BOARD OF STUDIES
NEW SOUTH WALES

STUDENT NUMBER

CENTRE NUMBER

HIGHER SCHOOL CERTIFICATE EXAMINATION

1999

INDUSTRIAL TECHNOLOGY

2 UNIT

SECTION II
GRAPHICS AND MULTIMEDIA INDUSTRIES

OPTION—MULTIMEDIA

Total time allowed for Sections I and II—One hour and a half
(Plus 5 minutes reading time)

DIRECTIONS TO CANDIDATES

- Write your Student Number and Centre Number at the top right-hand corner of this page.
- Where appropriate, show all working for solutions neatly and clearly.
- You may use Board-approved drawing instruments and calculators.

Section II—Multimedia (15 marks)

- Question 4 is COMPULSORY.
- Attempt TWO questions from Questions 5, 6 and 7.
- Answer the questions in the spaces provided in this paper.

MARKER'S USE ONLY

Question				
4				
5				
6				
7				

SECTION II—MULTIMEDIA OPTION

(15 Marks)

QUESTION 4 This question is COMPULSORY. (5 marks)

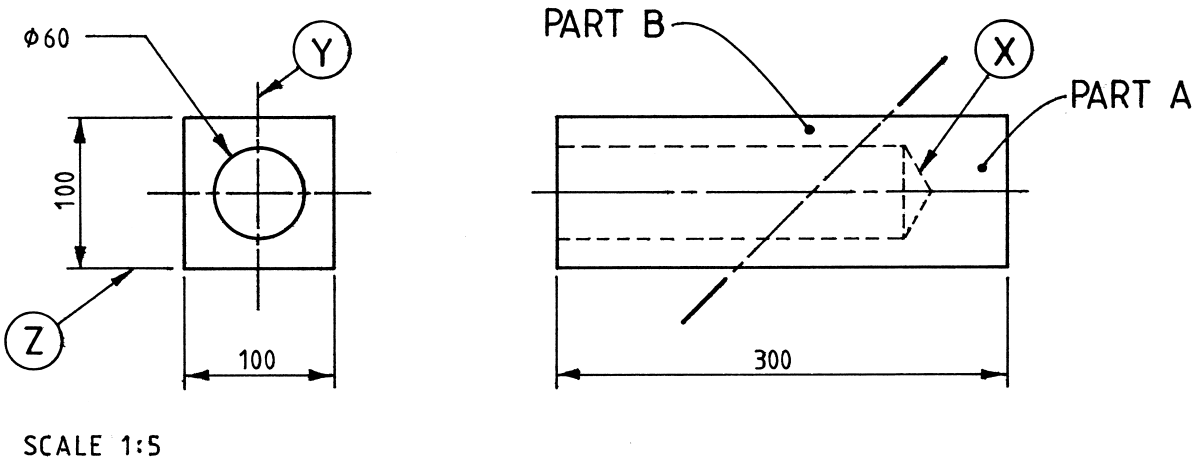

FIG. 1

The object shown in Figure 1 is drawn to scale and has its horizontal axis bisected by a section plane at 45° to the horizontal plane. The section plane divides the object into two parts (Part A and Part B).

(a) Use the space below to complete a freehand pictorial sketch of Part A. Your sketch should show the maximum detail of Part A.

QUESTION 4 (Continued)

(b) Complete below a scaled orthogonal sketch of the object (Part A only) showing sufficient views to represent every surface as a true shape. Label each view.

Question 4 continues on page 4

QUESTION 4 (Continued)

(c) (i) Determine the angle of projection used in Figure 1 on page 2.

Angle of projection .....

(ii) Sketch in the space provided below, the AS1100 Drawing Standard symbol for the angle of projection given in part (c) (i).

(d) Name the features labelled X, Y and Z in Figure 1 on page 2.

X .....

Y .....

Z .....

Attempt TWO questions from Questions 5, 6 and 7.

QUESTION 5 (5 marks)

By giving an example of work that you are familiar with from the Multimedia Option, define the following terms.

(a) (i) Copyright

Example .....

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Definition .....

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(ii) Editing

Example .....

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Definition .....

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Question 5 continues on page 6

QUESTION 5 (Continued)

(iii) Story board

Example .....

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Definition .....

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(iv) Authoring

Example .....

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Definition .....

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(v) File format

Example .....

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Definition .....

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QUESTION 5 (Continued)

(b) Printing a hard copy of draft designs for interactive multimedia is often done as part of the process of design development.

(i) Describe an appropriate resolution and format for the printing of such drafts.

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(ii) Explain why another resolution or format would not be appropriate.

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(c) Discuss THREE considerations when downloading files from the Internet to be used within an interactive document for children under 10 years of age.

Consideration 1

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Consideration 2

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Consideration 3

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QUESTION 6 (5 marks)

(a) Complete the grid below by inserting the appropriate terms.

Tool/Process	*Application*
File conversion	....
Flat-bed scanner	....
	A piece of hardware that enables the easy and accurate transfer of a paper drawing into a CAD package.
Animation	....

QUESTION 6 (Continued)

(b) The process of final pressing of a new interactive multimedia CD commences well before the final save of the software.

By referring to FOUR stages, explain some of the processes leading to the final production copy being approved.

Stage 1

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Stage 2

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Stage 3

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Stage 4

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Question 6 continues on page 10

QUESTION 6 (Continued)

(c) There are many electronic document types that enable a user to interact with the document for the purpose of learning.

(i) Name and describe ONE interactive electronic document type.

Name .....

Description .....

.....

.....

(ii) Draw and label a sketch showing a possible screen from such an interactive document, explaining how a document could react to input.

QUESTION 6 (Continued)

(d) Graphics to be used in interactive documents can be created by hand, directly by appropriate software, or by a combination of both. Discuss the advantages of each method.

(i) By hand

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(ii) By use of software

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(iii) By a combination of hand and software

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QUESTION 7 (5 marks)

(a) The multimedia industries have undergone rapid change in recent years. Select and name a new or developing technology relevant to the multimedia industries.

(i) Name of technology selected .....

(ii) Explain the use of this technology.

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(iii) Explain the technology it replaces.

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(iv) Describe its impact in large organisations in terms of workplace reform.

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(v) Explain how it has changed the use of multimedia by the average person.

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(vi) Describe the impact this new technology has had on the environment.

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QUESTION 7 (Continued)

(b) Interaction between a user and software can occur using a range of input devices.

Name and describe THREE different input devices that could be used for the interaction between a user and software.

Device 1

Name .....

Description .....

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Device 2

Name .....

Description .....

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Device 3

Name .....

Description .....

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Question 7 continues on page 14

QUESTION 7 (Continued)

(c) Sound and video are becoming increasingly a part of multimedia.

(i) Explain why this increase is possible.

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(ii) Name TWO file formats used for video, and explain ONE advantage and ONE disadvantage of each.

1 File format .....

Advantage .....

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Disadvantage .....

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2 File format .....

Advantage .....

.....

Disadvantage .....

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(iii) Name TWO file formats for sound, and explain ONE advantage and ONE disadvantage of each.

1 File format .....

Advantage .....

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Disadvantage .....

.....

2 File format .....

Advantage .....

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Disadvantage .....

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QUESTION 7 (Continued)

(d) Video, sound and graphics can be created or copied from a range of sources including the Internet, graphics libraries and installed software.

(i) Discuss the advantages of obtaining video, sound or graphics files from an existing source compared to creating them.

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(ii) Discuss the advantage of creating video, sound or graphics using appropriate hardware and software.

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(iii) Describe a situation where creation of a graphic would be most appropriate.

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(iv) Describe a situation where using a library or downloading a graphic would be most appropriate.

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End of paper

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