(iii) What is the result of following run length encoding step being applied to the zig-zag steps output?

(c) Explain the operation of basic DPCM signal encoder and decoder. Also explain the source of errors that can arise. 7

(d) Explain speech and audio compression. 7

Unit-V

5. (a) Define VOD. 2

(b) Explain characteristics of MMX instruction set. 7

(c) Explain IEEE 1394 interface. 7

(d) Describe content based image retrieval and content based video retrieval. 7

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B. E. (Eighth Semester) Examination, April-May 2016

(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 (a) of each question is compulsory and carrying 2 marks each and attempt two parts from (b), (c) and (d) carrying 7 marks each.*

Unit-I

1. (a) Give protocol suite of TCP/IP model.

(b) Explain the function of ARP and RARP with packet format. 7

(c) A company is granted the site address 201·70·64·0. The company needs six subnets : 7

(i) Design the subnets.

(ii) Find the subnet mask.

(iii) Find the number of addresses in each subnet.

(iv) Find the first and last address in the first subnet.

(v) Find the first and last address in the last subnet.

(d) Discuss different types of messages sent by ICMP protocol with packet format. 7

Unit-II

2. (a) Define B-ISDN. 2

(b) Briefly explain services provided by data link layer and network layer. 7

(c) What is DIAS Network? Write the application of DIAS network. 7

(d) Define signaling system and layers of SS7. 7

Unit-III

3. (a) Define LMDS. 2

(b) Explain Adhoc networks and MACAW protocol. 7

(c) What is Bluetooth? Explain its feature and goals. 7

(d) What is WLL? Explain it's architecture and technology. 7

Unit-IV

4. (a) What is temporal and non-temporal media? 2

(b) Given the following portion from a 8×8 block from an image after the DCT has been applied : 7

128	64	46	128
128	32	64	160
32	16	12	32
4	31	40	32

(i) What is the result of the quantization step of the JPEG compression method assuming that constant quantization value of 32 is assumed?

(ii) What is the result of following zig-zag step being applied to the quantized block.