

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

**2001**

**HIGHER SCHOOL CERTIFICATE  
EXAMINATION**

# Information Technology

## General Instructions

- Reading time – 5 minutes
- Working time – 2 hours
- Write using black or blue pen
- Board-approved calculators may be used
- Write your Centre Number and Student Number at the top of pages 9, 13 and 17

**Total marks – 80**

**Section I** Pages 2–7

**15 marks**

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

**Section II** Pages 9–18

**35 marks**

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

**Section III** Pages 19–20

**30 marks**

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

## Section I

15 marks

Attempt Questions 1–15

Allow about 15 minutes for this section

Use the multiple-choice answer sheet.

Select the alternative A, B, C or D that best answers the question. Fill in the response oval completely.

**Sample:**  $2 + 4 =$  (A) 2 (B) 6 (C) 8 (D) 9  
A  B  C  D

If you think you have made a mistake, put a cross through the incorrect answer and fill in the new answer.

A  B  C  D

If you change your mind and have crossed out what you consider to be the correct answer, then indicate the correct answer by writing the word **correct** and drawing an arrow as follows.

A  B  C  D   
*correct* ↙

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- 1 When a document is printed from a word-processing package, what controls the margins?
- (A) The printer driver
  - (B) The printer driver and the word-processing software
  - (C) The printer driver, the word-processing software and the printer port
  - (D) The printer driver, the word-processing software, the printer port and the processor speed

2 The following table shows a spreadsheet.

	A	B	C	D	E	F
1	<b>Cost Comparison</b>					
2	<b>CPU speed</b>	<b>Brand W</b>	<b>Brand X</b>	<b>Brand Y</b>	<b>Brand Z</b>	<b>Average</b>
3	866	\$3,095	\$3,195	\$2,095	\$3,295	=AVERAGE(B3:E3)
4	1000	\$3,595	\$3,695	\$2,595	\$3,995	
5	1400	\$4,495	\$4,495	\$3,995	\$4,995	
6						

Which formula will be stored in cell F5 if the formula at F3 is copied down column F using a relative copy command?

- (A) =AVERAGE(B3:E3)
  - (B) =AVERAGE(B5:E3)
  - (C) =AVERAGE(B3:E5)
  - (D) =AVERAGE(B5:E5)
- 3 Which component of a database is used for sorting?
- (A) Field
  - (B) Form
  - (C) Record
  - (D) Table

- 4** An employee who is inexperienced with an application package written specifically for your company approaches you for help to learn to use the package.

As a member of the IT support staff, what is the most effective advice you could give?

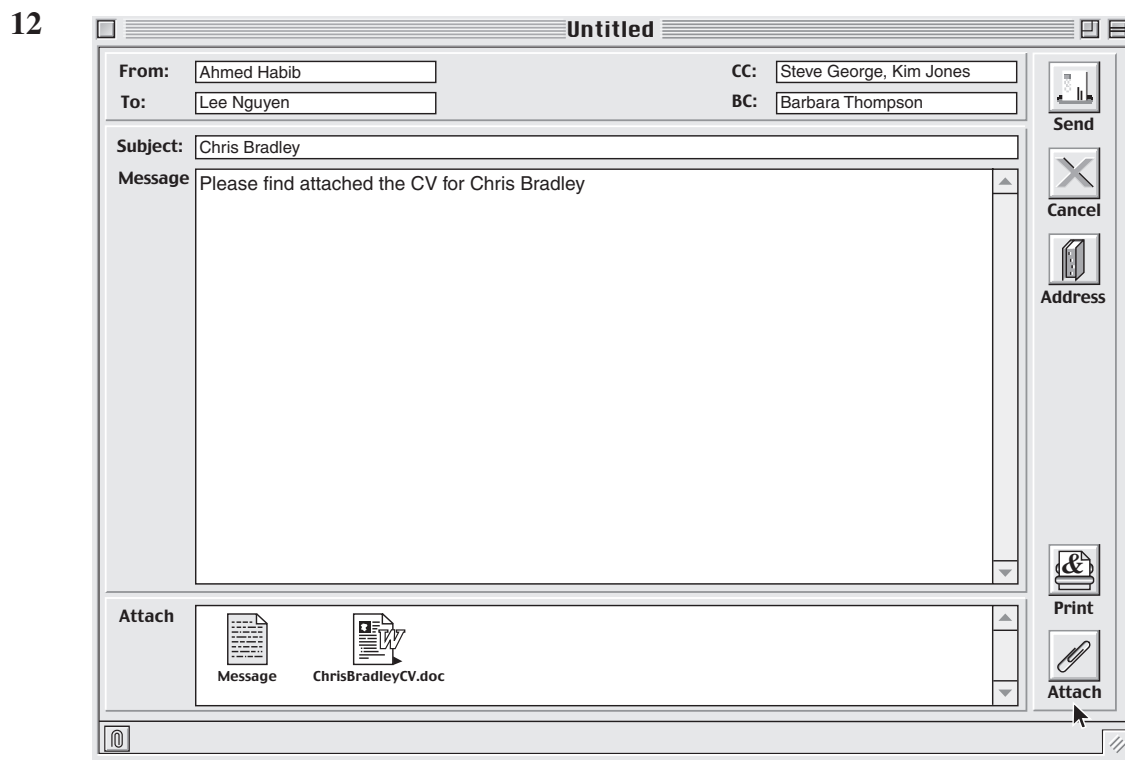
- (A) Use the online help facility in the package.
  - (B) Read the technical manual supplied with the package.
  - (C) Complete the online tutorial provided with the package.
  - (D) Ring the help desk of the company that wrote the package.
- 5** You wish to save the changed version of a document that was originally located on a standard CD-ROM. What is the best method to do this?
- (A) Read the document from the CD-ROM, modify the document, then save it to the hard disk.
  - (B) Read the document from the CD-ROM, modify the document, then save it back to the CD-ROM.
  - (C) Rename the document on the CD-ROM, read and modify the document, then save it to the hard drive.
  - (D) Copy the document from the CD-ROM to the hard drive, read the document, modify it and save it back to the CD-ROM.
- 6** You wish to install a hardware device that is NOT Plug and Play. Which of the following is commonly the first instruction given to install this device?
- (A) Install the driver.
  - (B) Install the device.
  - (C) Turn the power off.
  - (D) Disconnect the monitor.

Use the table to answer Questions 7 and 8. It contains specifications for black and white printers of the *same print quality*.

	<i>Purchase price</i>	<i>Pages per minute</i>	<i>Running cost per 100 pages</i>
Printer 1	\$159	3	\$5.20
Printer 2	\$299	4	\$3.60
Printer 3	\$499	4	\$4.00
Printer 4	\$3 995	28	\$0.50

- 7 Which printer would be the most economical to purchase for printing 100 000 pages of business documents per year for five years?
- (A) Printer 1
  - (B) Printer 2
  - (C) Printer 3
  - (D) Printer 4
- 8 Which printer would be the most economical to purchase where a single user prints 1000 pages per year for five years?
- (A) Printer 1
  - (B) Printer 2
  - (C) Printer 3
  - (D) Printer 4
- 9 Which of the following is the safest way to supply power to a printer?
- (A) Power board
  - (B) Extension lead
  - (C) Double adapter
  - (D) Standard power outlet

- 10 What is the purpose of compressing a file?
- (A) To encrypt the data
  - (B) To occupy less storage space
  - (C) To increase transmission time over a network
  - (D) To allow the file to be read by a variety of applications
- 11 You wish to include a graphic from another application into a word-processed document with the aim of automatically keeping the graphic up-to-date. What is the best method of doing this?
- (A) Link the graphic.
  - (B) Embed the graphic.
  - (C) Copy and paste the graphic.
  - (D) Import the graphic as a GIF file.



How many people will receive copies of the attachment?

- (A) 2
- (B) 3
- (C) 4
- (D) 5

- 13** Which of the following contains the essential elements for dealing with client requests?
- (A) Polite and courteous manner, effective verbal communication, use of questioning and passive listening
  - (B) Rapid turnaround of requests, use of questioning and active listening, effective verbal communication
  - (C) Rapid turnaround of requests, use of questioning and passive listening, effective non-verbal communication
  - (D) Polite and courteous manner, effective verbal and non-verbal communication, use of questioning and active listening
- 14** You have just taken delivery of a new printer for your company. What steps should you complete before connecting and installing the printer?
- (A) Register the warranty, enter the serial number into the equipment inventory
  - (B) Register the warranty, enter the serial number into the equipment inventory, check the contents of the box against the packing list
  - (C) Register the warranty, enter the serial number into the equipment inventory, install the device driver and check operation
  - (D) Register the warranty, check the contents of the box against the packing list and unscrew the outer casing to check that all components are present
- 15** Which of the following would be included in a daily partial backup of a hard disk?
- (A) All files
  - (B) All files changed in the past day
  - (C) All data files changed in the past day
  - (D) All program files changed in the past day

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Centre Number

**Section II**

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Student Number

**35 marks**

**Attempt Questions 16–19**

**Allow about 45 minutes for this section**

Answer the questions in the spaces provided.

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**Question 16 (7 marks)**

(a) Define the following:

**3**

Style guide .....

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Template .....

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Macro .....

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**Question 16 continues on page 10**

Question 16 (continued)

Use the material below to answer part (b). Both documents use 12 point text.

**Raw Document**

The 'qualified assessor' may consist of an assessment team in which one partner has assessor qualifications and knowledge and the other has technical competence in information technology.

The Information Technology Training Package is accompanied by a non-endorsed component. This resource contains suggested delivery strategies, including case studies and sample assessment instruments. In addition, the non-endorsed component of the training package includes a resource database. Non-endorsed components of the training package are available from Australian Training Products.

**Finished Document**

The 'qualified assessor' may consist of an **assessment team** in which one partner has assessor qualifications and knowledge and the other has technical competence in information technology.

The Information Technology Training Package is accompanied by a non-endorsed component. This resource contains suggested delivery strategies, including case studies and sample assessment instruments. In addition, the non-endorsed component of the training package includes a resource database. Non-endorsed components of the training package are available from Australian Training Products.

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- (b) List FOUR formatting changes needed to convert the raw document to the finished document. 4

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**End of Question 16**

**Question 17** (7 marks)

Use the diagram to answer Question 17.



- (a) Identify FOUR ergonomic problems or occupational health and safety (OH&S) concerns.

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**Question 17 continues on page 12**

Question 17 (continued)

- (b) Explain the possible health effects of NOT correcting ONE of the problems or concerns identified in part (a). **1**

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- (c) Outline TWO modifications that could be made to the workstation that would help to bring it into line with OH&S standards. **2**

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**End of Question 17**

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Centre Number

Section II (continued)

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Student Number

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Question 18 (10 marks)

Please turn over

**Question 18** (10 marks)

Use the tables to answer Question 18.

**Table: Contacts**

Title	Firstname	Lastname	Address	Town	State	Postcode	Email
Ms	Judy	Lee	GPO Box 93991	Sydney	NSW	2001	jlee@eop.com.au
Mr	Fred	Lake	300 Main Rd	Riverfront	NSW	2987	lake.fred@supersys.com.au
Dr	Isaac	McGrath	600 Victoria Rd	Gosford	TAS	7117	macca@pcc.com.au
Ms	Tranh	Nguyen	88 Cumberland Hwy	Gore Hill	NSW	2034	t.nguyen@cruz.com.au
Mr	Ahmed	Smith	12 Sussex St	Cammeray	QLD	4222	a.smith@Itcon.com.au
Ms	Bianca	Lee	88 Cumberland Hwy	Gore Hill	NSW	2034	b.lee@cruz.com.au

**Data dictionary for Table: Contacts**

Field name	Type	Width	Comment
Title	Text	4	Enter Mr, Ms, Dr, Rev, Sir, etc.
Firstname	Text	12	Enter the first name
Lastname	Text	20	Enter the last name
Address	Text	40	Enter the company address
Town	Text	16	Enter the name of the city
State	Text	3	Enter NSW, QLD, VIC, etc.
Postcode	Text	4	Enter the postcode
Email	Text	40	Enter the e-mail address

**Question 18 continues on page 15**

Question 18 (continued)

- (a) If a query were made of **Contacts** with postcodes between 2000 and 2030, how many records would be listed? **1**

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- (b) If all postcodes consist of four digits, why is the field TYPE set to 'Text' instead of 'Numeric'? **1**

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- (c) If the database were sorted in ascending alphabetic order on Lastname, which Lastname would appear first? **1**

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- (d) What are the advantages of splitting the contact's complete address into four fields (Address, Town, State, Postcode) rather than using a single field? **2**

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- (e) The following SQL statement is used to generate an e-mail contact list: **5**

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FROM Contacts  
WHERE State = "NSW"  
SELECT Firstname, Lastname, Email  
ORDER Lastname, Firstname
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Write the expected output, in correct order, in the space provided.

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**End of Question 18**

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Centre Number

Section II (continued)

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Student Number

**Marks**

**Question 19** (11 marks)

As a member of the company’s help desk you have received a phone call from a receptionist at one of the branch offices. The receptionist, who has a stand-alone computer, is unable to print documents.

- (a) Explain ONE software problem that may be causing the receptionist to be unable to print. **2**

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- (b) Identify THREE essential categories of information that must be recorded when logging the call. **3**

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- (c) Explain the benefits to your company from logging help desk calls. **2**

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**Question 19 continues on page 18**

Question 19 (continued)

- (d) Evaluate the effectiveness of questioning and listening techniques to support client requests and enquiries. **4**

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**End of Question 19**

## Information Technology

### Section III

**30 marks**

**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 your answers 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)

Your manager has asked you to draft a memorandum to staff explaining the company's policy and procedures for minimising the risk of computer virus infection and transmission.

Assuming that the company has only stand-alone computers, draft this memorandum.

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

You work in the IT support section of a large organisation with several branch offices. Head Office is implementing a new policy for archiving financial data. You are responsible for sending a Financial Archiving Kit to each branch office.

The Kit will include:

- a high-capacity, removable media storage device that connects to a USB port
- a USB cable
- a floppy disk containing drivers for the storage device
- five blank high-capacity disks
- a floppy disk containing a customised archiving utility
- a user guide.

The archiving utility includes a function to verify correct installation.

Draft the user guide, outlining the essential steps that the user must take to successfully install and test the Financial Archiving Kit.

**Please turn over**

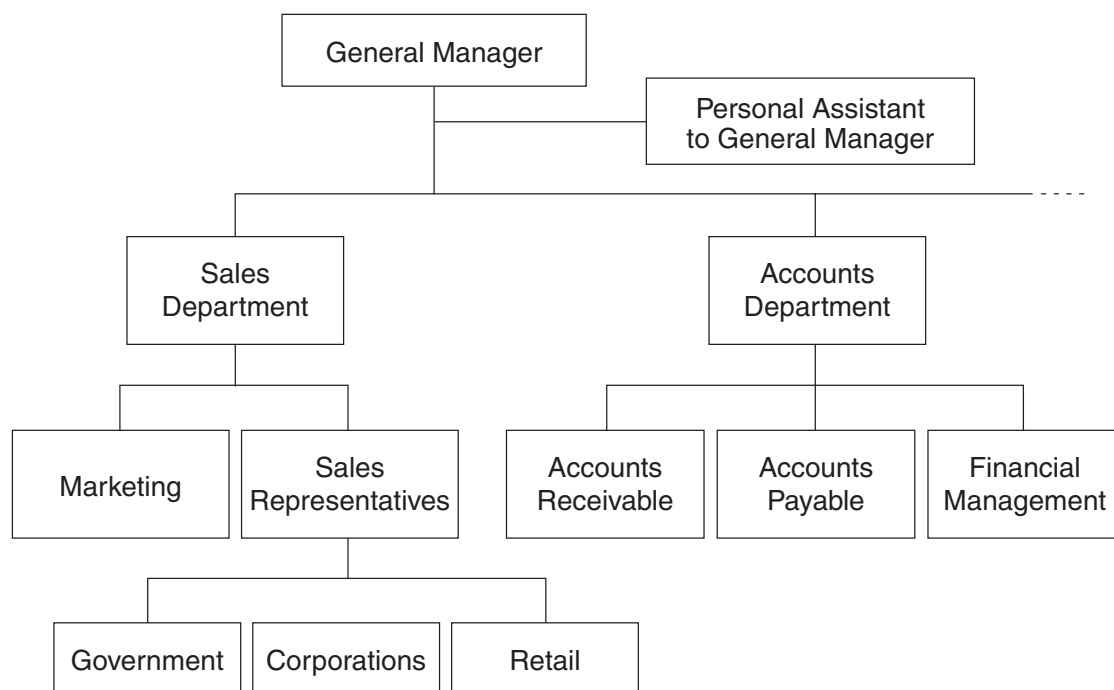
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In your answers you will be assessed on how well you:

- 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 22** (15 marks)

The structure of an organisation is outlined in the hierarchy diagram.



The organisation is seeking to improve data management. Write a report that proposes good file-management procedures. Include a simple sketch of a directory/folder structure for the Sales Department using information from the hierarchy diagram.

Explain and justify your proposals in relation to audit requirements, file attributes, incremental backup and file and folder passwords.

**End of paper**