

Industrial Technology

Multimedia Technologies

General Instructions

- Reading time – 5 minutes
- Working time – 1½ hours
- Write using black 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 5–7

15 marks

- Attempt Questions 11–15
- Allow about 35 minutes for this section

Section III Page 9

15 marks

- Attempt Question 16
- 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** What is the name of the effect which shows how the interior of a house might look as you move through it?

 - (A) Walk through
 - (B) Motion capture
 - (C) Navigable scene
 - (D) Path animation

- 2** In what type of animation is tweening used?

 - (A) Cell-based
 - (B) Path-based
 - (C) Still-based
 - (D) Stop-based

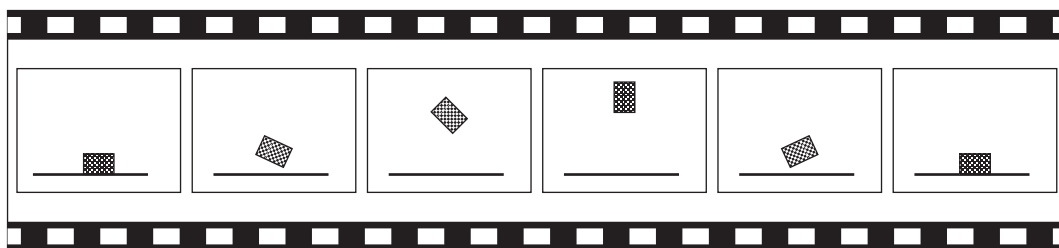
- 3** What is the name of the video special effect that depicts an image changing from one shape to another?

 - (A) Morphing
 - (B) Rendering
 - (C) Transitioning
 - (D) Warping

- 4** What is the name of the multimedia authoring technique that allows the user to interact and control the information display?

 - (A) Linear
 - (B) Sequential
 - (C) Non-linear
 - (D) Non-hierarchical

- 5 Which of the following can be used to record patterns of movement digitally, in order to animate a 3D character in a film or computer game?
- (A) Stop motion
 - (B) Motion capture
 - (C) Screen capture
 - (D) Motion graphics
- 6 What is audio sample rate?
- (A) The pitch of an audio signal
 - (B) The bit depth of an analog audio signal
 - (C) The speed at which an audio file is played
 - (D) The number of times at which sound is measured per second
- 7 What does the *bit depth* of a graphic refer to?
- (A) Whether a graphic is displayed in 2D or 3D
 - (B) The number of pixels displayed for the graphic
 - (C) The maximum allowable print size of that graphic
 - (D) The maximum number of colours that can be displayed by a graphic
- 8 What type of animation is depicted in the image?



- (A) 2D animation
- (B) 3D animation
- (C) Key frame animation
- (D) Still animation

- 9** Which of the following correctly describes the characteristics of vector images?
- (A) Scalable and resolution dependent
 - (B) Scalable and resolution independent
 - (C) Non-scalable and resolution dependent
 - (D) Non-scalable and resolution independent
- 10** Which of the following statements is true of cascading style sheets (CSS)?
- (A) A separate sheet must be created for each page of a website.
 - (B) They are memory intensive and can be slow to load.
 - (C) A single CSS file can be applied to an entire website.
 - (D) They enhance the website's adaptability to be viewed in different browsers.

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Centre Number

Section II

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Student Number

15 marks

Attempt Questions 11–15

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)

What is the purpose of anti-aliasing?

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Question 12 (3 marks)

What are the advantages and disadvantages of converting paper-based photographs to digital media?

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Question 13 (3 marks)

Outline THREE challenges faced by designers when creating multimedia content for the web.

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Question 14 (3 marks)

Outline the multimedia elements that need to be considered when adapting a computer-based game for a handheld device.

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Question 15 (5 marks)

Describe the impact that an increased availability of bandwidth has had on the delivery of multimedia content online.

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Section III

15 marks

Attempt Question 16

Allow about 35 minutes for this section

Answer part (a) of the question in a writing booklet. Answer part (b) of the question in a SEPARATE writing booklet. Extra writing booklets are available.

Question 16 (15 marks)

Answer part (a) of the question in a writing booklet.

- (a) Explain how restructuring a business can affect quality control. **5**

Answer part (b) of the question in a SEPARATE writing booklet.

- (b) Assess the effect of new technology on production and efficiency in the multimedia industry. **10**

End of paper

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