

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

2013

**HIGHER SCHOOL CERTIFICATE
EXAMINATION**

Information Technology

General Instructions

- Reading time – 5 minutes
- Working time – 2 hours
- Write using black or blue pen
Black pen is preferred
- Board-approved calculators may be used
- Write your Centre Number and Student Number at the top of pages 9, 11, 13 and 15

Total marks – 80

Section I Pages 2–6

15 marks

- Attempt Questions 1–15
- Allow about 20 minutes for this section

Section II Pages 9–16

35 marks

- Attempt Questions 16–19
- Allow about 50 minutes for this section

Section III Page 17

15 marks

- Attempt Question 20
- Allow about 25 minutes for this section

Section IV Page 18

15 marks

- Attempt Question 21
- Allow about 25 minutes for this section

Section I

15 marks

Attempt Questions 1–15

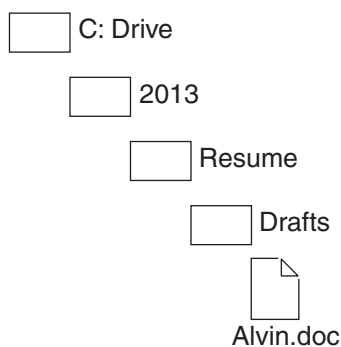
Allow about 20 minutes for this section

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

- 1 Which of the following is the best strategy to reduce manual handling injuries in the workplace?
 - (A) Two people sharing a heavy load
 - (B) Unpacking heavy objects before moving them
 - (C) Only taking delivery of packages below a safe weight
 - (D) Reporting heavy packages to the workplace safety officer

- 2 Which of the following roles would be most difficult for an IT department to outsource?
 - (A) Analyst
 - (B) IT Manager
 - (C) Web Designer
 - (D) IT Helpdesk Operator

- 3 This diagram represents the file path for a saved file.



What is the correct file path?

- (A) C:/Alvin.doc
- (B) C:/Drafts/Alvin.doc
- (C) C:/2013/Drafts/Resume/Alvin.doc
- (D) C:/2013/Resume/Drafts/Alvin.doc

- 4 Which of the following is most likely to be covered in an organisation's work health and safety policy?
- (A) Time in front of a computer
 - (B) Information about superannuation
 - (C) Protocols for dealing with suspicious emails
 - (D) Guidelines surrounding the personal use of the internet
- 5 Which of the following would provide the most up-to-date and reliable online documentation?
- (A) A telephone helpdesk operator
 - (B) A troubleshooting manual found on an installation CD
 - (C) A downloadable user manual on the developer's website
 - (D) An online blog hosted by users for posting questions and answers
- 6 A receptionist complains that it is hard to hear clients on the telephone when the printer is operating.
- Which of the following actions would be most cost-efficient in solving this problem?
- (A) Disregard the complaint
 - (B) Relocate the printer to another area
 - (C) Install a custom-built noise reduction cover
 - (D) Provide the receptionist with a hands-free telephone kit
- 7 What is the function of the CMOS battery in a personal computer?
- (A) It prevents virus attack to the CMOS during startup.
 - (B) It provides power to the hard drive for initial startup.
 - (C) It prevents loss of files when the computer is shut down.
 - (D) It saves the basic input/output system (BIOS) settings when the computer is shut down.

8 A manager repeatedly sends the following email to an employee:

You are working too slowly. You never meet deadlines! There are plenty of people who would do your job better than you.

What form of harassment is this?

- (A) Physical
- (B) Psychological
- (C) Sexual
- (D) Verbal

9 What method should a software company employ to ensure that a user always has the most up-to-date software?

- (A) List scheduled updates on the company's website
- (B) Have the user register the software for automatic updates
- (C) Regularly email the user any fixes or changes to the software
- (D) Supply the user with a copy of the software each time there is a new version

10 A helpdesk operator cannot solve a problem submitted by a client.

What should the helpdesk operator do next?

- (A) Set the problem to a high priority
- (B) Note the problem as technically complex
- (C) Check logs for problems reported by this client
- (D) Pass the problem on to someone more able to solve it

11 What is ONE purpose of hard disk maintenance?

- (A) To clean the surface of the hard disk
- (B) To organise files into alphabetical order
- (C) To delete old, unused and temporary files
- (D) To clean space between files to increase performance

- 12** What must be checked when selecting the appropriate version of operating system software?
- (A) Operating system hardware requirements
 - (B) Operating system technical specifications
 - (C) The level of support provided with the operating system
 - (D) The End User Licence Agreement (EULA) of the operating system
- 13** A virus has been removed from a computer.
- What should be done next to rebuild the computer?
- (A) Update applications
 - (B) Reinstall the operating system
 - (C) Recover any lost or damaged files
 - (D) Return the computer to the customer
- 14** Which instruction explaining how to copy text is written in the style required for user documentation?
- (A) Select the required text, press control-C.
 - (B) Control-C is pressed after the text is selected.
 - (C) You should select the text then press control-C.
 - (D) The text should be selected before control-C is pressed.

- 15 **Image 1** is a spreadsheet created in Operating System A, while **Image 2** is the same file opened with a text editor in Operating System B.

Image 1
Operating System A

	A	B
1	Shopping List	
2	Item	Price
3	Eggs	\$6.95
4	Bread	\$2.95
5	Milk	\$3.50
6	Apples	\$4.90
7		

Image 2
Operating System B

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Shopping List,  
Item,Price  
Eggs,$6.95  
Bread,$2.95  
Milk,$3.50  
Apples,$4.90
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Which feature has been demonstrated in the images above?

- (A) File sharing
- (B) File functionality
- (C) File interoperability
- (D) File transfer protocol

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Centre Number

Section II

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Student Number

35 marks

Attempt Questions 16–19

Allow about 50 minutes for this section

Answer the questions in the spaces provided. These spaces provide guidance for the expected length of response.

Question 16 (8 marks)

The helpdesk of an organisation has assigned a technician to investigate the printer problem described in the helpdesk request below.

Helpdesk Request

Ticket Number: 6544	Open Date: 10 November 2013	Open Time: 10:30 am
Client: Josephine Wigley	Department: Sales	Location: Office 4A
Equipment Type: Multi-function Printer	Make/Model: Hijatsu 4150	Asset Number: 986532
Description of issue: User reports the equipment will not work. The LCD display on the printer shows the following – Error Code 345T		
Initial action: Technician sent to investigate		

(a) What immediate actions should the technician take?

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Question 16 continues on page 10

Question 16 (continued)

- (b) Justify additional fields that should be included in order to close the helpdesk request. **3**

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- (c) It is found that a number of printers of the same model have been reported with the same error code. **3**

Explain appropriate actions that the organisation could take.

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End of Question 16



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Information Technology

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Centre Number

Section II (continued)

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Student Number

Question 17 (8 marks)

- (a) What is a *virus signature*? **1**

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- (b) Identify TWO types of viruses and explain how each can affect a computer system. **3**

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- (c) Describe strategies that could maximise virus protection on a computer. **4**

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Centre Number

Section II (continued)

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Student Number

Question 18 (8 marks)

- (a) The image shows a powerboard at a worksite.



The table shows how the risk level (low, high and medium) of a hazard is determined based on the type of injury and the likelihood of the injury occurring.

		<i>Injury</i>		
		Death	First Aid	No Injury
<i>Likelihood</i>	Likely	HIGH RISK	HIGH RISK	MEDIUM RISK
	Possible	HIGH RISK	MEDIUM RISK	LOW RISK
	Unlikely	MEDIUM RISK	LOW RISK	LOW RISK

- (i) Using the table, identify a risk level for the hazard shown in the image. **1**
 Justify your response.

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Question 18 continues on page 14

Question 18 (continued)

- (ii) Complete the hazard identification and control measures for the powerboard shown in the image.

4

Date: <i>11/10/2013</i>
Location: <i>Workstation 3</i>
Hazard identified:
Appropriate control measure to eliminate risk:
Appropriate control measure to minimise risk:
Other control measure:

- (b) Discuss the issues associated with the use of a surge-protected powerboard for a computer system.

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End of Question 18

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Centre Number

Section II (continued)

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Student Number

Question 19 (11 marks)

- (a) Distinguish between *customisation* and *optimisation* for a computer system. Use examples in your answer. **4**

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- (b) Why is it necessary to update a device driver periodically? **3**

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Question 19 continues on page 16

Question 19 (continued)

- (c) Explain the backup procedures required both before and after the installation of a new operating system. **4**

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End of Question 19

Information Technology

Section III

15 marks

Attempt Question 20

Allow about 25 minutes for this section

Answer the question in a writing booklet. Extra writing booklets are available.

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

- demonstrate knowledge and understanding relevant to the question
 - communicate ideas and information using relevant workplace examples and industry terminology
 - present a logical and cohesive response
-

Question 20 (15 marks)

A medical centre has used a short timeframe to implement new custom software for managing patient records.

A survey of the 12 staff found that the quality of the support documentation was poor and the staff have not yet been trained in its use.

Provide detailed advice to management explaining how the software, support documentation and staff training could have been implemented more effectively.

Please turn over

Section IV

15 marks

Attempt Question 21

Allow about 25 minutes for this section

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

Question 21 (15 marks)

A business with four staff and four laptops has moved into a new location.

- (a) Describe the hardware needed to enable reliable internet connectivity for this business. **3**
- (b) The four laptops need to be able to print to a networked printer automatically. Outline the procedure for adding this printer to the four laptops. **4**
- (c) The business wants a quick reference guide to remind its staff of the acceptable use of the internet. Create this quick reference guide and justify its content. **8**

End of paper