2009

HIGHER SCHOOL CERTIFICATE
EXAMINATION

Information Technology

Total marks – 80

Section I Pages 2–5

15 marks
• Attempt Questions 1–15
• Allow about 15 minutes for this section

Section II Pages 9–16

35 marks
• Attempt Questions 16–19
• Allow about 45 minutes for this section

Section III Pages 17–18

30 marks
• Attempt TWO questions from Questions 20–22
• Allow about 1 hour for this section

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, 11, 13 and 15

Section I

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

Use the multiple-choice answer sheet for Questions 1–15.

1   An extract of a spreadsheet is shown.

	A	B	C	D	E
1		Greater Metropolitan Office Supplies Company			
2					
3		Items	Costs	Quantity	Subtotal
4		Pens	$3.00	2	$6.00
5		Pencils	$5.00	2	$10.00
6		Rulers	$6.00	1	$6.00
7			TOTAL		

What formula was used in cell E4 to achieve the displayed result?

(A)   C4 ∗ D4

(B)   B4 ∗ D4

(C)   = C4 ∗ D4

(D)   = B4 ∗ D4

2   What should be done to successfully convert the format of an image from BMP to JPEG?

(A)   Compress the file

(B)   Rename the image

(C)   Use the 'Save As' command

(D)   Change the image's file extension

3 An ICT service technician has been sent to a desktop publishing company to solve a printing problem.

Which of the following details would the technician record at the end of the visit?

(A) Client contact details, problem description, progress of work

(B) Client contact details, company mission statement, progress of work

(C) Problem description, mission statement, company management structure

(D) Client contact details, progress of work, company management structure

4 Which of the following best describes a *driver*?

(A) Software that allows the user to control the operating system

(B) Hardware that allows the user to control the operating system

(C) Software that allows interaction between peripheral devices and the operating system

(D) Hardware that allows interaction between peripheral devices and the operating system

5 Which of the following is an essential component of the communication cycle?

(A) A message

(B) An interpreter

(C) An email account

(D) An internet connection

6 Why would a switch be used in a network in preference to a hub?

(A) To reduce network traffic

(B) To prevent the spread of all viruses

(C) To connect a computer directly to the internet

(D) To manage password security at a workstation

7 A user wants to detect and clean a virus-infected file as it is opened.

Which of the following procedures would best achieve this?

(A) Schedule a local virus scan

(B) Utilise a real-time virus scan

(C) Perform a scheduled network virus scan

(D) Perform a complete virus scan of all hard disks

8   A company regularly updates a user reference guide. Some staff are confused about which of the printed documents is the most current.

What feature should be included in the reference guide to eliminate this confusion?

(A)   Date printed

(B)   Version number

(C)   Author's name

(D)   Copyright information

9   A company's word-processed daily report contains a graph from a spreadsheet. The report needs to display the most recent information from the spreadsheet.

What feature should be used to insert the most up-to-date graph?

(A)   Copy and paste

(B)   Mail merge wizard

(C)   Automated importing

(D)   Linking and embedding

10   Chris has entered into a legally binding agreement with a small family business to supply ICT support services.

Which type of industry document is she likely to have signed?

(A)   Contract

(B)   Industrial award

(C)   An EEO agreement

(D)   Outsourcing agreement

11   Which of the following is a characteristic of effective user documentation?

(A)   Produced using recycled paper

(B)   Available in multiple languages

(C)   Written from the manufacturer's point of view

(D)   Provides a complete technical repair reference

12 An ICT company requires its service staff to contact clients after each service to ensure that work has been satisfactorily completed.

Which of the following actions would achieve this requirement?

(A) Develop a client list

(B) Immediately return the client's follow-up call

(C) Telephone the client within a week of the service

(D) Advertise new updated services within the week after the service

13 Which of the following would indicate that the motherboard battery has failed?

(A) Operating system passwords are lost.

(B) Files on the hard disk are lost or corrupted.

(C) Hardware settings, including virtual memory, revert to default values.

(D) Hardware settings, including current date and time, revert to default values.

14 The OHS committee at a workplace has identified a hazard and decided to minimise the risk by isolating the hazard.

Which hierarchy of risk control measure did the committee implement?

(A) Level 1

(B) Level 2

(C) Level 3

(D) Level 4

15 A software company states '1 GB RAM minimum and 2 GB RAM recommended' for its new operating system software.

The likely outcome of attempting to install this operating system on a computer with 1 GB RAM would be that

(A) files will fail to save.

(B) peripheral devices will fail to work.

(C) the operating system will fail to install.

(D) the computer will not run at its optimum performance.

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Information Technology

Section II

Centre Number

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

Student Number

Answer the questions in the spaces provided.

Question 16 (11 marks)

(a)   The table shows entries in a staff database.

Table: Staff

Name	Address	Suburb	State	Salary	Postcode
Steve Cameron	1 Jordan Place	Zetland	QLD	$85 000	4235
Mary Tai	3a Flynn Road	Kelsey	NSW	$90 000	2490
Ashley Lee	1 Jones Street	Eden	ACT	$75 000	2555
Greg Rania	34 Jules Street	Lindsay	WA	$77 000	6043

(i)   How many staff members either live in NSW OR earn greater than $80 000?   **1**

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(ii)   The table is to be sorted by the Address field in descending order.   **2**

Which staff member would appear second from the bottom?

....

(iii)   The table needs to be sorted in ascending order according to the staff member's last name.

Describe modifications to the table to achieve this.   **2**

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Question 16 continues on page 10

– 9 –

Question 16 (continued)

(b)   (i)   In the space provided below draw an appropriate data entry form for the staff table.   **2**

(ii)   Which field in the table would best be included as a drop-down menu on the data entry form? Justify your answer.   **2**

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(iii)   Explain ONE advantage of entering data into the form rather than directly into the table.   **2**

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End of Question 16

Centre Number

Student Number

Question 17 (10 marks)

(a)   You are responsible for creating a slideshow presentation to staff and have been supplied with the following:

   •   a word-processed file that includes a company logo

   •   printed photographs of hardware

   •   current staff photos stored on a digital camera.

Outline the steps involved in incorporating these images into the slideshow presentation.

   (i)   Company logo   **2**

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   ....

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   (ii)   Printed photographs   **2**

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   ....

   (iii)   Digital camera images   **2**

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– 11 –

Question 17 (continued)

(b)   Describe TWO differences between the BMP file format and the GIF file   **4**
       format.

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End of Question 17

Question 18 (6 marks)

(a)   Identify FOUR details, other than the client's name, that need to be recorded by   **4**
a Help Desk operator.

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(b)   A client has lodged the following comment with the Help Desk.   **2**

*The shortcut to my sales folder has disappeared from the desktop
of my computer.*

Justify the choice of one-to-one instruction rather than referring the client to the
user manual as a means of solving this problem.

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Section II (continued)

Centre Number

Student Number

Question 19 (8 marks)

(a)   Identify TWO items of information, other than location, that should be provided   **2**
to emergency services when reporting an accident at work.

(i)   ....

(ii)   ....

(b)   Describe ONE role of WorkCover in relation to occupational health and safety.   **2**

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Question 19 (continued)

(c) The following is an extract from the occupational health and safety policy of a large company.

4

> - Staff members are required to contribute to the cost of safety signage for the workplace.
>
> - All decisions relating to occupational health and safety are made by management.
>
> - Employers are responsible for ensuring the working environment is safe and without risk to health.
>
> - Employees are responsible for ensuring that they have adequate OHS training.

Rewrite the policy extract making any necessary changes for it to fully comply with the *Occupational Health and Safety Act 2000* (NSW).

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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.

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)

You have been asked to provide advice to the IT team on the creation of a user guide for a customised software application. The guide is to be prepared as both a website and a paper-based document.

Using examples, write a report to the team comparing and contrasting the following features of online and paper-based documents:

- multimedia content

- text format

- layout

- usability.

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 21 (15 marks)

As a new member of the IT department you have been given the task of installing an operating system on client computers.

Your supervisor has asked you to prepare a report detailing important elements of this task.

In your report consider the following areas:

• the purpose and function of an operating system

• the installation process

• basic diagnostic tests to ensure correct installation

• reasons for and methods of obtaining client feedback.

Question 22 (15 marks)

You have been asked to provide advice prior to the installation of a file server which is to contain critical data.

Write a report evaluating suitable methods for protecting the server and its data.

In your answer consider the following areas:

• environmental conditions

• power supply

• software and hardware issues

• user access.

End of paper