

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

2002

**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 15

Total marks – 80

Section I Pages 2–6

15 marks

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

Section II Pages 9–17

35 marks

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

Section III Pages 19–25

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 ↙

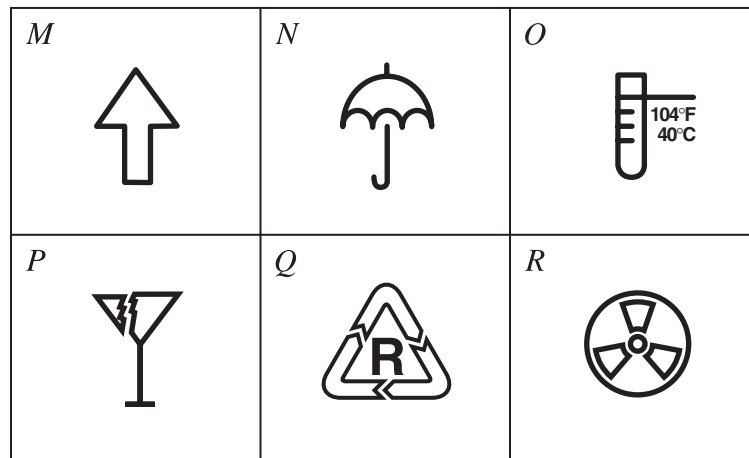
- 1** Which of the following is best to use to clean a dusty CD-ROM?
- (A) A cleaning fluid
 - (B) A wet paper tissue
 - (C) An abrasive cleaner
 - (D) A soft lint-free cloth
- 2** What are the advantages of a computer network over stand-alone computers?
- (A) Shared workstation memory and enhanced processing speed
 - (B) Shared printers, shared files and a shared Internet connection
 - (C) Shared Internet connection and minimised risk of virus infection
 - (D) Shared data files among many users and enhanced processing speed
- 3** What two pieces of information are needed to log on to a network?
- (A) User identity and password
 - (B) File server name and password
 - (C) Computer name and user identity
 - (D) Computer name and file server name
- 4** What is the best method to implement a minor software upgrade?
- (A) Run the upgrade install program.
 - (B) Copy the upgrade files to the hard disk.
 - (C) Install the upgrade, then uninstall the original application.
 - (D) Copy the upgrade files to the original disk, then reinstall the original application.

- 5** A sporting club has more than 10 000 members. Member details are kept in a spreadsheet. The limitations of the spreadsheet mean that the sporting club now needs to use a database.

What is the best method to move data from the spreadsheet file to ANY database management system?

- (A) Open the spreadsheet application with the database application.
 - (B) Print the spreadsheet file and then re-enter the data into the database file.
 - (C) Cut data from the spreadsheet file and then paste the data into a database file.
 - (D) Export the data with the spreadsheet application, then import this data into the database management system.
- 6** An operator uses the COPY function to put a section of text on the clipboard. Which of the following statements is true?
- (A) The text is available for word-processing applications only.
 - (B) The text is not on the clipboard because the CUT function was not used.
 - (C) The text will be available only when the original application is re-opened.
 - (D) The text is available for any application provided that the clipboard content has not been replaced.
- 7** What is the most practical method to remove a software application completely from a personal computer?
- (A) Uninstall the software application.
 - (B) Delete the software application icon.
 - (C) Remove the software application icon and delete the executable file.
 - (D) Reformat the disk drive on which the software application is installed.
- 8** An organisation purchases a single-user licence for a software application. Which statement best describes the organisation's rights and responsibilities?
- (A) The organisation may make one backup copy of the software and install it on one computer.
 - (B) The organisation may install the software application on all computers in all of their offices.
 - (C) The organisation may make backup copies of the software application and distribute the copies.
 - (D) The organisation may make one backup copy and install the software application on all computers in one office.

- 9 The manufacturer recommends that a replacement laser toner cartridge be stored vertically and in a place that has low humidity and is at room temperature.



Which combination of symbols best expresses these requirements?

- (A) *MNQ*
(B) *MNO*
(C) *MNR*
(D) *MOR*
- 10 What is the most likely cause of an erratic mouse cursor?
- (A) An unplugged mouse cable
(B) A broken wire in the mouse cable
(C) A dirty ball and rollers in the mouse
(D) An incorrectly installed mouse driver
- 11 What are the advantages of using a network drive rather than a local drive to store data files?
- (A) Increased data security, increased access time and centralised backup
(B) Increased access speed, increased data security and centralised backup
(C) Increased physical security, localised backup and sharing of files and folders
(D) Increased physical security, centralised backup and sharing of files and folders

- 12** Which file name extension indicates a graphic file?
- (A) .doc
 - (B) .tif
 - (C) .txt
 - (D) .xls
- 13** What is a keyboard shortcut?
- (A) A keyboard without a numeric keypad
 - (B) Any device that plugs into the keyboard
 - (C) An input device that replaces the keyboard
 - (D) A combination of keyboard strokes to perform a function
- 14** What file format should be used for a document intended for viewing with a web browser?
- (A) GIF
 - (B) HTML
 - (C) JPEG
 - (D) RTF
- 15** What is a style guide?
- (A) A user-defined format for a document
 - (B) A document with preset formatting and layout
 - (C) A set of specifications for the format and layout of a document
 - (D) A recorded set of keystrokes that are stored as unique keys to automate repetitive processes

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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.

Marks

Question 16 (9 marks)

- (a) How many changes would the following search and replace commands implement in the text below?

The realisation that at was only two weeks before at was time for the project to end worried Peta. The problem with attenuation would never be solved by then.

- (i) Find ‘at’ and replace with ‘it’. **1**
 - (ii) Find ‘ at’ and replace with ‘ it’. **1**
 - (iii) Find ‘ at ’ and replace with ‘ it ’. **1**
- (b) You have been asked to include a small copy of the company logo on the top of a new word processed document. The only electronic copy of the logo you can find prints an A4 logo. The logo file is very large and it was created over five years ago.
- (i) Identify ONE problem you may encounter using this old graphic file. **1**
.....
 - (ii) Recommend the appropriate action to overcome this problem. **2**
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Question 16 continues on page 10

Question 16 (continued)

(c) A company has set up a customer database as shown below.

Table: Customers

<i>FNAME</i>	<i>SNAME</i>	<i>ADDRESS1</i>	<i>ADDRESS2</i>	<i>ADDRESS3</i>	<i>POSTCODE</i>	<i>GENDER</i>
Helen	Long	21 Bui Rd	Rydale	NSW	2113	F
Mike	Smith	9 Jason St	Seven Hills	NSW	2146	M
James	Brown	78 Allen Av	Durham	VIC	3456	M
Les	Nguyen	2/3 Sia Rd	Victoria	WA	9877	F
Lee	Chien	90 Long St	Alkin	ACT	4987	F

The letter below is to be sent to all customers.

Dear <X>

I am pleased to announce the release of our new software package 'CONTROL'. This new product allows you to control all petty cash payments made by your office. The product will be demonstrated at the Holiday Inn Conference Centre on Monday 17 December 2002.

I encourage you to attend our demonstration. A discount is offered for any purchase at this demonstration.

Yours sincerely,

Jay Merino
Sales Manager
Financial Software Pty Ltd

(i) When creating this FORM LETTER in a word-processing application, to what file should it be linked? **1**

.....

(ii) What information from the database must be inserted into the FORM LETTER at 'X'? **1**

.....

(iii) Which customer will be identified using the following SQL statement? **1**

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SELECT "FNAME"
FROM Customers
WHERE State = "NSW"
AND Gender = "M"
```

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End of Question 16

Question 17 (6 marks)

- (a) Identify ONE graphic file format commonly used in creating a webpage. **1**

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- (b) Distinguish between the Internet and an intranet. **2**

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- (c) Discuss the factors to be considered when preparing a document for electronic publication on the Internet or an intranet. **3**

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Centre Number

Section II (continued)

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Student Number

Marks

Question 18 (9 marks)

- (a) Outline the purpose of Equal Employment Opportunity (EEO). **2**

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- (b) Identify THREE types of discrimination that can occur in the workplace.

- (i) **1**
(ii) **1**
(iii) **1**

- (c) Explain the rights of employees in relation to discrimination in the workplace. **4**

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Centre Number

Section II (continued)

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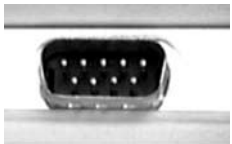
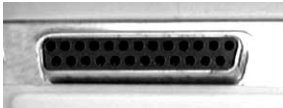
Student Number

Question 19 (11 marks)

Please turn over

Question 19 (11 marks)

The ports shown are ports used on Macintosh and IBM-compatible PCs.

	
Port A	Port B
	
Port C	Port D
	
Port E	Port F
	
Port G	Port H

Question 19 continues on page 17

Question 19 (continued)

- (a) Select any four of the ports and complete the table. 4

<i>Port</i>	<i>Name</i>	<i>Typical device connected</i>

- (b) Select ONE of these four ports and provide reasons why the device you selected was designed to use this port. 2

Port

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- (c) Compare and contrast the characteristics of serial and parallel data transmission. 5

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End of Question 19

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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.

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)

Please turn over

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)

The manager of the IT Support section has written the memo on page 21 to the PC Support Supervisor. It is to help staff installing software on computers used by the Executive Management team.

Develop a comprehensive action plan for PC support staff to successfully complete the installation process. Your plan should address all issues, including those identified by the memo. Justify each step of your plan.

Question 20 continues on page 21

Memo

To: PC Support Supervisor **Date:** 9/9/2002
From: Manager, IT Support **Extension:** 4212
Subject: Installation of new Executive Information System Package on
Executive Management Team Computers

The company has purchased a new Executive Information System package to replace the package we have been using for the past five years. PC Support's role is to install the package on the PCs for the Executive Management Team. Networking these PCs is not an option at present.

For your information and guidance:

- There are 16 new stand-alone computers for the Executive Management Team. Only the most senior executives use these PCs as they store confidential information.
- Contact Sam Thompson (Senior Executive Secretary, extension 4505) to arrange suitable times for access to each computer. This installation must cause as little disruption as possible to the executives.
- These PCs are not networked so your staff will need to establish installation procedures and prepare materials. The installation package is approximately 500 MB and is located on the file server Jovis in the EIS Uninstalled folder. All documentation, including the system requirements, is in this folder. It is important to follow the recommended backup precautions in the installation manual.
- You will need to customise each installation and arrange data migration from the old to the new package for each user. Each Executive will have different requirements.
- Funds are available for any hardware upgrade that may be necessary to run this important package, but as these PCs are not on the help desk assets tracking system we do not yet know what is required. I must be notified of any upgrade requirements at least one week before they are needed.

For any queries regarding the package itself and its hardware and software requirements please contact the EIS Project Office (extension 2063). For queries or problems with the hardware, system software or the installation, please contact me.

End of Question 20

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 21 (15 marks)

The help desk in an organisation uses the screen below to log reports from users who are experiencing difficulties.

Critically analyse how accumulated help desk data collected by this form could benefit the organisation.

Case No: 13 JEFF CAN'T ACCESS THE NETWORK

Case Details

Origin

User: KA1727 JONES, JEFF
User ID: KA1727
Name: JONES, JEFF
E-Mail: jeffj@homewares.biz
CC/Place: SALES Phone: 5050
Workstation: WS1002 Printer: PR9002
Resource: WS1002
Summary: JEFF CAN'T ACCESS THE NETWORK

Service Categories

Level 1: CALL LOGGING
Level 2: INFO
Level 3: PC

Severity

High Medium Low

Due Date: 09/09/2002 17:50 Friday
Creator: ADMIN ADMIN

Case Text Tracking Audit Trail User History Resource History Dependency Hyperlink

Add Text *** 09/09/2002 16:49 ***ADMIN***
Difficulty with accessing the network.

Record: 1 of 1

Question 22 (15 marks)

An organisation purchased a high volume laser printer in November 2001. The printer is shared by many users and is in a common area. The maintenance of this laser printer is the responsibility of the IT department. A copy of the manufacturer's recommended maintenance schedule and the log of the maintenance performed on the laser printer are provided on pages 24 and 25. A number of problems have occurred with the laser printer, and these are documented on the maintenance log.

With reference to the manufacturer's recommended maintenance schedule and the log of maintenance performed, prepare a report for your manager critically analysing the situation with the laser printer. Your report should justify recommendations for the future use and management of the laser printer.

Question 22 continues on page 24

Manufacturer's Recommended Maintenance Schedule

Congratulations on your purchase of a new Superfast high volume laser printer!!

To get the best performance and highest quality prints from your new printer please follow the maintenance instructions below.

Every 6000 to 10 000 pages

Replace the toner cartridge when the message 'TONER LOW' is displayed in the instruction panel. Each toner cartridge will print between 6000 and 10 000 pages depending on the amount of print on a page. The higher page volume occurs if print coverage is 5% or lower. When replacing the toner cartridge, firstly remove the old cartridge, then clean the area of the printer unit, then insert the new cartridge. Follow the instructions on the inside of the lid to remove, clean and insert the new cartridge. Use only authentic *Superfast* toner cartridges. Use of substitute cartridges will invalidate your warranty. *Superfast* toner cartridges are available only from your *Superfast* dealer and cost \$50.00 per cartridge.

Every 100 000 pages

At 100 000 pages the message 'PRINTER UNIT NEEDS REPLACING' will appear in the instruction panel. When replacing the printer unit, first remove the old unit, then clean the area of the printer unit, then insert the new printer unit. Follow the instructions on the inside of the lid to remove, clean and insert the new printer unit. Use only authentic *Superfast* printer units. Use of substitute printer units will invalidate your warranty. *Superfast* printer units are available only from your *Superfast* dealer and cost \$350.00 per unit.

Every 200 000 pages

At 200 000 pages the message 'PRINTER MAINTENANCE KIT REQUIRED' will appear in the instruction panel. You need to replace the printer unit and the print rollers at A, B, C and D. The Printer Maintenance Kit includes a printer unit, rollers, cleaning equipment and instructions. It is available only from your authentic *Superfast* dealer and costs \$575.00.

Every 600 000 pages

At 600 000 pages the message 'CALL YOUR SUPERFAST CENTRE FOR A FULL SERVICE' will appear in the instruction panel. You must call your *Superfast* dealer and arrange for a qualified service engineer to visit and perform full maintenance on your printer. The engineer will replace all worn parts, fully clean and adjust the printer so that it will give another 2 years of trouble free operation. A full service costs \$1250.00.

Question 22 (continued)

LASER PRINTER MAINTENANCE LOG

<i>Details</i>	<i>No. Copies</i>	<i>Details</i>	<i>Who</i>
20/11/01	100	Service technician installed and tested, trained John and Sue	Joe
27/11/01	10 900	New toner, cleaned	Sue
2/12/01	16 900	New toner, cleaned	Sue
12/12/01	23 716	Cleaned, new toner	John
17/12/01	30 261	Cleaned, new toner	John
9/1/01	38 674	Cleaned, new toner	John
23/1/01	50 246	New toner	Ali
9/2/02	61 983	New toner	Ali
		New toner bottle	Bob
27/03/02	102 643	New toner	Ali
31/03/02	109 173	New toner bottle	Bob
25/04/02	147 217	Copies dirty, streaky. Cleaned and new toner	Ali
30/04/02	149 763	Copies splotchy, dirty. Cleaned, new toner	Bob
3/5/02	159 763	Copies dirty, streaky. Rang for service	Ali
3/5/02	159 820	Service technician replaced printer unit, cleaned, cost including labour \$590.00	Joe
10/5/02	164 020	Cleaned and replaced toner bottle	Ali
5/5/02	170 127	Cleaned and replaced toner bottle	Ali
22/05/02	177 619	New toner bottle	Jim
26/06/02	194 723	New toner	Ali
2/8/02	240 723	Pages creased, replaced paper	Jim
5/8/02		Pages torn and jamming	Ali
7/8/02		Pages jamming every time we print double sided. Use other printer	Jim
8/8/02	241 043	This printer is useless, I've cleaned it and cleared the jams but it keeps on jamming. Called for service. Use slow printer in back office.	Jim
8/8/02	241 043	Service technician replaced worn drum and rollers, installed maintenance kit, cleaned and adjusted. Cost including labour \$2575.	Joe

Filename: Laser Printer Maintenance Log Page 1 of 1 Date Printed: 9/9/2002

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