



**INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY
HIGHER LEVEL AND STANDARD LEVEL
PAPER 1**

Thursday 13 November 2008 (afternoon)

1 hour

Candidate session number

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INSTRUCTIONS TO CANDIDATES

- Write your session number in the boxes above.
- Do not open this examination paper until instructed to do so.
- Answer all the questions in the spaces provided.



1. Barbara Smith is a web master who designs and maintains web sites. She is thinking of buying a new personal computer system that she can use to work from home. She is considering purchasing the computer system that appears in the following advertisement.



Principales características	Especificaciones	Más detalles
<ul style="list-style-type: none"> • Procesador 515 Intel Pentium 4 • Velocidad de reloj: 2,93 GHz • Bus frontal de 533 MHz • Memoria caché de 1 MB • RAM DDR de 512 MB • Disco duro SATA de 160 GB (7200 RPM) • Unidad DVD doble capa, múltiples formatos, regrabadora • Gráfica de Intel incorporada • Microsoft Windows XP Home Edition • Lector 8 en 1 de tarjetas para medios 		

[© 2008 Dell Inc. All Rights Reserved]

(a) (i) Identify the operating system used in this computer system. [1 mark]

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(ii) State the amount of secondary storage in this computer system. [1 mark]

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(b) Describe the purpose of the following in the production and maintenance of the web pages:

(i) HTTP [2 marks]

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(Question 1(b) continued)

(ii) FTP.

[2 marks]

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(c) If Barbara Smith were to purchase the computer in the advertisement, explain why the system is unlikely to meet her IT needs within a few years.

[4 marks]

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2. Many organizations use multimedia training packages to keep the skills of their staff up to date. These training packages can take up a great deal of disk space and they have to be provided on CD-ROM, DVD, the company’s intranet or on the World Wide Web.

(a) Define the term *multimedia*. [2 marks]

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(b) Describe **two** methods that can be used to reduce the amount of disk space occupied by a multimedia training package. [4 marks]

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(Question 2 continued)

- (c) Explain why some organizations prefer to train their staff using a multimedia training package instead of providing face-to-face training with a human instructor.

[4 marks]

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3. *Old-but-New* is a car dealership that specializes in selling second hand (used) cars with low mileages. It advertises its cars in local papers and in advertising brochures. The owners of the company have decided to extend its advertising by displaying its cars on a web site. The images on the web site will be stored in JPEG format.

(a) Identify **two** reasons why the images would be stored in JPEG (jpg) format. *[2 marks]*

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(b) Describe **two** advantages of advertising on web sites instead of using an advertising brochure. *[4 marks]*

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(Question 3 continued)

- (c) The *Old-but-New* car dealership has decided to produce its own web advertisements rather than use a specialist web design company. Explain why the dealership has taken this decision.

[4 marks]

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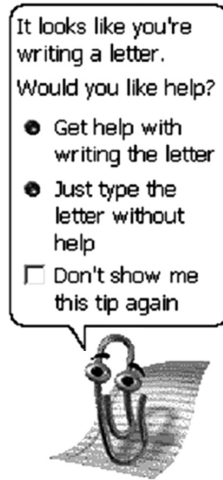
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4. Artificial intelligence is one way in which computer systems are used to solve problems. It is used in many different situations, including on personal computer systems. An example of artificial intelligence is the use of the office assistant (Clippy) in Microsoft Office.



[Microsoft product screen shot reprinted with permission from Microsoft Corporation.]

- (a) Define the term *artificial intelligence*. [2 marks]

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- (b) Describe how Clippy could tell that the user was writing a letter. [4 marks]

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(Question 4 continued)

(c) The following is a record of a conversation.

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Eliza: Hi. I'm Eliza. Tell me your problems!  
You : I have a headache  
Eliza: You really have a headache?  
You : Yes I do.  
Eliza: Do you in your dreams, too?  
You : Yes there as well.  
Eliza: Are you sure?  
You : Absolutely.  
Eliza: Perhaps you would like to talk about a problem?  
You : I certainly would  
Eliza: What does this mean for you, saying " you certainly would "?  
You : It means Yes I do  
Eliza: Does it help you to do?
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Explain why it is possible that Eliza in this conversation is not a human being but really a computer running artificial intelligence software.

[4 marks]

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