Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sanothimi, Bhaktapur

Regular/Back Exam – 2083 Bhadra/Ashwin

Program:	**Diploma in Computer Engineering**	**Full Marks: 80**
Year/ Part:	**III/II (2022)**	**Pass Marks: 32**
Subject:	**Multimedia System**	**Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt ALL Questions.

1. a) What is multimedia system? What are the components of multimedia system? Explain. (2+4)

   b) What is music? How speech is generated and transmitted? (2+4)

2. a) Define image. How is digital image represented? (2+4)

   b) What is computer-based animation? Explain display of animation. (3+3)

3. a) Explain each phase of multimedia application development. (6)

   b) Why do you need data compression in multimedia system? Compare lossless and lossy compression. (2+4)

4. a) Explain analysis, design and implementation phases of multimedia designing. (6)

   b) Explain quality of service and resource management in application subsystem. (3+3)

5. a) What is user interface? What are basic design issues? Explain. (2+4)

   b) What is synchronization? Explain the model for multimedia synchronization. (2+4)

Cont. .....

6. a) What are object-oriented approaches? Explain the uses of libraries in programming. (2+4)

b) Write trends in multimedia applications. (6)

7. Write short notes on: (any **TWO**) (4+4)

a. Multimedia database management system.

b. Toolkits.

c. User interface techniques.

d. LZW compression.

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2082 Shrawan/Bhadra (Regular/Back)

Program: **Diploma in Information Technology/ Computer Engineering** **Full Marks: 80**

Year/Part: **III/I (2022)** **Pass Marks: 32**

Subject: **Multimedia Technology** **Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. Define data streams. Explain the components of multimedia system. [3+7]
2. Explain the concept of sound. Explain how speech is analyzed and transmitted. [2+8]
3. What is image analysis? Describe image analysis techniques. [3+7]
4. What do you mean by computer based animation? Explain. Also, discuss on animation language. [7+3]
5. Write five need of multimedia compression. Differentiate between lossy compression method and lossless compression method. [5+5]
6. Explain the development phases of multimedia in brief. [10]
7. Explain quality of service and database management system in multimedia. [5+5]
8. Discuss on model for multimedia synchronization. [10]
9. Write short notes on: (any TWO) [2×5]
    a. Tips for creating good user interfaces
    b. Object oriented approaches
    c. Trends in multimedia applications
10. Explain multimedia system development cycle in brief. [10]

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2081 Kartik/Mangsir

Program: Diploma in Information Technology/ Computer Engineering **Full Marks: 80**

Year/Part: III/I (2022) **Pass Marks: 32**

Subject: Multimedia Technology **Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. What are the applications of multimedia? Explain various multimedia components. [4+6]
2. What are the steps of audio digitization? Describe about methods of controlling animations. [4+6]
3. What is a digital image? Explain how image synthesis and image analysis is performed. [2+8]
4. Write the needs for data compression. Explain about LZW compression. [4+6]
5. What is user interface and why is user interface important? Explain the phases of multimedia projectdevelopment. [4+6]
6. Explain multimedia database management system. What is collaborative computing? [6+4]
7. What is synchronization and what are synchronization issues? Explain abstraction levels ofprogramming in multimedia system. [5+5]
8. Explain multimedia development cycle. Explain the trends of multimedia application. [5+5]

9. Write short notes on: (any TWO) [2×5]

   a) User friendliness as primary goal
   b) Multimedia system development life cycle
   c) Object oriented approach

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2081 Kartik/Mangsir

Program: Diploma in Information Technology/ Computer Engineering	**Full Marks: 80**
Year/Part: III/I (2018)	**Pass Marks: 32**
Subject: Multimedia Technology	**Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. Define multimedia. Explain the components of multimedia. [2+8]
2. Define analog and digital data? What are the hardware requirement in multimedia? Explain. [2+8]
3. What is font and typeface? Explain the use of textual communications in multimedia. [4+6]
4. Differentiate between vector and bitmap images with examples. [10]
5. What is audio digitization? Explain audio software and production with examples. [4+6]
6. Explain software testing in detail with its types. [10]
7. Define data compression. Differentiate between lossless compression method and lossy compressionmethod. [2+8]
8. Define multimedia network. Explain communication standards. [2+8]
9. Define web based animation. What are the application of animation? [2+8] 10.

Write short notes on: (any TWO) [2×5]

a) Introduction to flash
b) Digital video format and technology
c) Morphing and inverse kinematics

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2080 Magh/Phagun

Program: **Diploma in Information Technology/ Computer Engineering** **Full Marks: 80**

Year/Part: **III/II (2018)** **Pass Marks: 32**

Subject: **Multimedia Technology** **Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. List out and explain functions and applications of multimedia technology. [3+7]
2. What is universal serial bus? Describe the Graphics Card and Graphics Processing Unit (GPU). [2+4+4]
3. What do you mean by textual communication? Explain text design guidelines in detail. [3+7]
4. Differentiate between bitmap and vector graphics. Explain graphics editing software in detail. [5+5]
5. What do you mean by digitization? Explain audio file format in detail. [3+7]
6. Define animation. Explain application areas of animation in detail. [2+8]
7. Describe the concept of multimedia project development. Write the different types of software testing.[8+2]
8. Define compression. Why multimedia compression is important? Differentiate between lossy andlossless compression. [2+2+6]
9. Write short notes on: (any TWO) [2×5]
   a) Media Composition
   b) Sound/audio system
   c) LZW compression

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2080 Magh/Phagun

Program: **Diploma in Information Technology/ Computer Engineering** **Full Marks: 80**

Year/Part: **III/II (2016)** **Pass Marks: 32**

Subject: **Multimedia Technology** **Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. Define Multimedia. Explain various multimedia components. [2+8]
2. Explain speech Generation. How does sound be represented digitally? [6+4]
3. What is Image Analysis and Image Transmission? [5+5]
4. What do you mean by computer based animation? Discuss on the animation languages andtransmission of animation on brief with suitable examples. [4+3+3]
5. What do you mean by Data compression? Differentiate between lossless and lossy compression withsuitable examples. [2+4+4]
6. Define multimedia design. Explain development phases of multimedia. [2+8]
7. Explain about the Multimedia Communication System. Discuss about Multimedia Database management system with examples. [2+8]
8. Differentiate between Hypertext and Hypermedia. Explain Open Document Architecture. [5+5]
9. Describe about the four-layer synchronization reference model. [10]
10. Write short notes on: (Any Two) [2×5=10]

a) Trends in multimedia application
b) Object oriented approaches
c) Toolkits

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2079 Chaitra/2080 Baishakh

Program: Diploma in Information Technology/ Computer Engineering	**Full Marks: 80**
Year/Part: III/II (2018)	**Pass Marks: 32**
Subject: Multimedia Technology	**Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any ALL questions.

1. Define multimedia. Write the components of multimedia. Explain the application of multimedia. [2+2+6]
2. What is analog and digital data? Explain about USB, graphics card and graphical processing unit(GPU). [4+6]
3. Differentiate between hypertext and hypermedia. Write the guidelines for text design. [5+5]
4. List the different graphics editing software. Differentiate between raster and vector image with example.[5+5]
5. Define and explain audio digitization. Write about audio file formats. [6+4]
6. What is animation? Explain the principles of animation. List application of animation. [2+6+2]
7. What is software testing? List the different software testing. Write about the compression techniquesused in multimedia. [2+3+5]
8. Write short notes on: (any TWO) [2×5]
    a) Multimedia Network
    b) Font and Typeface
    c) Computer Color
    d) Photoshop

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2079/2080, Chaitra/Baishakh

Program: Diploma in Information Technology/ Computer Engineering	**Full Marks: 80**
Year/Part: III/II (2016)	**Pass Marks: 32**
Subject: Multimedia Technology	**Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. What are the uses of multimedia? Explain multimedia system and its properties. [3+7]
2. What is sound/audio system? Explain speech generation and analysis. [2+8]
3. How can you represent a digital image? Explain image synthesis. [4+6]
4. What do you mean by Computer-Based animation? What are the methods of controlling animation? [2+8]
5. What is the purpose of data compression? Explain LZW compression. [4+6]
6. What is hypermedia? Explain document architecture ODA. [2+8]
7. Define user interface. Explain about HTML and SGML. [2+8]
8. Explain briefly about model for multimedia synchronization. [10]
9. Write short notes on: (Any Two) [2×5=10]
   a) Trends in multimedia
   b) System software
   c) Designing multimedia

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2078/2079, Chaitra/Baishakh

Program: **Diploma in Information Technology/ Computer Engineering** **Full Marks: 80**

Year/Part: **III/II (2018 New)** **Pass Marks: 32**

Subject: **Multimedia Technology** **Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. Define multimedia. Explain various multimedia components. [2+8]
2. Define external storage and Graphical processing unit. Describe about graphic and image editing inmultimedia. [4+6]
3. Explain about hypertext and hypermedia. What do you mean by typeface and font? [5+5]
4. What is graphics? List and explain various image formats. [2+8]
5. Describe the standards for Video broadcasting. Explain about graphics editing Software. [6+4]
6. What is animation? Write down the guideline for using animation. Explain briefly about morphing. [2+4+4]
7. What is regression testing? Explain about image and Video Compression. [4+6]
8. What are the applications of Photoshop? Differentiate between lossy and lossless compression. [5+5]
9. Write short notes on: (Any Two) [2×5=10]
   a) Bitmap Vs vector
   b) Audio digitization
   c) Application of multimedia

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2078, Chaitra–2079 Baishakh

Program: Diploma in Information Technology/ Computer Engineering	**Full Marks: 80**
Year/Part: III/II (2016)	**Pass Marks: 32**
Subject: Multimedia Technology	**Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. What is multimedia? Explain properties of multimedia system. [5+5]
2. Explain concept of sound. Explain speech transmission in brief. [5+5]
3. How digital image is represented? Explain about image analysis and transmission. [5+5]
4. Define computer based animation. Explain methods of controlling animation. [2+8]
5. What is data compression? Why we need it? Explain about lossy compression. [4+6]
6. Explain development phase of multimedia. [10]
7. Explain about quality of service. Explain about document architecture SGML. [5+5]
8. What is user interface? Explain about user friendliness as the primary goal in user interface. [4+6]
9. What is higher programming language? What is toolkits? [5+5]
10. Write short notes on: [2×5]
    a) MHEG
    b) System Software

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2077, Chaitra

Program:	**Diploma in Information Technology/ Computer Engineering**	**Full Marks: 80**
Year/Part:	**III/II (2008, 2013)**	**Pass Marks: 32**
Subject:	**Multimedia Technology**	**Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. What is multimedia? Classify different types of medium. [2+8]
2. Explain different attributes of sound waves in brief. Also describe MIDI basic Concept. [5+5]
3. What is an image? List the different file format of image. Differentiate between vector and rastergraphics. [2+2+6]
4. Differentiate between video and animation. Explain different stages of computer based animation. [4+6]
5. What do you mean by data compression? Differentiate between lossless compression method andlossy compression method. [2+8]
6. Explain the importance of Hypermedia database in modern application. Explain different types ofmultimedia database. [5+5]
7. Explain user Interface. Explain general design issues in multimedia in brief. [4+6]
8. Describe about the four-layer synchronization reference model. [10]
9. Write short notes on: (Any Two) [2×5=10]
   a) Trends in multimedia application
   b) Image Synthesis
   c) Toolkits

Good Luck!

Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sarnothimi, Bhaktapur

Regular/Scholarship/Back Exam - 2075 Shrawan/Bhadra

Program: Diploma in Information Technology/ Computer Engineering **Full Marks: 80**

Year/Part: III/II **Pass Marks: 32**

Subject: Multimedia Technology **Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any EIGHT questions.

1. Explain the properties of multimedia system according to variation of consecutive packet amount. Alsodiscuss on information units. [5+5]
2. Explain speech generation. How does sound be represented digitally? Explain. [6+4]
3. What is image? Differentiate between vector and raster image with examples. [2+2+4]
4. What do you mean by computer based animation? Explain. Also discuss on animation language. [7+3]
5. What is data compression? Why do we need data compression? Explain about entropy and hybridcoding. [2+2+6]
6. What are the basic design issues of user interface? How can we get user friendliness in user interface? [4+6]
7. Explain briefly about application subsystem and multimedia database management system. [10]
8. What is HTML? Why does HTML know as markup language? Write short notes on documentarchitecture. [3+3+4]
9. Discuss on model for multimedia synchronization. [10]
10. Write short notes on: (Any Two) [2×5]
    a) Media Composition
    b) System software
    c) Trends in multimedia applications