Bristol Institute of Technology

University of the West of England
BRISTOL
UWE

Academic Year: 2009/10
Examination Period: Summer

Module Leader:	Frank Maddix
Module Code:	UFCEKR-20-1
Title of Module:	Media Technologies

Examination Date: Tuesday 18th May 2010
Examination Start time: 09:30
Duration of Examination: 3 hours

Instructions to Candidates:

Candidates must answer any FIVE questions.

Materials supplied to the candidate will be:

Number of Examination Booklets per Examination	1
Number of sheets of Graph Paper size G3 (Normal)	0
Number of Pre-printed OMR (Multiple Choice Answer Sheet)	0

Additional Instructions to Invigilators:

University approved calculators may be used	Yes
Candidates permitted to keep Examination Question Paper	Yes
Material supplied by student allowed (must be collected with answer booklet) please specify:	No
Additional Specialised Material : NONE	

Treasury tags & adhesive triangles will be supplied as standard

Answer FIVE questions. Each question carries 20 marks.

Q1. Text is used to carry the bulk of information in multimedia and websites.

    a) Explain the difference between the *content* and *appearance* of text

                                     (6 marks)

    b) Briefly explain how characters are mapped to codes   (4 marks)

    c) Explain the following terms:
        a. Alphabet
        b. Glyph
        c. Font
        d. Anti-aliasing
        e. Proportional spacing   (10 marks)

Q2. Colour is an important aspect of multimedia presentations.

    a) Based on the *colour wheel* model, what would be the (i) best and (ii) worst combination of colours for a text area on a web page? Give your reasons.

                                       (10 marks)

    b) Describe the RGB model of colour representation.   (5 marks)

    c) Describe the HSV model of colour representation.   (5 marks)

Q3. Adobe Flash is an authoring platform of choice for most dynamic websites.

    a) Name FIVE aspects of the Flash environment that make it particularly suitable for creating multimedia for websites.   (10 marks)

    b) Explain how events such as mouse clicks are dealt with in ActionScript 3.

                                         (10 marks)

Q4. MIDI / Audio

    a) What is the difference between *audio* and *music* in the context of multimedia?   (10 marks)

    b) With regard to MIDI, explain what is meant by:
        a. Channel   (2 marks)
        b. Program change   (2 marks)
        c. Bank Select   (2 marks)
        d. Command   (2 marks)
        e. General MIDI   (2 marks)

Q5. Video recorders are now an integral part of many peoples' lives.

   a) Describe the processes that are carried out internally by a video recorder between the outside of the lens and the onboard recording medium (e.g. DVD, memory stick)

(10 marks)

   b) Why is the MP-4 video standard particularly suited to today's demanding multimedia environments? (10 marks)

Q6. The vinyl recording medium still seems to be a viable alternative to the CD.

   a) Explain how the wavy groove in a vinyl record is encoded by the transducer into audible stereo sounds. (10marks)
   b) Explain how sound information is encoded onto a CD. (10 marks)

Q7. Digital photography is now the medium of choice for most people, but there are major overlaps with the world of film.

   a) Explain what is meant by the following:
      a. Megapixels (2 marks)
      b. Noise (2 marks)
      c. RAW format (2 marks)
      d. White Balance (2 marks)
      e. Image Stabilisation (2 marks)
   b) Briefly describe FIVE features of traditional photography that have been carried over to the digital world. (10 marks)

Q8. "If they can't get on with your website within 10 seconds, they'll go onto somebody else's" (Jacob Nielsen)

   a) Briefly describe FIVE of Nielsen's Usability Heuristics which would contribute to GOOD usability in a website. (10 marks)
   b) Briefly describe FIVE features which contribute to POOR usability in a website. (10marks)