



B O A R D O F S T U D I E S
NEW SOUTH WALES

2010

**HIGHER SCHOOL CERTIFICATE
EXAMINATION**

Industrial Technology

Multimedia Technologies

General Instructions

- Reading time – 5 minutes
- Working time – $1\frac{1}{2}$ hours
- Write using black or blue pen
- Draw diagrams using pencil
- Board-approved calculators may be used
- Write your Centre Number and Student Number at the top of page 5

Total marks – 40

Section I Pages 2–4

10 marks

- Attempt Questions 1–10
- Allow about 20 minutes for this section

Section II Pages 5–8

15 marks

- Attempt Questions 11–16
- Allow about 35 minutes for this section

Section III Page 9

15 marks

- Attempt Question 17
- Allow about 35 minutes for this section

Section I

10 marks

Attempt Questions 1–10

Allow about 20 minutes for this section

Use the multiple-choice answer sheet for Questions 1–10.

1 In which set are all the file types used for image files?

- (A) BMP, PNG, PCX, WAV
- (B) GIF, PCX, WMA, TIFF
- (C) JPEG, WAV, MP3, WMA
- (D) TIFF, PNG, JPEG, BMP

2 The text shown has which of the following text elements?

Industrial Technology has been developed to incorporate content related to current and developing technologies.¶

- (A) Serif, bold, underline, aligned
- (B) Serif, indents, italics, aligned
- (C) Numbers, bold, underline, italics
- (D) Bold, underline, italics, sans serif

3 The process where one image changes into another through a seamless transition is known as

- (A) blending.
- (B) morphing.
- (C) rendering.
- (D) wrapping.

4 Which of the following describes the function of a scanner?

- (A) Creating vector images
- (B) Creating bitmapped images
- (C) Converting bitmapped images into vector images
- (D) Converting bitmapped text images into editable text

5 Which file type is suitable for video?

- (A) MIDI
- (B) MP3
- (C) MP4
- (D) WMF

6 What is the language protocol of the world wide web?

- (A) ADSL
- (B) HTML
- (C) ISP
- (D) RTSP

7 What are hyperlinks used for?

- (A) To show relationships between events
- (B) To navigate to material in another location
- (C) To improve the speed of uploads and downloads
- (D) To improve readability of web based documents

8 A 51 kB image takes 10 seconds to download at 56.6 kilobits per second.

If the image was compressed to 8 kB, approximately how many seconds would it take to download at 56.6 kilobits per second?

- (A) 2
- (B) 4
- (C) 8
- (D) 20

- 9 Which of the following best explains why portable document files (pdf) are placed on internet sites?
- (A) They are easily read by all software.
 - (B) They can be modified with open source software.
 - (C) They can be locked so that they cannot be edited.
 - (D) They are highly compressed yet still maintain all their information.

- 10 An image scanned at 600 dpi has an image size of 16 MB.

What would be the expected file size if it was rescanned at 300 dpi?

- (A) 300 kB
- (B) 3 MB
- (C) 4 MB
- (D) 8 MB



Industrial Technology Multimedia Technologies

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Centre Number

Section II

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Student Number

15 marks

Attempt Questions 11–16

Allow about 35 minutes for this section

Answer the questions in the spaces provided. These spaces provide guidance for the expected length of response.

Question 11 (1 mark)

How could a .wav file be optimised for use on the web?

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Question 12 (2 marks)

Compare downloading and streaming video.

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Question 13 (2 marks)

What are the advantages of using cascading style sheets when developing websites? **2**

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Question 14 (3 marks)

Identify TWO types of video compression and describe an advantage of each. **3**

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Question 15 (3 marks)

Discuss the suitability of using vector and bitmapped images in a multimedia presentation.

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Question 16 (4 marks)

Describe the procedures that need to be followed by a web designer when constructing a website.

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Industrial Technology Multimedia Technologies

Section III

15 marks

Attempt Question 17

Allow about 35 minutes for this section

Answer the question in a writing booklet provided. Extra writing booklets are available.

Question 17 (15 marks)

A small family-owned company is operating successfully in a local market. The company is assessing the feasibility of relocating to a larger facility in order to expand production.

- (a) Outline environmental considerations that may affect the expansion of the company. **3**

- (b) Analyse the structural, technical and personnel issues to be considered prior to relocating and expanding. **12**

End of paper

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