

BOARD OF STUDIES  
NEW SOUTH WALES

# 2001 HSC Specimen Paper

## **Information Technology**

## ACKNOWLEDGEMENTS

*Question 18 – Screen grab of Print Dialogue Box: © Microsoft*

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## **Information Technology (240 indicative hours)**

### **(Information Technology Curriculum Framework)**

This booklet contains the specimen examination paper for the 2001 Higher School Certificate examination in the 240-hour VET course in Information Technology.

The specimen paper shows the format of the New HSC examination. It has been printed on A4 paper and side-stapled, to make it convenient for use in schools. Actual examination papers will be produced as A4 booklets. All New HSC papers will be printed on white paper.

The 2001 HSC specimen papers have been produced in accordance with the Board's *Principles for Setting HSC Examinations in a Standards-Referenced Framework*, published in Board Bulletin Volume 8 Number 9 (Nov/Dec 99).

The specimen paper as a whole is structured to allow for appropriate differentiation of student performance. The format of the paper allows students to gain a clear understanding of what they are required to do in each question, and in working through the paper. Instructions have been standardised and the demands of the questions have been made explicit. Key words in questions, such as 'discuss', 'analyse', and 'explain', have been used consistently in accordance with the glossary published in the Board's *Assessment Support Document*.

The examinations in the 240-hour VET courses are optional, but required of students who wish this subject to contribute towards a University Admission Index. Students who sit for the examination will receive a statement of HSC outcomes in the same form as for other Board determined HSC courses.

This specimen paper is an example of the type of examination that could be prepared within the examination specifications for the 240-hour VET course in Information Technology. The range and balance of outcomes tested in the HSC examinations in 2001 and subsequent years may differ from those addressed in this specimen paper. Questions are based on:

- the units of competency identified for examination;
- the minimum prescribed learning contained in the Higher School Certificate requirements for each specified unit of competency;
- the associated key competencies.

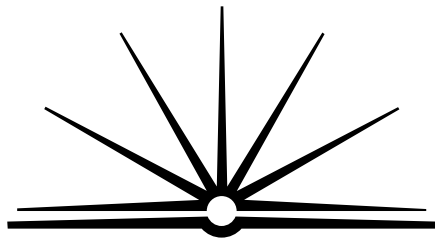
There are a number of points to note in considering the Information Technology specimen examination paper:

- All VET examination papers conform to a common examination framework:
  - Section I – multiple-choice items (15 marks)

- Section II – short response items (35 marks)
- Section III – extended response items (30 marks)

The examination is a 2-hour written paper. A total of 80 marks is shown on the examination paper. The total marks gained by a student on the paper are then converted to a mark out of 100.

- The number of questions in Section II may vary from year to year, however marks in this section will always total 35.
- A rubric indicating general criteria for judging performance has been placed at the beginning of Section III to clearly indicate the factors that will be used to assess responses to the question(s). These criteria are in addition to criteria specific to each question.
- For the purposes of the specimen papers only, there are some questions that appear in more than one of the VET specimen examinations. For the 2001 and subsequent HSC examinations, the papers will have no questions in common.



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

**2001**  
HIGHER SCHOOL CERTIFICATE  
SPECIMEN EXAMINATION

# Information Technology

## General Instructions

- Reading time – 5 minutes
- Working time – 2 hours
- Board-approved calculators may be used
- Write using blue or black pen
- Write your Centre Number and Student Number at the top of page 7

**Section I** Pages 2 – 6

Total marks **(15)**

- Attempt Questions 1 – 15
- Allow about 15 minutes for this section

**Section II** Pages 7 – 13

Total marks **(35)**

- Attempt Questions 16 – 19
- Allow about 45 minutes for this section

**Section III** Pages 15 – 16

Total marks **(30)**

- Attempt TWO questions from Questions 20 – 22
- Allow about 1 hour for this section



- 1** In a word processing document, which of the following procedures most efficiently moves selected text from one location to another?
- (A) From the menu choose 'copy' and then 'paste'.
  - (B) From the keyboard choose backspace and insert.
  - (C) From the keyboard choose delete and insert.
  - (D) From the menu choose 'cut' and then 'paste'.
- 2** Which of the following statements relating to laptop computers is true?
- (A) Laptop computers cannot be connected to a network.
  - (B) Laptop computers are always less powerful than desktop computers.
  - (C) Laptop computers can run the same software as their desktop equivalents.
  - (D) Laptop computers are incompatible with most printers.
- 3** A new software program is to be installed onto a computer workstation. The files needed for the software installation are stored on a CD-ROM. Which of the following is most likely to describe the process of installing the software?
- (A) Copying only executable files from the CD-ROM onto the computer's hard disk
  - (B) Backing up all files on the CD-ROM onto floppy disks and following the prompts
  - (C) Write-protecting the CD-ROM and running the program upgrade.exe
  - (D) Running the file setup.exe from the CD-ROM and following the prompts
- 4** Which of the following best defines a printer driver?
- (A) A hardware device used for producing paper output
  - (B) A piece of software designed to assist the output from a printing device
  - (C) The belt used to turn the drum in a laser printer
  - (D) An operator responsible for maintaining printing devices on a network

- 5 Tom has returned to his job in a large information technology department following a year's leave taken to care for his children. Tom fails to gain a promotion for a job he wants. He is informed that the firm prefers to promote single people as they are more committed to their work.

Tom may have experienced which form of discrimination?

- (A) Indirect discrimination on the basis of gender
  - (B) Indirect discrimination on the basis of marital status
  - (C) Direct discrimination on the basis of gender
  - (D) Direct discrimination on the basis of marital status
- 6 Which of the following best describes workers compensation?
- (A) A reimbursement of wages or salary paid to a worker injured at work
  - (B) A reimbursement of sick leave and superannuation paid to the injured worker
  - (C) A fixed amount paid to the injured worker while performing light duties
  - (D) A fixed amount paid to the injured worker as a compulsory saving
- 7 An employee uses unlicensed business software. The employee's organisation is in breach of which of the following?
- (A) The copyright laws
  - (B) The organisation's confidentiality policy
  - (C) The occupational health and safety laws
  - (D) The software company's style manual

- 8 Mark is working on a quarterly financial report using a standard spreadsheet package. While he has the file open, his colleague Beth opens a copy of the same file. She makes some changes to the file that she has open but doesn't rename the file.

Which of the following statements is always true?

- (A) Mark will not be able to save changes to the spreadsheet while Beth is working on her copy.
- (B) The spreadsheet that Beth is working on cannot be saved.
- (C) The changes that Beth makes to her spreadsheet automatically appear on Mark's spreadsheet.
- (D) Beth's spreadsheet can be saved, provided it is stored in a different location to Mark's.

- 9** In a computer network, what is the main purpose of allocating individual passwords?
- (A) To verify the user's identity
  - (B) To alert the network manager as each user is logging on
  - (C) To activate the file server
  - (D) To minimise the risk of the computer being stolen
- 10** What term best describes the act of tracking the activities carried out on a computer network?
- (A) Logging on
  - (B) Auditing
  - (C) Pinging
  - (D) Troubleshooting
- 11** Which of the following best describes an organisational chart?
- (A) A graphic representation of the organisation's employees
  - (B) A diagram depicting the long-term goals of the organisation
  - (C) A structural representation of the departments within the organisation
  - (D) A flowchart that outlines operational procedures within the organisation
- 12** Chris installs a scanner on the manager's computer. When testing the scanner, Chris finds it runs very slowly. Which of the following is the most probable cause of the slow performance of the scanner?
- (A) The scanner has been attached to the serial port rather than the parallel port.
  - (B) The voltage switch on the scanner is set to 110 volts rather than 240 volts.
  - (C) The processor on the manager's computer is insufficient for that scanner.
  - (D) The hard disk capacity on the manager's computer is insufficient for that scanner.
- 13** Many operating systems allow a floppy disk to be formatted as a system disk. What files will typically be copied onto a system disk during this formatting process?
- (A) All files from the computer's root directory
  - (B) All files on the hard drive
  - (C) Sufficient operating system files to run the computer
  - (D) Sufficient executable files to run installed software

- 14 Read the following information to answer this question.

This is a paragraph of text that is formatted in a particular style. This paragraph contains four short sentences. This is the third sentence in the paragraph. This is the fourth and final sentence in the paragraph.

What type of paragraph formatting has been applied in the text above?

- (A) A first-line indent
  - (B) Fully-justified text
  - (C) A hanging indent
  - (D) Strike-through text
- 15 The following is an extract from a customer database table that contains more than 10 000 records.

<i>First Name</i>	<i>Last Name</i>	<i>Address</i>
Adam	Jackson	23 High St
William	Ayoub	8 Windy Ave
Stephen	Jackson	1006 Long Rd
Zachary	Ayoub	214 Main Ave

If these records are sorted in ascending order by last name and first name, the first record to be displayed will be that belonging to

- (A) Adam Jackson.
- (B) William Ayoub.
- (C) Stephen Jackson.
- (D) Zachary Ayoub.

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Centre Number

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Student Number

## Section II

**Total marks (35)**

**Attempt Questions 16 – 19**

**Allow about 45 minutes for this section**

Answer the questions in the spaces provided.

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**Marks**

**Question 16** (12 marks)

Jane and Eric attend a seminar with 200 other participants. The contact details of everyone attending are distributed to each participant. When Jane returns to her office, she creates a database that contains the details of the participants. She intends to use the data for marketing purposes. Eric, on returning to his business, creates a spreadsheet based on the same data.

(a) Explain two advantages that Jane's database will have over Eric's spreadsheet. **2**

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(b) Eric considers exporting his spreadsheet to a database. Explain how exporting data differs from copying and pasting data. **2**

.....  
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**Question 16 continues on page 8**

Question 16 (continued)

(c) The records below are examples of the contact details distributed at the seminar.

- Ms Judy Lee, Product Support Manager, EverOn PCs, GPO Box 939911 Sydney 2001 jlee@eop.com.au ph 02 9234 5678 fax 02 9234 8765
- Mr Fred Lake, Sales Consultant, SuperSystems P/L, 300 Main Rd, Riverfront 2987 lake.fred@supersys.com.au ph 02 4433 2211 fax 02 4433 1122

(i) List a set of fields that could be used to store this information. **2**

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(ii) The data will be used for mail merge purposes and will need to be sorted on the individuals' surnames and business locations. What additional information related to the data dictionary is necessary? **2**

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(d) Outline the main steps needed to undertake a mail merge. **4**

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**End of Question 16**

**Question 17** (9 marks)

Study the spreadsheet extract below that has been created by the financial controller of EverOn PCs.

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>1</b>	<b>Division</b>	<b>Revenue 1999</b>	<b>Revenue 2000</b>	<b>Difference</b>
<b>2</b>	North	4 000	3 000	(1 000)
<b>3</b>	South	6 000	6 000	0
<b>4</b>	East	7 000	11 000	4 000
<b>5</b>	West	3 000	4 000	1 000
<b>6</b>				
<b>7</b>	Average	5 000	6 000	1 000
<b>8</b>	Total	20 000	24 000	4 000

- (a) Write down the formula that is likely to be entered in:
- (i) cell D4 1  
 .....
  - (ii) cell C8 1  
 .....
- (b) What value would appear in cell B7 if the value of B4 was changed to 3 000? 1  
 .....
- (c) What should the financial controller do if '#####' appears in cell D8 instead of 4 000? 1  
 .....  
 .....

**Question 17 continues on page 10**

**Marks**

Question 17 (continued)

(d) What do the parentheses ‘( )’ in cell D2 indicate? **1**

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(e) The financial controller wants to find out how to create charts in the spreadsheet and reports for senior management.

(i) Suggest TWO sources of information that the financial controller could use to find out more about these features of spreadsheets. **2**

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(ii) Explain how a chart is created in a spreadsheet. **2**

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**End of Question 17**

**Question 18** (7 marks)

Use the following information to answer parts (a), (b), (c) and (d).

The following text was typed using a word processing package:

Two be or not too be  
That is the qustion allot of the time

- (a) Identify any errors that you would expect to be detected by the spell-check function. **1**

.....

- (b) Identify any errors that you would expect to be detected by the grammar-check function. **1**

.....

- (c) Outline the reasons for any differences between your answers to (a) and (b) by comparing and contrasting the role of each function. **2**

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- (d) Explain the role of a custom dictionary associated with a spell-check function. **1**

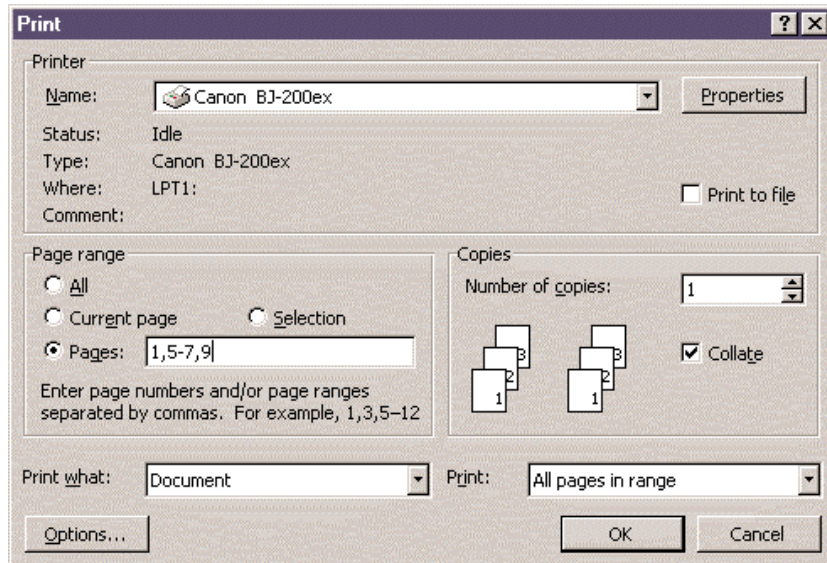
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**Question 18 continues on page 12**

Question 18 (continued)

Use the following screen capture to answer parts (e) and (f).



- (e) According to the information in the dialog box, how many pages of the current document will be printed? 1

.....

- (f) Describe how the document would be printed if the Number of copies was 2 and the check box alongside Collate was unchecked. 1

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**End of Question 18**

**Question 19** (7 marks)

The International Banking Corporation is a large commercial bank with offices and branches throughout Australia. This bank outsources all of its customer account database development.

- (a) Define the term *outsourcing*. **1**

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- (b) Identify TWO information technology functions, other than database development, that could be outsourced by this bank. **2**

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- (c) Describe TWO advantages and TWO disadvantages of outsourcing information technology functions. **4**

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## Section III

**Total marks (30)**

**Attempt TWO questions from Questions 20 – 22**

**Allow about 1 hour for this section**

Answer each question in a SEPARATE writing booklet. Extra writing booklets are available.

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In this section you will be assessed on how well you:

- demonstrate relevant knowledge and understanding
  - communicate ideas and information, using precise industry terminology and appropriate workplace examples
  - organise information in a well-reasoned and cohesive response
  - solve proposed issues or problems
- 

### **Question 20** (15 marks)

Backing up an entire file server on a daily basis can be time-consuming, and in most cases, unnecessary. XYZ Accountants do a full backup only once a month, while still performing daily backups.

Devise a strategy that the network manager should insist upon to ensure the backup operation is carried out as planned. This strategy should be written in the form of a report and take into account the issues of hardware, software, personnel and security.

### **Question 21** (15 marks)

The Information Technology Department of APC Industries is developing a new application that will track and manage the organisation's desktop computer equipment and supplies. The application will store information related to both computing hardware and software.

Your manager asks you to compose a memorandum to management, detailing the benefits the new application will bring to the organisation. Your memorandum should be formatted using appropriate business layout and take into account the critical information to be captured about APC Industries' desktop computers.

**Question 22** (15 marks)

A new peripheral device is to be connected to the general manager's computer. This device can be used for printing, faxing, scanning, and photocopying. The device has just arrived at the reception desk and you have been asked to collect it and connect it to the general manager's computer. The carton containing the device has an invoice attached. Inside the carton you find:

the device	a parallel cable
the manual	a power lead
the registration card	a CD-ROM.

Present a report to your supervisor, clearly detailing each step in the successful installation of the device onto the general manager's computer, and the issues of occupational health and safety relevant to the installation.

**End of paper**