

Nama : _____

No. KP : _____

3765/1
 Information And Communication Technology
 Kertas 2
 September
 2007
 2 ½ jam



JABATAN PELAJARAN NEGERI JOHOR
 PEPERIKSAAN PERCUBAAN
 SIJIL PEPERIKSAAN MALAYSIA 2007

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.

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.

Examiner		
Section	Marks	
A	36	
B	20	
C	14	
Total	70	

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 helps people to protect privacy?
- A. Use authentic software.
 - B. Use public computer.
 - C. Use pirated software.
 - D. Use shared program.

- Act of stealing computer equipment
- Act of stealing or illegally copying software

2. The activities above are categorized as
- A. computer theft
 - B. computer fraud
 - C. computer attacks
 - D. copyright infringement
3. Organizations create tables with arithmetic function to calculate the average of sales per annum by using this type of software
- A. graphics
 - B. presentation
 - C. spreadsheet
 - D. word processing
4. A computer network must contain at least _____ computers.
- A. one
 - B. two
 - C. twenty
 - D. hundred
5. Which of the following connection methods would not be used to connect devices between two different offices?
- A. infrared
 - B. fiber-optics
 - C. twisted pairs
 - D. coaxial cables
6. Object-oriented programming
- A. is a type of machine language
 - B. is a type of assembler language
 - C. converts source code into machine code
 - D. allows you to interact with objects when coding software

7. Authoring tools uses the following concepts.
- I. Card concept
 - II. Icon concept
 - III. Multiple concept
 - IV. Time frame concept
- A. I and II
B. I and III
C. I, II and III
D. I, II and IV
8. Gaining the attention of the audience is important in a multimedia presentation. This can be achieved by_____
- A. using colourful texts
B. inserting a lot of graphics
C. displaying all the content in one page
D. keeping your message as simple as possible
9. Choose the correct hierarchy of data
- A. bit, byte, field, record, database
B. bit, field, record, byte, database
C. bit, byte, record, field, database
D. bit, record, byte, field, database
10. Which of the following are types of information system
- I. Decision Support System (DSS)
 - II. Executive Information System (EIS)
 - III. Transaction Processing System (TPS)
 - IV. Manager and Staff Information System (MSIS)
- A. I and II
B. I, and III
C. I, II and III
D. I, II, III and IV

Questions 11 to Question 12 are given in the form of statements. Write 'True' or 'False' in the spaces provided in **Answer Sheet 1A**.

11. i) Authentication is important in order to safeguard against unauthorised access and use.
- ii) RAM is a non-volatile storage.
- iii) ROM chips hold the program and data that the CPU is presently processing.
12. i) Communication systems are electronic systems that transmit data from one location to another.
- ii) A computer program is a set of instructions that directs computer to perform tasks.
- iii) High Level Language is machine-dependent and runs on one type of computer only.
13. Table 1 shows several terms of computer crime
Match the statement with the given answers.

<p>A. Theft B. Hacking C. Malicious code D. Natural disaster</p>
--

TABLE 1

- i) Someone tries to access a computer or network illegally.
- ii) Floods and earthquakes can contribute to computer systems destruction.
- iii) A program with intention to prohibit a normal routine of a computer system.
14. Table 2 shows several application software.
Match the statement with the given answers.

A. SPREADSHEET	B. PRESENTATION	C. WORD PROCESSOR
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TABLE 2

- i) Salesmen use this software to demonstrate products and encourage customers to make purchases.
- ii) This software is designed to enable users to create and print textual documents.

15. Match the statement with the given answers.

- A. Problem Analysis
- B. Program Design
- C. Coding

- i) _____ translates pseudo codes or flowcharts into programming language.
- ii) _____ to identifies input, output and processing requirements.

16. Match the various fields in Multimedia with the statements below.

- A. Entertainment
- B. Medical
- C. Engineering

- i) Produce computer games and develop animations and special effects.
- ii) View the design from many aspects and improve on it before production

Questions 17 - Question 25

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

- 17. _____ refers to rights of individuals and companies to restrict collection and use of information about them.
- 18. _____ refers to any laws relating to protecting the Internet and other online communication technologies.
- 19. Speakers and headphones are classified as _____ devices while joysticks and trackballs are classified as _____ devices.
- 20. The standard protocol for the Internet is _____ .
- 21. _____ is an expansion card that connects a computer to a network.
- 22. Multimedia applications can be delivered through _____ and _____.
- 23. Adobe Photoshop is application software which can be used to edit _____.
- 24. Data manipulation in a database management system consists of basic operations such as _____.
- 25. In database management system, _____ is a request for specific data from a database.

SECTION B (20 MARKS)
BAHAGIAN B (20 MARKAH)

Answer all questions.

Jawab semua soalan.

1.

Ahmad likes to access the internet. One day, while surfing the internet, his computer starts to run a little weird. He noticed that the modem LEDs were blinking even after he has stopped surfing. His system seemed to get slow and suddenly reboots. Ahmad is sure that somebody has logged onto his computer.

FIGURE 1

Ahmad gemar melayari internet. Pada suatu hari, semasa Ahmad sedang melayari internet, beliau mendapati komputer beliau tidak laju seperti biasa. Beliau juga mendapati bahawa 'LED' pada modem berkelip walaupun beliau tidak lagi melayari internet. Komputer beliau juga 'reboot'. Ahmad pasti terdapat pengguna lain yang telah memasuki sistem komputernya.

RAJAH 1

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

Berdasarkan Rajah 1, jawab soalan-soalan berikut:

- (a) State what kind of computer threat is mentioned in the situation above?
Nyatakan jenis ancaman komputer yang disebutkan dalam situasi di atas.

(1 mark)

- (b) Give **ONE** effect of the threat in (a) to Ahmad's data.
*Berikan **SATU** kesan akibat ancaman yang di (a) kepada data Ahmad*

(1 mark)

- (c) State **TWO** things that Ahmad can do to enhance the security of his data while accessing the Internet.

*Nyatakan **DUA** perkara yang boleh dilakukan oleh Ahmad untuk meningkatkan lagi keselamatan data beliau semasa melayari internet.*

i. _____

ii. _____ (2 marks)

2.

Ali works as a clerk in a school. He uses a keyboard to key-in all the school's data into the computer. He saves all the data as a backup in **Device X**. At the end of every month, he will send a printed report to the school principal.

*Ali bekerja sebagai kerani di sebuah sekolah. Ketika menggunakan komputer beliau menggunakan papan kekunci untuk memasukkan semua data berkenaan sekolah tersebut. Beliau membuat data sandaran ke dalam **peranti X**. Pada setiap hujung bulan beliau akan menghantar laporan bercetak kepada pengetua.*

Based on the situation given, answer the following question:
Berdasarkan situasi yang diberi, jawab soalan-soalan berikut:

(a) Based on the situation above, name the input device and output device that Ali used.

Berdasarkan situasi di atas, apakah peranti input dan peranti output yang digunakan oleh Ali.

i) Input device : _____

Peranti input: _____

ii) Output device: _____

Peranti output: _____

(2 marks)

(b) Give two examples of Device X.
Berikan dua contoh peranti X.

_____ (2 marks)

3.

As a information technology coordinator in Samudera Smart School, Samsun has been told to submit a project paper on Digital Resource Center. The project will be implemented in his school soon. The project paper will show the phases and features in information systems development. It will help his principal have the overview of the whole project.

Sebagai penyelaras teknologi maklumat di Sekolah Bestari Samudera, Samsun ditugaskan untuk menghantar satu kertas kerja mengenai Pusat Sumber Digital. Projek tersebut akan dilaksanakan di sekolahnya dalam masa terdekat. Kertas kerja itu akan menunjukkan fasa-fasa dan fitur-fitur di dalam pembangunan sistem pengurusan pusat tersebut. Hasil penulisannya akan membantu pengetua sekolahnya mendapat pandangan awal keseluruhan projek.

Based on the situation given, answer the following question:
Berdasarkan situasi yang diberi, jawab soalan-soalan berikut:

(a) Name second phase in developing the project above.
Namakan fasa kedua dalam membangunkan projek dinyatakan di atas.

_____ (1 mark)

(b) State two database objects or tools that should be stated in the project above.
Nyatakan dua objek atau alat pangkalan data yang seharusnya dinyatakan di dalam projek di atas.

i) _____

ii) _____ (2 marks)

(c) Give one benefit of implementing the project above.
Berikan satu kelebihan pelaksanaan projek di atas.

_____ (1 mark)

4.

As a project manager in EZ Creative Production Company, Ashraf has been assigned to develop a multimedia production to advertise a new computer for NewTech Corporation. The multimedia will include text, animation, audio and video elements. He appoints four other team members as instructional designer, graphic artist, audio video technician and programmer.

Sebagai pengurus projek di Syarikat EZ Creative, Ashraf ditugaskan untuk membangunkan produksi multimedia untuk mengiklankan komputer terbaru bagi Syarikat NewTech Corporation. Produksi multimedia tersebut melibatkan elemen teks, grafik, audio dan video. Ashraf melantik empat ahli lain sebagai 'instructional designer', pereka grafik, juruteknik audio video dan pembangun aturcara.

Based on the situation given, answer the following question:

Berdasarkan situasi yang diberi, jawab soalan-soalan berikut:

- (a) i. Name a team member that Ashraf did not include in his multimedia development team.

Namakan ahli yang tidak dilibatkan oleh Ashraf di dalam kumpulan pembangun multimedia tersebut.

_____ (1 mark)

- ii. State the role of the team member you stated in (i)
Nyatakan peranan ahli yang anda nyatakan dalam (i)

_____ (1 mark)

- (b) i) Name the multimedia element that was not included in the above production.

Namakan elemen multimedia yang tidak dimasukkan di dalam produksi di atas.

_____ (1 mark)

- ii) Give one example of hardware that can be used to in (b)(i).

Berikan satu contoh perisian yang boleh digunakan untuk (b)(i).

_____ (1 mark)

5. Davidson is the manager of D'Mart, a sports equipment shop in Kota Tinggi. To increase the sale for the month of September, he has decided to offer a discount of 10 percent to all his customers who spend more than RM 100 on an item. Davidson needs a program to calculate the total sale for the customers after deducting the offered discount. As an ICT student, you are asked to develop the program and create user's manual in Phase X.

Davidson adalah pengurus D'Mart iaitu kedai barangan sukan di Kota Tinggi. Bagi meningkatkan jualan pada bulan September, Davidson bercadang untuk memberikan diskaun ke atas mana-mana barang yang bernilai lebih dari RM 100 bagi satu item. Beliau memerlukan satu program untuk membantu beliau mengira jumlah harga barangan yang dibeli setelah ditolak diskaun. Sebagai pelajar ICT, anda diminta membangunkan program tersebut dan menghasilkan manual pengguna di dalam fasa X.

Based on the situation given, answer the following question:

Berdasarkan situasi yang diberi, jawab soalan-soalan berikut:

- (a) What is the problem statement for the above situation?
Apakah pernyataan masalah bagi situasi di atas?

_____ (1 mark)

- (b) State the items for the program that you are going to develop.
Nyatakan item yang terkandung dalam program anda.

i) Input Item : _____
Item input : _____

ii) Output item : _____
Item output : _____

(2 marks)

- (c) State phase X.
Nyatakan fasa X.

_____ (1 mark)

SECTION C (14 MARKS)
BAHAGIAN C (14 MARKAH)

Answer Question 1.

Jawab Soalan 1.

1.

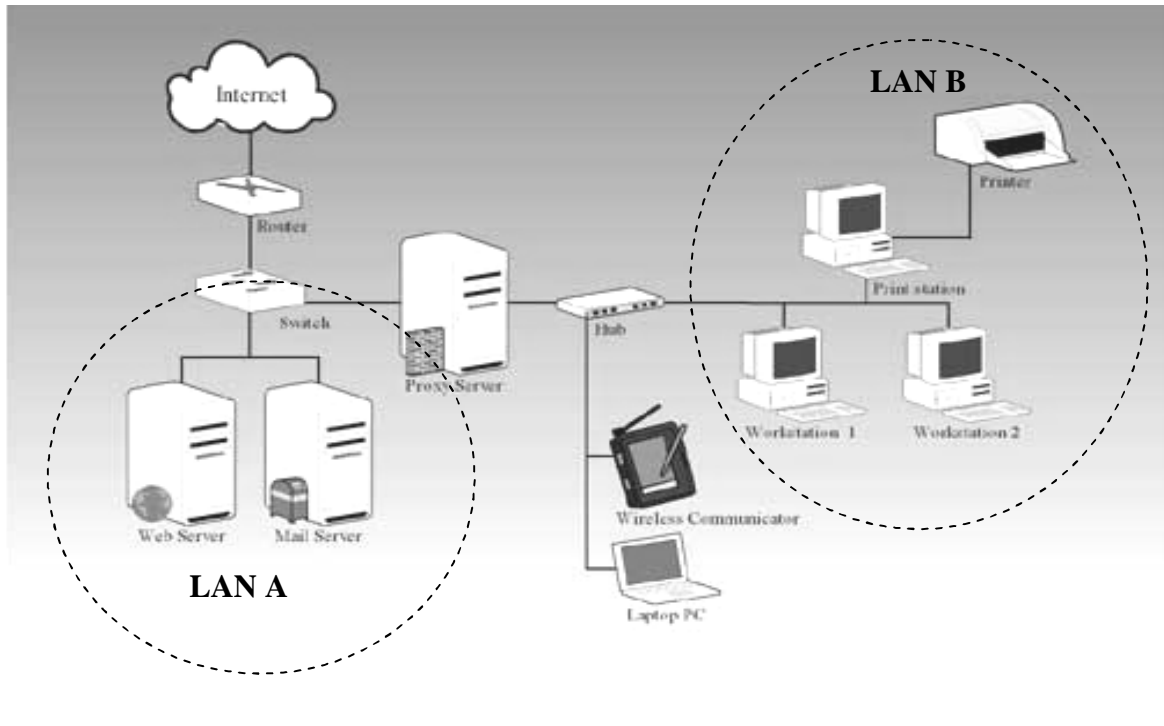


FIGURE 1
RAJAH 1

Figure 1 shows a computer network at Cyclone Bank. The network consists of two Local Area Network (LANs): LAN A and LAN B which are part of the bank Wide Area Network (WAN). Currently the bank implements two network communications. Apart from the Internet, the bank also has its own intranet to facilitate their internal communications. They are looking to set up extranet as the third form of network communication in the near future.

Rajah 1 menunjukkan rangkaian komputer di Bank Cyclone. Rangkaian ini mengandungi dua Sistem Rangkaian Setempat (LAN): LAN A dan LAN B yang merupakan sebahagian daripada Sistem Rangkaian Luas (WAN) bank tersebut. Pihak bank baru melaksanakan dua komunikasi rangkaian. Selain dari Internet, pihak bank juga mempunyai intranet untuk komunikasi peringkat dalaman. Mereka merancang untuk membangunkan extranet sebagai komunikasi rangkaian ketiga dalam jangka waktu terdekat.

Based on Figure 1,
Berdasarkan Rajah 1,

- (a) Explain **two** differences between the two computer network types of the bank.
Jelaskan dua perbezaan di antara dua jenis rangkaian komputer bank tersebut.

(2 marks)

- (b) Explain **two** differences between LAN A topology and LAN B topology.
Jelaskan dua perbezaan di antara topologi LAN A dan topologi LAN B.

(2 marks)

- (c) Explain **two** differences between two current network communications in the bank.
Jelaskan dua perbezaan di antara dua komunikasi rangkaian yang sedang digunakan di bank sekarang.

(2 marks)

- (d) Use a specific example to explain the proposed network communication.
Gunakan contoh khusus untuk menjelaskan komunikasi rangkaian yang dirancang di atas.

(1 mark)

2. Figure 2 shows five components that support Salary Payment Information System (SPIS) of Green Technology Company.
Rajah 2 menunjukkan lima komponen yang menyokong Sistem Maklumat Pembayaran Gaji (SMPG) bagi Green Technology Company.

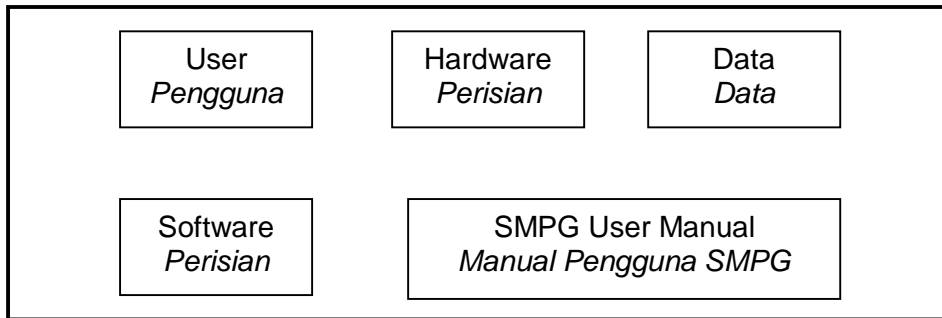


FIGURE 2
RAJAH 2

Based on Figure above,
Berdasarkan Rajah di atas,

- (a) Explain the relationship between user and hardware.
Terangkan hubungan antara pengguna dengan perkakasan.

(1 mark)

- (b) Describe two benefits of SMPG to Syarikat Maju Berhad.
Jelaskan dua faedah SMPG kepada Syarikat Maju Berhad.

(2 marks)

- (c) State two possible threats on the security of SMPG.
Nyatakan sekurang-kurangnya dua perkara yang boleh mengancam keselamatan SMPG.

(2 marks)

- (d) Explain two effects of the security threats as stated in (c)
Terangkan dua kesan ancaman keselamatan yang dinyatakan dalam (c)

(2 marks)

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

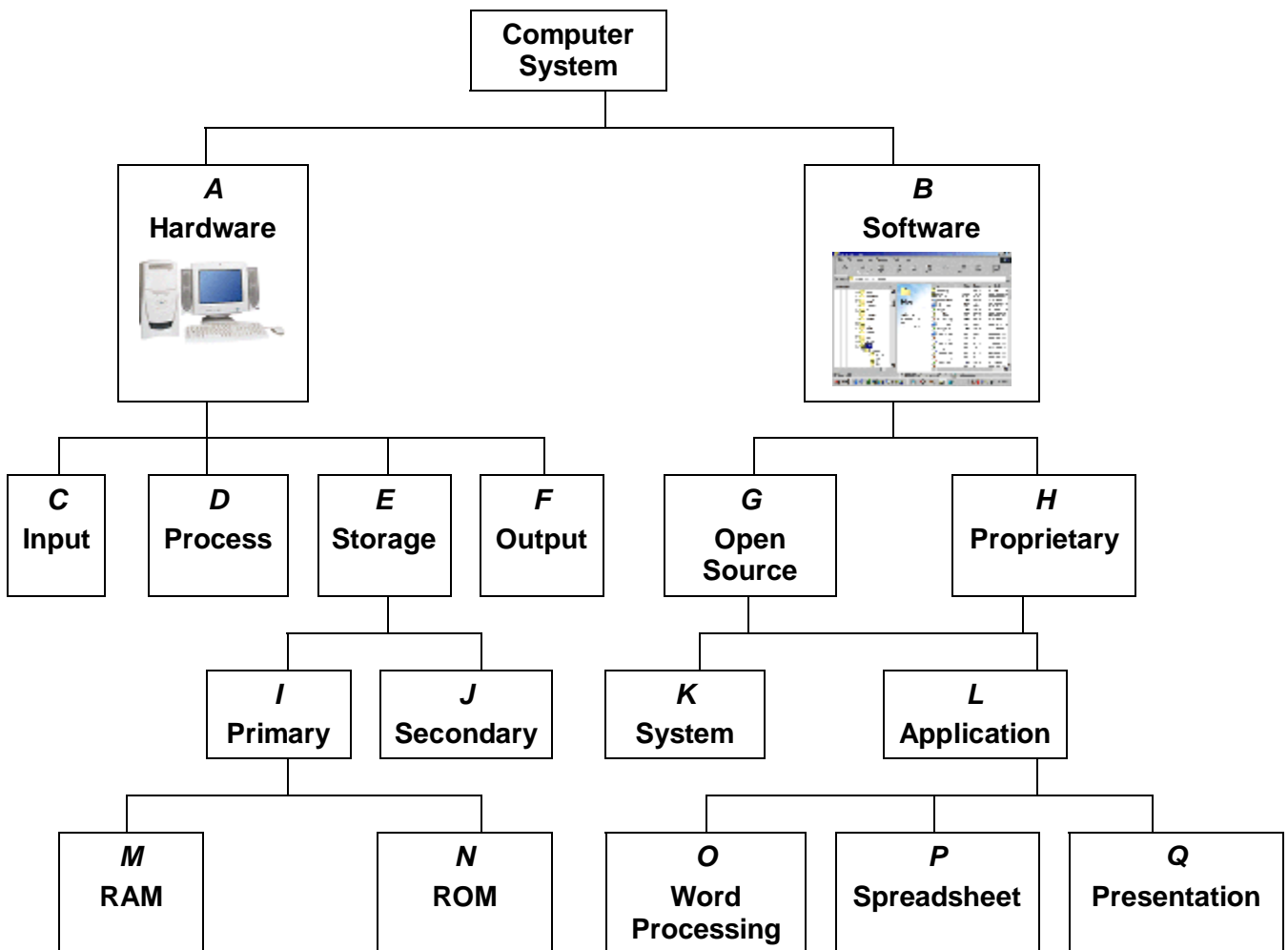


FIGURE 3

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

3765/1

Nama :

No. K.P :

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. i) _____

ii) _____

iii) _____

12. i) _____

ii) _____

iii) _____

13. i) _____

ii) _____

iii) _____

14. i) _____

ii) _____

15. i) _____

ii) _____

16. i) _____

ii) _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____
