

**322847(22)**

**B. E. (Eighth Semester) Examination, April-May 2021**

**(New Scheme)**

**(CSE Engg. Branch)**

**INTERNET and MULTIMEDIA TECHNOLOGY**

**Time Allowed : Three hours**

**Maximum Marks : 80**

**Minimum Pass Marks : 28**

**Note :** Attempt all questions. Part (b) of each question is compulsory and carrying 2 marks each and attempt two parts from (b), (c) and (d) carrying 7 marks each. Draw labelled diagram to support your answer and state assumption clearly if any.

**Unit-I**

1. (a) Define Firewall.

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- (b) Explain TCP/IP protocol suite with different protocols in each layer. 7
- (c) Explain the working of ARP and RARP protocol. 7
- (d) A company is granted the class C site address 201.70.64.0 the company needs six subnet. Design the subnet. 7

**Unit-II**

- 2. (a) What are the different types of cable media used in computer network? 2
- (b) Give reason why separate network for signaling is required in modern telephone network and explain the devices and protocol stack of signaling system 7 (SS7). 7
- (c) Draw the ATM reference model and write the function of each layer of ATM reference model. 7
- (d) Explain the services provided by the different layers in ISDN. 7

**Unit-III**

- 3. (a) Define wireless network. 2

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- (b) Explain MACAW protocol for wireless LAN. 7
- (c) Define mobile IP and explain the 03 phases of data transfer in mobile IP. 7
- (d) Explain the Bluetooth and its type. 7

**Unit-IV**

- 4. (a) Define temporal and non-temporal media. 2
- (b) Explain LZW compression algorithm. Encode the string "BAABABBBAABBBBAA" using LZW algorithm. 7
- (c) Briefly state the Huffman coding algorithm with example? 7
- (d) Describe briefly outline the JPEG compression pipeline and the constituent compression algorithms employed at each stage in the pipeline. 7

**Unit-V**

- 5. (a) What is IEEE 1394? 2
- (b) What is MMX technology instruction? Also explain the data type and instruction set of MMX technology instruction. 7

- (c) Describe content based image retrieval with example. 7
- (d) Explain the Earliest deadline first algorithm (EDF) and write the condition to determine whether the task set is schedulable by EDF. 7

Unit-17

4. (a) Explain the Huffman coding algorithm with an example.

(b) Explain the LZW compression algorithm with an example.

(c) Explain the JPEG compression algorithm with an example.

(d) Explain the MPEG compression algorithm with an example.

(e) Explain the H.264 video compression algorithm with an example.

(f) Explain the H.265 video compression algorithm with an example.

(g) Explain the H.266 video compression algorithm with an example.

(h) Explain the H.267 video compression algorithm with an example.

(i) Explain the H.268 video compression algorithm with an example.

(j) Explain the H.269 video compression algorithm with an example.

Unit-18

5. (a) Explain the H.264 video compression algorithm with an example.

(b) Explain the H.265 video compression algorithm with an example.

(c) Explain the H.266 video compression algorithm with an example.

(d) Explain the H.267 video compression algorithm with an example.