

Nama : \_\_\_\_\_

No. KP : \_\_\_\_\_

3765/1  
Information And Communication Technology  
Kertas 1  
September  
2008  
2 ½ jam



JABATAN PELAJARAN NEGERI JOHOR

PEPERIKSAAN PERCUBAAN

SIJIL PEPERIKSAAN MALAYSIA 2008

**INFORMATION AND COMMUNICATION TECHNOLOGY**

**Kertas 1**

Dua jam tiga puluh minit

**JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU**

**Arahan**

1. Kertas soalan ini mengandungi 3 bahagian.
2. Jawab **SEMUA** bahagian.
3. Anda dinasihati supaya menjawab semua soalan **Bahagian A**, semua soalan **Bahagian B** dan hanya 2 soalan untuk **Bahagian C**.
4. Tuliskan jawapan anda untuk **Bahagian A** di dalam kertas **Helaian Jawapan 1A**.
5. Soalan-soalan yang dikemukakan dalam kertas ini mempunyai **empat** pilihan jawapan.
6. Jawapan untuk Bahagian B dan C **MESTI** dijawab dalam kertas berasingan. Kepilkan kertas jawapan tersebut bersana **Helaian Jawapan 1A**.

**Instructions**

1. This question paper consists of **three** sections.
2. Answer **ALL** sections.
3. You are advised to answer all questions in **Section A**, all questions in **Section B**, and only 2 questions in **Section C**.
4. Write your answers for **Section A** on the answer sheet in **Answer Sheet 1A**.
5. Questions on this paper have **four** options.
6. Answer for Section B and C **MUST** be written in full scale paper. Attach the sheets with the **Answer Sheet 1A**

Examiner		
Section	Marks	
A	36	
B	20	
C	14	
<b>Total</b>	<b>70</b>	

## SECTION A [36 MARKS]

## Questions 1 - 10

For each of the questions, read the question first and choose the best answer.  
Write **A, B, C** or **D** in the spaces provided in **Answer Sheet 1A**.

1. Which of the following are the examples of computer crimes?
  - A. Fraud, theft and chatting.
  - B. Fraud, theft and computer attack.
  - C. Fraud, theft, auction and computer attack.
  - D. Fraud, theft, chatting and computer attack.

“Quarantine is a separate area of the hard disk that holds the infected file until the infection can be removed.”

2. The statement refers to:
  - A. Firewalls
  - B. Anti-virus
  - C. Time bomb
  - D. Malicious code
3. Choose the correct abbreviation
  - A. LAN – Land Area Network
  - B. WAN – Wide Area Network
  - C. MAN – Malaysia Area Network
  - D. WAN – World Area Network
4. The \_\_\_\_\_ programming language provides a visual or graphical interface for creating source-code.
  - A. natural
  - B. low-level
  - C. high-level
  - D. very high-level
5. Most computers can understand only two discrete states, on and of. Each value is called a \_\_\_\_\_.
  - A. bit
  - B. byte
  - C. data
  - D. character
6. Creative writing such as lyrics and song compositions can be protected under the \_\_\_\_\_ law.
  - A. patent
  - B. design
  - C. copyright
  - D. trademark

7. The object-oriented design approach enables a programmer to package the \_\_\_\_\_ into a single unit, called an object.
- I. data
  - II. module
  - III. program
  - IV. function
- A. I and III  
B. I and IV  
C. I, II and III  
D. I, III and IV
8. There are three character codes to represent character, which is \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
- A. ASCII, EBDIC, APA  
B. ASCII, EBDDIC, ADA  
C. ASCII, EBCDIC, Units  
D. ASCII, EBDIC, Unicode
9. Which of the following programs translates assembly languages into machine code?
- A. Compiler  
B. Assembler  
C. Interpreter  
D. Assembly language compiler
10. These are the examples of editing software that can be used to produce multimedia
- I. Microsoft Word
  - II. Sound Recorder
  - III. Firefox Mozarella
  - IV. Sony Sound Forge
- A. I and II  
B. I, and III  
C. I, II and IV  
D. I, II, III and IV

**Questions 11 to Question 14 are given in the form of statements. Write 'True' or 'False' in the spaces provided in Answer Sheet 1A.**

- 11. Audio, video and animations are moving objects within a multimedia application.
- 12. Multimedia means multi and media. Multi means various. Media refers to any hardware or software used for communicating.
- 13. i] Hardware is the program that processes the data to create information.  
ii] A procedure is operating instructions for people to follow when using software, hardware and data.
- 14. i] Software is a series of instructions that tells a computer what to do.  
ii] The clock speed of computer is measured in Megabyte.
- 15. Table 1 shows several types of network cable. Match the statement with the given answers.

A. Coaxial Cable B. Fibre Optic Cable C. Twisted-Pair Cable
---

**TABLE 1**

- i] Glass backbone use for laser transmission of video, audio and/or data.
- ii] Copper wires that are warped around each other.

- 16. Table 2 shows several application software. Match the statement with the given answers.

<b>A. Field</b>	<b>B. File</b>	<b>C. Byte</b>	<b>D. Bit</b>
-----------------	----------------	----------------	---------------

**TABLE 2**

- i] A collection of related records.
- ii] A series of 8 bits which represent a single character.
- iii] A combination of one or more characters.
- iv] A binary digit, the smallest piece of information.

**Questions 17 - Question 25**

Write your answers in the spaces provided in **Answer Sheet 1A**.

17. Retinal biometrics involves the scanning of \_\_\_\_\_ and analysis the layer of \_\_\_\_\_ at the back of the eye.
18. The information that is transmitted can be text, \_\_\_\_\_, graphics, \_\_\_\_\_ and animation, or a combination of all these, which we call multimedia.
19. In networking terms, the structure you are planning to connect the computers to, is called network \_\_\_\_\_.
20. The \_\_\_\_\_ key ensures that no two records in a database contain the same value for that field.
21. \_\_\_\_\_ translates source code directly into machine code in real time when users run the programs.
22. In \_\_\_\_\_ interactivity, user interacts with the multimedia application without controlling the progress of the content.
23. An information system has five components that are people, \_\_\_\_\_, \_\_\_\_\_, hardware and \_\_\_\_\_.
24. Faezah likes to listen to music. She downloads song from internet and shares them with her friends. Her action is referred to as \_\_\_\_\_.
25. Information processing cycle comprises of input, output, \_\_\_\_\_ and \_\_\_\_\_.

**SECTION B [20 MARKS]**  
**BAHAGIAN B [20 MARKAH]**

Answer all questions.

Jawab semua soalan.

1.

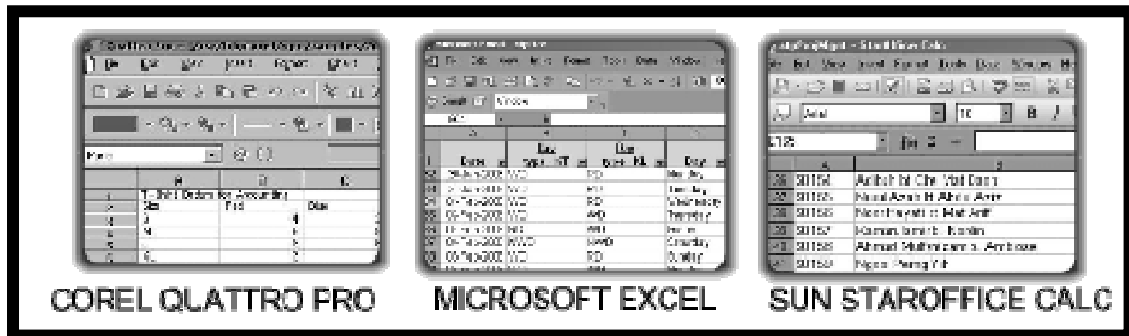


Figure 1  
Rajah 1

Based on **Figure 1**, answer the following question:

Berdasarkan *Rajah 1*, jawab soalan-soalan berikut:

- a) Name the application software shown in Figure 1.  
*Namakan perisian aplikasi yang ditunjukkan dalam Rajah 1.* [1 mark]
- b) Give **TWO** features of application software mentioned in 1(a).  
*Berikan **DUA** kelebihan perisian aplikasi yang dinyatakan di 1(a).* [2 marks]
- c) The application software mentioned in 1(a) has advanced features to allow you to work more productively. Name **ONE** of the advanced features.  
*Perisian aplikasi yang dinyatakan di 1(a) mempunyai fitur yang membenarkan anda bekerja lebih produktif. Nyatakan **SATU** dari fitur tersebut.* [1 mark]

2. Mr. Lim works as a graphics artist in MM Multimedia Production firm. He was asking to create graphics for the multimedia presentation CD. He submitted his graphics production to his team. His team use Macromedia Flash and Toolbook Assistant to develop and produce the multimedia presentation CD.

*Encik Lim bekerja sebagai pereka grafik di Syarikat MM Multimedia Production. Beliau diarahkan untuk mereka grafik untuk CD persembahan multimedia. Beliau menghantar hasilan grafik beliau kepada pasukannya. Pasukan mereka menggunakan Macromedia Flash dan Toolbook Assistant untuk membangunkan dan menghasilkan CD persembahan multimedia.*

Figure 2  
Rajah 2

Based on **Figure 2**, answer the following question:  
*Berdasarkan Rajah 2, jawab soalan-soalan berikut:*

- a) State **ONE** hardware that can be used by Mr Lim to complete his task as mentioned in Figure 2.  
*Nyatakan **SATU** perkakasan yang boleh digunakan oleh Encik Lim untuk menyempurnakan tugasnya seperti dinyatakan di Rajah 2.*
- [1 mark]
- b) State **ONE** of the multimedia element file format other than production created by Mr Lim.  
*Nyatakan **SATU** format file tentang elemen multimedia selain dari yang dibuat oleh Encik Lim.*
- [1 mark]
- c) List **TWO** concepts in authoring tools based on the multimedia software mentioned in Figure 2.  
*Senaraikan **DUA** konsep dalam peralatan pengarang berdasarkan perisian multimedia yang dinyatakan di Rajah 2.*

[2 marks]

3.

Ahmad has received an e-mail stating that his favourite soda drink “Soda Moda” uses food colouring that is not advisable by The Ministry of Health. He does not know the truth of the e-mail but he has forwarded the e-mail to 50 of his friends. Soda Moda label also has been manipulated into a picture that tends to exploit women in a distasteful manner.

*Ahmad telah menerima e-mail yang menyatakan minuman kegemarannya “Soda Moda” menggunakan pewarna yang tidak dibenarkan oleh Kementerian Kesihatan. Dia tidak dapat memastikan kebenaran kandungan e-mail itu tetapi telah menghantar e-mail itu kepada 50 orang rakannya. Label “Soda Moda” telah dimanipulasi kepada gambar yang cenderung untuk mempergunakan wanita dengan cara yang tidak sopan.*

Figure 3  
Rajah 3

Based on **Figure 3**, answer the following question:  
Berdasarkan **Rajah 3**, jawab soalan-soalan berikut:

- a) List **TWO** controversial contents that stated in Figure 3.  
*Senaraikan **DUA** kandungan kontroversi yang dinyatakan dalam Rajah 3.* [2 marks]
- b) State **ONE** impact of controversial content in society from 3(a).  
*Nyatakan **SATU** kesan kandungan kontroversi dalam masyarakat dari 3(a).* [1 mark]
- c) Give **ONE** way to prevent the problem in 3(a) above.  
*Berikan **SATU** cara untuk menghalang masalah dalam 3(a) di atas.* [1 mark]

4.

Pewaja Land Company needs a program to calculate the area of land. You are asked to prepare a details and user manual for the program.

*Syarikat Tanah Pewaja memerlukan sebuah program untuk mengira keluasan tanah. Anda diminta untuk menyediakan laporan dan manual pengguna bagi program tersebut.*

Figure 4  
Rajah 4

Based on **Figure 4**, answer the following question:  
*Berdasarkan Rajah 4, jawab soalan-soalan berikut:*

- a) State the phase involve for situation in Figure 4.  
*Nyatakan fasa yang terlibat bagi situasi dalam Rajah 4.* [1 mark]
  
- b) State **ONE** advantage for the phase in 4(a).  
*Nyatakan **SATU** kelebihan fasa dalam 4(a).* [1 mark]
  
- c) State the items for the program that are developed.  
*Nyatakan item yang terkandung dalam program yang telah dibangunkan.*
  - i] Input Item : \_\_\_\_\_  
*Item input* : \_\_\_\_\_
  
  - ii] Output item : \_\_\_\_\_  
*Item output* : \_\_\_\_\_[2 marks]

5.

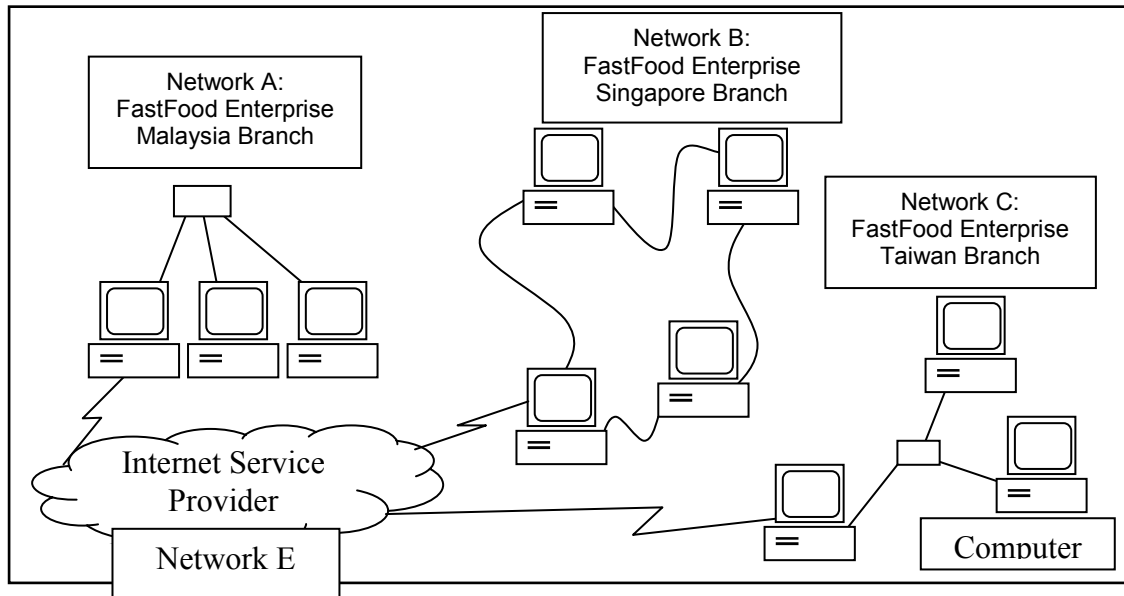


Figure 5  
Rajah 5

Based on **Figure 5**, answer the following question:  
Berdasarkan *Rajah 5*, jawab soalan-soalan berikut:

a) State name of network topologies:

*Nyatakan nama topologi rangkaian:*

i) Topology A : \_\_\_\_\_  
*Topologi A*

ii) Topology B : \_\_\_\_\_  
*Topologi B*

[2 marks]

b) State the type of Networks E.

*Nyatakan jenis Rangkaian E.*

i) Network E : \_\_\_\_\_  
*Rangkaian E :*

ii) If Computer P is server for Network C. State **One Advantages** of Network C.  
*Jika Komputer P ialah pelayan bagi rangkaian C. Nyatakan Satu kelebihan rangkaian C.*

[2 marks]

**SECTION C [14 MARKS]**  
**BAHAGIAN C [14 MARKAH]**

**Answer Question 1.**

*Jawab Soalan 1.*

1. Figure 1 shows an interface of an automated system of Care Medical Centre.  
*Rajah 1 menunjukkan antara muka sistem berautomasi bagi Pusat Perubatan Care.*

**CARE MEDICAL CENTRE**  
Patients Information

Patient ID	<input type="text"/>	Gender	<input type="text"/>
Name	<input type="text"/>	Telephone	<input type="text"/>
IC Number	<input type="text"/>	Race	<input type="text"/>
Address	<input type="text"/>	Blood Type	<input type="text"/>

Rajah 1

Based on **Figure 1**, answer the following question:  
*Berdasarkan Rajah 1, jawab soalan-soalan berikut:*

- a) Explain two benefits of having an automated system for CARE Medical Centre.  
*Jelaskan dua kebaikan mempunyai sistem berautomasi bagi Pusat Perubatan Care.*  
[2 marks]
- b) Which field is the primary key? Justify your answer.  
*Medan manakah yang merupakan kekunci primer? Berikan justifikasi bagi jawapan anda.*  
[3 marks]
- c) Explain the function of 'Update' and 'Delete' button.  
*Terangkan fungsi butang manipulasi 'Update' dan 'Delete'.*  
[2 marks]

2.

Mr. Jamal is planning to setup a network system in his school. He wants to connect the School Information Technology Lab that has 40 computers with the school library that have 8 computers. The distance between School Information Technology Lab and the school library is 65 meters.

*Encik Jamal bercadang membina sistem rangkaian di sekolahnya. Beliau mahu menghubungkan Makmal Teknologi Maklumat Sekolah yang mengandungi 40 buah komputer dengan perpustakaan sekolah yang mempunyai 8 buah komputer. Jarak di antara kedua-duanya adalah 65 meter.*

Figure 2  
Rajah 2

Based on **Figure 2**, answer the following question:  
*Berdasarkan Rajah 2, jawab soalan-soalan berikut:*

- a) Suggest suitable types of wired network system should be used for the situation above.  
*Cadangkan jenis system rangkaian berwayar yang sesuai digunakan untuk situasi di atas.*

Explain **TWO** reasons for your suggestion.  
*Berikan **DUA** alasan kepada cadangan anda.*

[2 marks]

- b) Give **TWO** types of network architecture that Mr. Jamal can use in school library.

[2 marks]

- c) Explain **TWO** difference for the types of network architecture given in (b).

[3 marks]

3. Figure 3 shows the some of the components of a computer system.  
*Rajah 3 menunjukkan sebahagian daripada komponen sistem komputer*

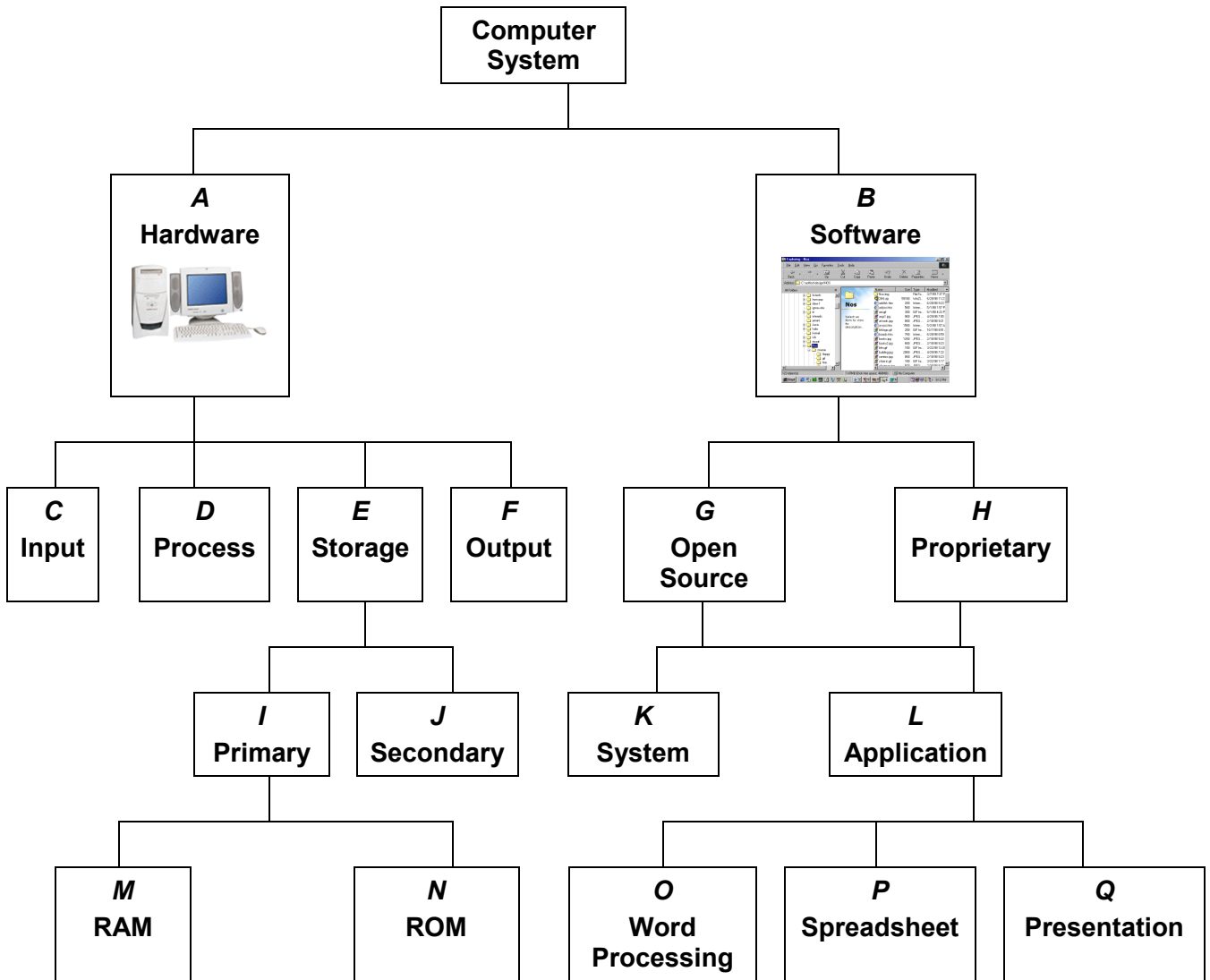


FIGURE 3

RAJAH 3

Based on Figure 3, answer the following questions.

*Berdasarkan Rajah 3, jawab soalan-soalan yang berikut.*

- a) Draw a block diagram to illustrate the information processing cycle and give a brief description.

*Lukis gambarajah blok untuk menggambarkan kitaran pemprosesan maklumat dan berikan penerangan ringkas mengenainya.*

[2 marks]

- b) Explain two differences between G and H.

*Terangkan dua perbezaan di antara G dan H.*

[2 marks]

- c) Explain two differences between M and N.

*Terangkan dua perbezaan di antara M dan N.*

[2 marks]

- d) Explain the difference between O and P.

*Terangkan perbezaan di antara O dan P.*

[1 mark]

**Answer Sheet 1A  
Helaian Jawapan 1A**

**Nama :**

**No. K.P :**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. i) \_\_\_\_\_

ii) \_\_\_\_\_

14. i) \_\_\_\_\_

ii) \_\_\_\_\_

15. i) \_\_\_\_\_

ii) \_\_\_\_\_

16. i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

iv) \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

19. \_\_\_\_\_

\_\_\_\_\_

20. \_\_\_\_\_

21. \_\_\_\_\_

22. \_\_\_\_\_

\_\_\_\_\_

23. \_\_\_\_\_

24. \_\_\_\_\_

25. \_\_\_\_\_

\_\_\_\_\_