

POKHARA UNIVERSITY

Level: Bachelor
Programme: BE
Course: Multimedia Systems

Semester: Spring

Year : 2021
Full Marks: 100
Pass Marks: 45
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 the questions.

1. a) Define multimedia and its elements. Where is the use of multimedia technology and how does it help? 7
b) What are MIDI devices? Write the function of the MIDI software. 8
2. a) What are the components of speech recognition? Explain with proper diagram. 7
b) What are the basic types of animation? Discuss the use of the YUV model. 8
3. a) How can compression be achieved using JPEG compression? Explain in detail with suitable block diagram. 8
b) Explain the image recognition steps with the suitable diagram. 7
4. a) The probabilities of 7 sources are given A (0.25), B (0.25), C (0.125), D (0.125), E (0.125), F (0.0625), G (0.0625). Determine the codeword of all the sources using Huffman coding and also calculate the entropy and average length. 8
b) Explain CD-ROM/XA architecture and discuss about its FORM 1 and FORM 2. 7
5. a) What is Real Time System? Explain the real time scheduling system models. 8
b) Define Hypermedia. Differentiate between ODA and SGML architecture. 7
6. a) What is resource in terms of multimedia? What are the phases of the resource reservation and management process? Explain different ways of reserving the resources. 8
b) Discuss the concept of group communication architecture. Explain the model for group communication architecture 7

7. Write short notes on: (Any two)

- a) Mediums of multimedia
- b) Speech Generation
- c) USB

2×5