPEG-4 in detail. [15]

- 8 a) Explain broad cast schemes for video on demand in detail. [8]
b) What is the main difference between the OSI and TCP/IP reference models? [7]

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Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
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- 1 a) How analog sound signal is converted to digital sound signal? Explain. [9]
b) Explain the following image data types.
i) 1-bit image ii) 24-Bit Color image iii) 8-Bit Gray level image [6]
- 2 Explain in detail different color models in images. [15]
- 3 a) Discuss the key object oriented programming concepts in Action Script 2.0. [8]
b) Write about Data types and type checking in Action Script 2.0. [7]
- 4 a) Briefly explain when to use composition over inheritance. [8]
b) Explain the following briefly
i). Is - A relation ii). Has - A relation iii). Uses - A relation [7]
- 5 a) Explain with examples 'how to structure an OOP flash application'. [8]
b) Explain in detail about how to improve the components package. [7]
- 6 a) Briefly explain basics of information theory. [8]
b) Write about lossless JPEG in detail. [7]
- 7 a) Write about Set Partitioning in Hierarchical Trees (SPIHT). [8]
b) Explain MPEG-2 Scalabilities. [7]
- 8 a) Explain Harmonic broad casting in detail. [8]
b) Explain OSI reference model with respective to multimedia communication. [7]

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Time : 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

- 1 a) Discuss various software tools available for graphics and image editing. [8]
b) Discuss any three novel applications of the internet and multimedia. [7]
- 2 Explain in detail different color models in video. [15]
- 3 a) Discuss how type casting is done in Action Script2.0. [8]
b) Write about the limitations of type casting in Action Script 2.0. [7]
- 4 a) What is inheritance? Discuss how to override methods and properties with suitable examples. [8]
b) Write about Action Script2.0's Exception handling cycle. [7]
- 5 Discuss an OOP application framework with the help of a currency conversion application. [15]
- 6 a) Compare and contrast lossless and lossy compression algorithms. [8]
b) What is differential coding? Explain differential coding of images with suitable examples. [7]
- 7 Write a note on digital video compression. Also explain MPEG motion video compression. How is it different from JPEG? [15]
- 8 Explain the following terms:
 - a) Real time –Transport Protocol(RTP) [5]
 - b) IP Multicasting [5]
 - c) Internet Telephony [5]

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Time : 3 hours

Max. Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

- 1 a) Write about multimedia authoring. [8]
b) What is MIDI? How is a basic MIDI message structured? [7]
- 2 a) Compare and contrast YIQ color model and Y Cb Cr color model. [8]
b) Explain different types of video signals. [7]
- 3 a) Briefly describe the main features of Action Script 2.0. [7]
b) What is circumventing type checking? Explain with the help of an example. [8]
- 4 a) Discuss how a class is created in Action Script 2.0 with illustrative examples. [7]
b) What is constructor? How does it differ from accessor methods, illustrate with examples. [8]
- 5 a) Write about movie clip sub classes in detail. [8]
b) Explain the currency converter class in detail. [7]
- 6 Write in detail about JPEG image compression standard. [15]
- 7 Write a note on the following:
a) Intelligent Multimedia Systems [8]
b) Virtual Reality [7]
- 8 a) Discuss quality of service (QoS) for multimedia transmission. [8]
b) Write in detail about RTP. [7]