40

INSTRUCTIONS TO CANDIDATES

Question ONE (1) and Any OTHER 2 questions

TIME: 2 Hours

QUESTION ONE –COMPULSORY [30 MARKS]

Q1 a) i) Define virtual reality   2 marks

    ii)   In animation differentiate between tweening, and morping 4 marks

b)i) Using Huffman compression algorithm encode the following text FAABBCFABBDDFA.

ii)   ii) How many bits are needed to transfer this coded message 8 marks

c) Explain 4 factors contributing to the growth of multimedia technology   8 marks

e) i)A video file has a resolution of

1920 by 930 pixels,   colour depth 16 colours   frame rate 30frames per second, duration 2 hours,

calculate the BW required to download the file in 4 minutes for 2 users.

    8marks

Q2 a) Discuss 4 uses of Multimedia   4 marks

    b) What is meant by the terms static media and dynamic media ? Give one examples of each type of media   6marks

c) Explain how sound is represented in a computer. 6marks

d) What are MIDI devices   4 marks

Q3 a) List the 5 elements of multimedia   5 marks

b) Distinguish between lossy and lossless data compression   5marks

c) Describes 3 characteristics of vector images   6 marks

d) List 4 characteristics of cascading style sheets (CSS)   4 marks

Q4 a) i) Distinguish between hypertext and hypermedia

    ii)Explain and name the effect which shows how the interior of a house might look as you move through it?   4 marks

b) Explain the process of recording patterns of movement digitally, in order to animate a 3D character in a film or computer game?   5 marks

c)Define QOS(quality of service) list 3 requirements for acceptable QOS   2marks

Q5. a) i) Define aliasing   2 marks

    ii)Explain the purpose of anti-aliasing   4 marks

b) state the advantages and disadvantages of converting paper-based photographs to digital media? 4 mks

c)i) Explain 3 steps in digitizing an audio signal   6 marks

  ii) Explain the multimedia technology is used in Webpage display   4 marks