

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-1 EXAMINATION- March -2018

M.Tech II Semester

COURSE CODE: 10M11CI214

MAX. MARKS: 15

COURSE NAME: Multimedia Systems

COURSE CREDITS: 03

MAX. TIME: 1 HRS

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

**Ques 1 [1 + 2 = 3 Marks]** Discuss the motivation behind the growth of multimedia technology? Further, discuss the challenges/issues involved with multimedia communication in brief.

**Ques 2 [1+1+3 = 5 Marks]** Identify three novel applications of internet or multimedia applications. Discuss why you think these are novel. Further, discuss the merits and demerits of multimedia teaching in University/Colleges in brief.

**Ques 3 [1.5+ 1+ 4.5 = 7 Marks]** Explain the difference between Huffman and arithmetic coding with suitable example? Under which circumstances are arithmetic coding is better than Huffman coding and vice versa? Consider an image strip of size 50×100. The image consists of five vertical strips. The grey levels of the strips from left to right are 128, 64, 32, 16 and 8. The corresponding widths of the strips are 35, 30, 20, 10 and 5 pixels respectively. If this stripe image is coded by binary and non-binary Huffman coding, determine its efficiency and degree of compression by both binary and non-binary compression techniques. Assuming 3 bits to represent the pixel value