

SECTION A
Bahagian A

[36 marks]

[36 markah]

Answer **all** questions. Write your answer in the spaces provided on the **Answer Sheet**. Each answer carries **one** mark.

This section consists of 25 questions. Answer ALL questions in the answer sheet provided at the end of this question paper.

1. Table 1 shows security measures to protect our computer systems.

Jadual 1 menunjukkan langkah-langkah keselamatan untuk melindungi sistem komputer.

i.	It is a process of hiding information by altering the actual information into different representation. <i>Proses menyembunyikan maklumat dengan menukar maklumat asal kepada bentuk yang berbeza.</i>
ii.	Prevent portability by restricting the hardware from being moved. <i>Mengawal pergerakan sesuatu perkakasan.</i>

A	Anti virus <i>Anti virus</i>
B	Human Aspects <i>Aspek Kemanusiaan</i>
C	Cryptography <i>Kriptografi</i>
D	Firewall <i>Tembok Api</i>

Table 1
Jadual 1

Based on Table 1, match the statements with the correct security measures by writing A, B, C or D.
Berdasarkan Jadual 1, padankan pernyataan yang diberi dengan langkah keselamatan yang betul dengan menulis A, B, C atau D.

2. State whether the following statement is **True** or **False**.

*Nyatakan sama ada pernyataan berikut adalah **Benar** atau **Palsu**.*

Cookies enable web sites to collect information about your online activities and store them for future use. Then, the collected details will be sold to any company that requests for it.

Cookies membenarkan laman sesawang mengumpul maklumat tentang aktiviti atas talian dan menyimpan maklumat tersebut untuk kegunaan di masa akan datang. Maklumat tersebut akan dijual kepada mana-mana syarikat yang memerlukannya.

3. Which of the following is the unit of data measurement?
Yang manakah antara berikut adalah unit pengukuran data?

- I. Megabyte / *Megabait*
- II. Gigabyte / *Gigabait*
- III. Megahertz / *Megahertz*
- IV. Gigahertz / *Gigahertz*

- A. I and II / *I dan II*
- B. I and III / *I dan III*
- C. II and IV / *II dan IV*
- D. III and IV / *III dan IV*

4. Figure 1 shows a computer motherboard.
Rajah 1 menunjukkan sebuah papan induk komputer.

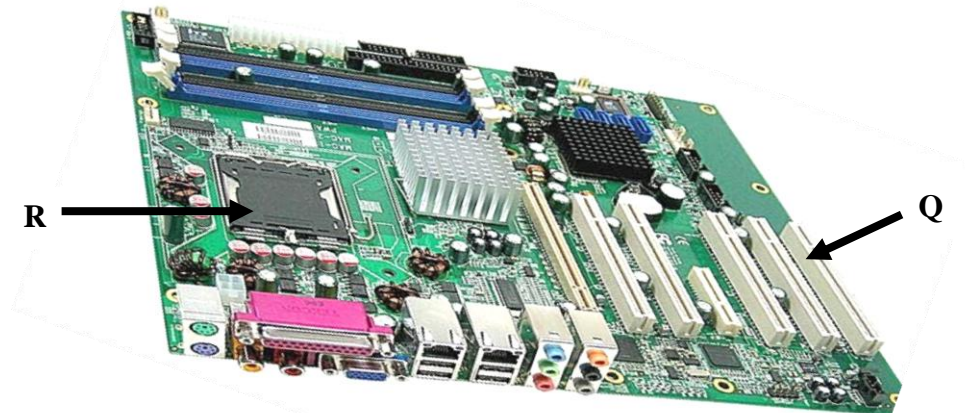


Figure 1
Rajah 1

Based on Figure 1, name;
Berdasarkan Rajah 1, namakan;

- (i) Q
- (ii) R

5. Figure 2 shows a cable used during PC assembling. It is called a _____.
Rajah 2 menunjukkan kabel yang digunakan semasa pemasangan PC. Kabel ini dikenali sebagai _____.



Figure 2
Rajah 2

- A. SATA Cable / *Kabel SATA*
 - B. UTP Cable / *UTP Kabel*
 - C. SATA Power Cable / *Kabel Kuasa SATA*
 - D. Twisted Pair Cable / *Kabel Pasangan Terpiuh*
6. Figure 3 shows a RAM.
Rajah 3 menunjukkan RAM.

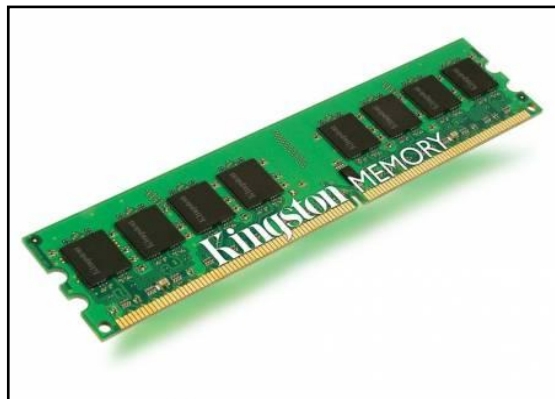


Figure 3
Rajah 3

State **one** function of RAM.
*Nyatakan **satu** fungsi RAM.*

7. Figure 4 shows two output devices.
Rajah 4 menunjukkan dua peranti input.



Figure 4
Rajah 4

Based on Figure 4, state the type of output for;
Berdasarkan Rajah 4, nyatakan jenis output bagi;

- (i) M
- (ii) N

8. Figure 5 shows three types of physical transmission medium.
Rajah 5 menunjukkan tiga jenis media penghantaran fizikal.

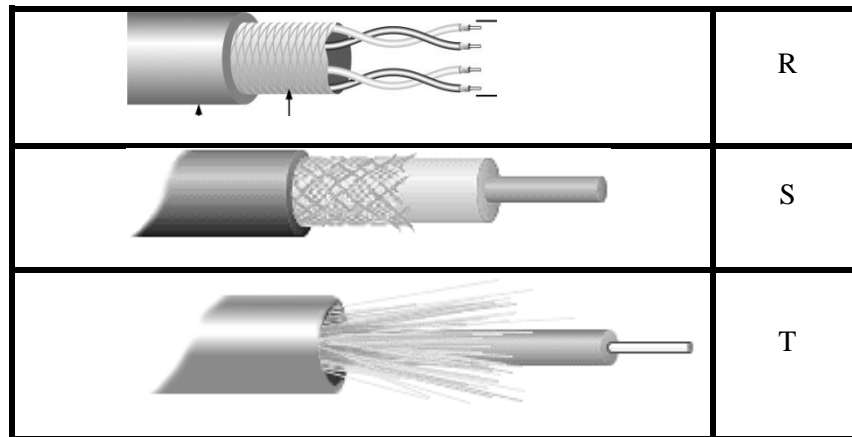


Figure 5
Rajah 5

Based on Figure 5, write **R**, **S** or **T** for the following statements.
Berdasarkan Rajah 5, tulis R, S atau T bagi pernyataan berikut.

- (i) This cable has two insulated copper wires that are twisted around each other.
Kabel ini mempunyai dua wayar bersalut kuprum yang terpiuh antara satu sama lain.
- (ii) This cable consists of a single copper wire surrounded by at least three layers.
Kabel ini mengandungi satu wayar kuprum tunggal yang dikelilingi oleh sekurang-kurangnya

tiga lapisan.

9. State **one** function of a hub or switch.
*Nyatakan **satu** fungsi hub or switch.*
10. Figure 6 shows few examples of software Q.
Jadual 6 menunjukkan beberapa contoh perisian Q.



Figure 6
Rajah 6

Name Q.
Namakan Q.

11. Figure 7 shows a network diagram.
Rajah 7 menunjukkan satu rajah rangkaian.

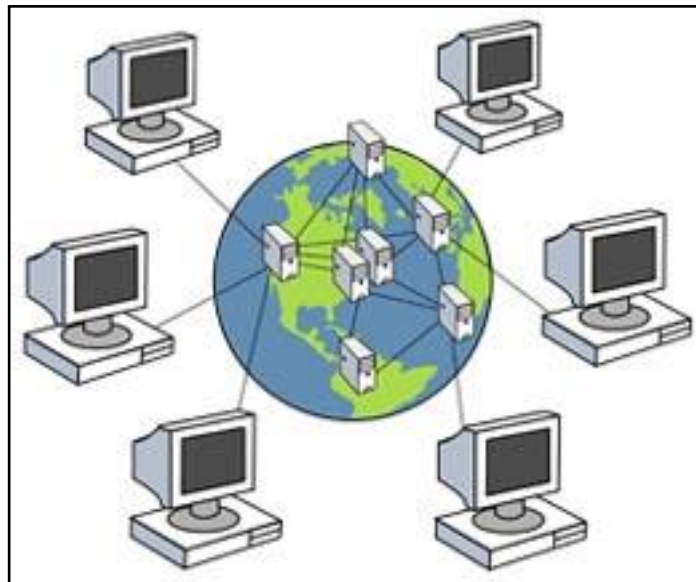


Figure 7
Rajah 7

Based on Figure 7, state the type of computer network.
Berdasarkan Rajah 7, nyatakan jenis rangkaian komputer.

12. Statement 1 shows a description of a network topology.
Pernyataan 1 menunjukkan penerangan mengenai satu topologi rangkaian.

- Found in a Local Area Network
Terdapat dalam Rangkaian Kawasan Setempat
- Must have a host which acts as a centre
Mempunyai hos yang bertindak sebagai pusat
- Every node must connect to the host in order to communicate
Setiap nod perlu disambung ke hos untuk berkomunikasi

Statement 1
Pernyataan 1

Based on Statement 1, state the name of the network topology.
Berdasarkan Pernyataan 1, namakan topologi rangkaian tersebut.

13. Identifying the project title, problem and possible solutions are some of the activities involve in _____ phase of multimedia development.
Mengenalpasti tajuk projek, masalah dan penyelesaian yang sesuai adalah antara aktiviti yang terlibat dalam fasa _____ dalam pembangunan multimedia.
14. Figure 8 shows medium delivery for multimedia product.
Rajah 8 menunjukkan media penghantaran untuk produk multimedia.

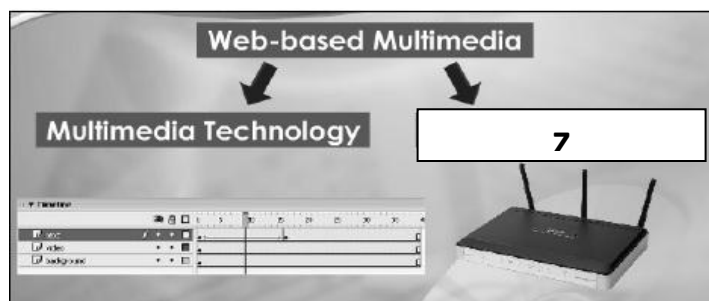


Figure 8
Rajah 8

Web-based multimedia is a combination of multimedia technology and Z. Identify Z.
Multimedia berasaskan web ialah kombinasi teknologi multimedia dan Z. Kenalpasti Z.

15. Table 2 shows standard file formats for multimedia elements.
Jadual 2 menunjukkan format fail bagi elemen multimedia.

Text files	*.doc
Audio files	X
Graphic files	*.jpeg
Video files	Y
Animation files	*.gif

Table 2
Jadual 2

Based on Table 2, give **one** example for:
Berdasarkan Jadual 2, nyatakan:

- (i) X
- (ii) Y

16. Figure 9 shows the interactivity of multimedia.
Rajah 9 menunjukkan interaktiviti multimedia.



P



Q

Figure 9
Rajah 9

Based on Figure 9, state:
Berdasarkan Jadual 9, nyatakan:

- (i) P
- (ii) Q

17. Table 3 shows the elements in flow chart.
Jadual 3 menunjukkan elemen-elemen dalam carta alir.



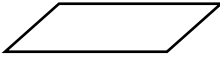
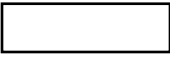
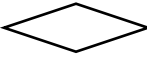
P	Q	R	S	T
				

Table 3
Jadual 3

Based on Table 3, write **P**, **Q**, **R**, **S** or **T** to match the following statements.
Berdasarkan Jadual 3, tuliskan P, Q, R, S atau T bagi pernyataan berikut.

- (i) shows the beginning or end of a program.
menunjukkan permulaan atau penamat sesuatu program.
- (ii) use to connect symbols and indicate the sequences of operation.
digunakan untuk menyambungkan simbol dan menunjukkan jujukan sesuatu operasi.
18. State whether the following statements is **True** or **False**.
Nyatakan sama ada pernyataan berikut adalah Benar atau Palsu.
- (i) Structured programming often uses a top down design model.
Pengaturcaraan berstruktur menggunakan model rekabentuk atas bawah.
- (ii) Compiler executes instruction in a program line by line until the end of the program.
Pengkompil melaksanakan arahan aturcara baris demi baris sehingga tamat aturcara.

19. Figure 10 shows a pseudo code for a program.
Rajah 10 menunjukkan kod pseudo bagi satu program.

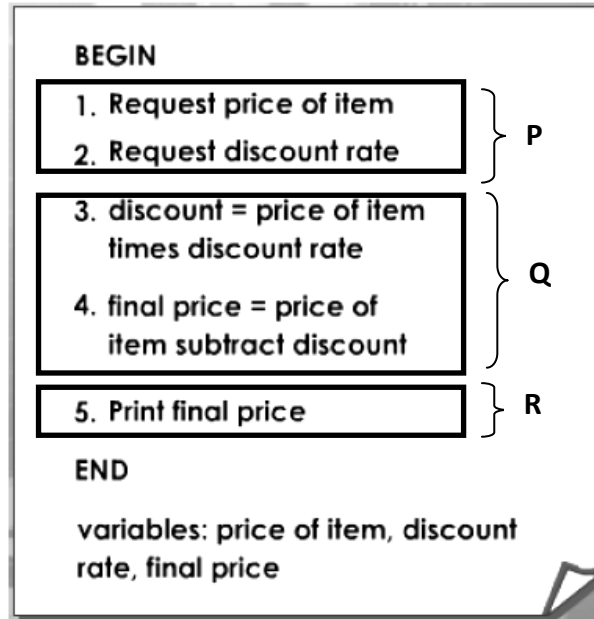


Figure 10
Rajah 10

Based on Figure 10, identify:
Berdasarkan Rajah 10, kenalpasti;

- (i) input
- (ii) process

20. Figure 11 shows an interface of software.
Rajah 11 menunjukkan antara muka bagi satu perisian.

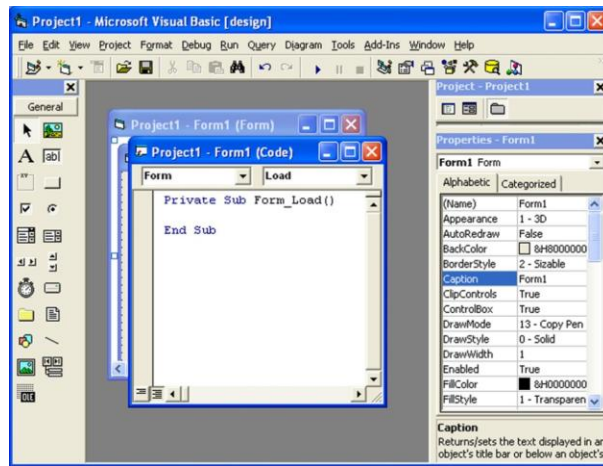


Figure 11
Rajah 11

State the phase where the programmer uses this software to develop a program.
Namakan fasa di mana pengaturcara akan menggunakan perisian ini untuk membangunkan sistem.

21. The following statement refers to one phase of program development.
Pernyataan berikut merujuk kepada satu fasa dalam pembangunan aturcara.

This phase ensures the program runs correctly and is error-free.
Fasa ini memastikan aturcara berjalan dengan betul dan bebas ralat.

State the name of the phase.
Nyatakan nama fasa itu.

22. Figure 12 shows the concept of information system.
Rajah 12 menunjukkan konsep sistem maklumat.

X	Y	Z
People <i>Manusia</i>	Procedure <i>Prosedur</i>	Hardware <i>Perkakasan</i>

Figure 12
Rajah 12

Match the components of information system with the following statement.
Padankan komponen system maklumat dengan pernyataan yang diberikan.

- (i) Instructions for the user of an information system can be in the form of Operating guidelines in the user manuals.
Arahan pengoperasian kepada pengguna sistem maklumat dalam bentuk panduan dalam manual pengguna.
- (ii) Refer to people involved in using information system.

Petugas sistem dan pengguna akhir.

23. Statement 2 refers to a type of information system.
Pernyataan 2 di bawah merujuk kepada jenis sistem maklumat.

A manager uses an information system that analyzes business data and presents it so that he can make the best business decisions.

Sistem maklumat yang menganalisa data perniagaan supaya pengguna boleh membuat keputusan dengan mudah.

Statement 2
Pernyataan 2

State the type of information system.
Nyatakan jenis sistem maklumat tersebut.

24. Figure 13 shows a student’s table.
Rajah 13 menunjukkan jadual pelajar.

StudentID	Name	MyKad Number	Date Of Birth	Gender	Address	Contact Number
A0001	Khor Zhong Xhen	901214-07-5905	14/12/1990	Male	44, S522/17, Damansara Jaya, 47400 PJ, SEL.	03 77290604
A0002	Utfr bt Zulkadain	901010-07-5676	10/10/1990	Female	116A, S523/6, Taman Megah, 47301 PJ, SEL.	03 78564903
A0003	Sulaiman b Yahya	901206-08-5213	6/12/1990	Male	112, S522/19, Damansara Jaya, 47400 PJ, SEL.	03 78062121
A0004	Alman b Zubir	901001-08-5117	1/10/1990	Male	37, S522/22, Damansara Jaya, 47400 PJ, SEL.	03 78061915
A0005	Llm Hock Leong	900517-08-5109	17/05/1990	Male	9, S522A/3, Damansara Jaya, 47400 PJ, SEL.	03 77270275
A0006	Fathin bt Sulaiman	900629-07-5002	29/06/1990	Female	77, S523/1, Taman SEA, 47400 PJ, SEL.	03 78063328
A0007	Renuca a/p Samugan	900907-07-5014	7/09/1990	Female	68, S523/19, Taman Megah, 47301 PJ, SEL.	03 77280031
A0008	Maimun bt Zulhelmi	900915-07-5354	15/09/1990	Female	Lot 1024, Kampung Kayu Ara, 47400 PJ, SEL.	03 78085942
A0007	Sulaiman B Yahya	901108-08-5771	8/11/1990	Male	CS01, PJ03/2, Kiana Green Condo, 47410 PJ, SEL.	03 78063388
A0010	Ibrahim b Ismail	900404-08-5415	4/04/1990	Male	Lot 2209, Kampung Kayu Ara, 47400 PJ, SEL.	03 78085668

Figure 13
Rajah 13

Based on Figure 13, select X, Y or Z for the following statement.
Berdasarkan Rajah 13, pilih X, Y atau Z bagi pernyataan berikut.

- i) Collection of fields about a person, place or thing in a table.
Koleksi medan tentang seseorang, tempat atau benda dalam jadual
- ii) Which field is the most suitable for primary key.

Medan manakah yang paling sesuai digunakan sebagai kunci primer

25. State whether the following statement is **True** or **False**.
*Nyatakan sama ada pernyataan berikut adalah **Benar** atau **Palsu**.*
- i) A foreign key ensures data integrity by uniquely identifying each record.
Kunci asing memastikan integriti data dengan mengenalpasti rekod secara unik.
 - ii) Update, insert and delete are some of the basic operation of data manipulation.
Kemaskini, selitan dan hapus adalah sebahagian daripada operasi manipulasi data.

SECTION B
Bahagian B

[20 marks]

[20 markah]

This section consists of five questions. Answer all questions.
Bahagian ini mengandungi lima soalan. Jawab semua soalan.

26.

Unethical activity

- Using the office computer to do personal things.

Law breaking activity

- Sending a computer virus via e-mail

Aktiviti tidak beretika

- *Menggunakan komputer pejabat untuk kegunaan peribadi.*

Aktiviti melanggar undang-undang

- *Menghantar virus komputer melalui e-mail.*

Statement 3
Pernyataan 3

Listed above are the examples of unethical activity and law breaking activity commonly done by computer users.

Senarai di atas adalah contoh aktiviti yang tidak beretika dan aktiviti yang melanggar undang-undang yang biasa dilakukan oleh pengguna komputer.

- a. Give another example of :
- i. unethical activity
 - ii. law breaking activity.

Berikan satu contoh lain bagi :

- i. *aktiviti yang tidak beretika*
- ii. *aktiviti yang melanggar undang-undang*

[2 marks]

[2 markah]

- b. State **TWO** reasons why do we need cyber law.

*Nyatakan **DUA** sebab mengapa kita memerlukan undang-undang siber.*

[2 marks]

[2 markah]

27. Figure 14 shows the information processing cycle.
Rajah menunjukkan kitaran pemprosesan maklumat.

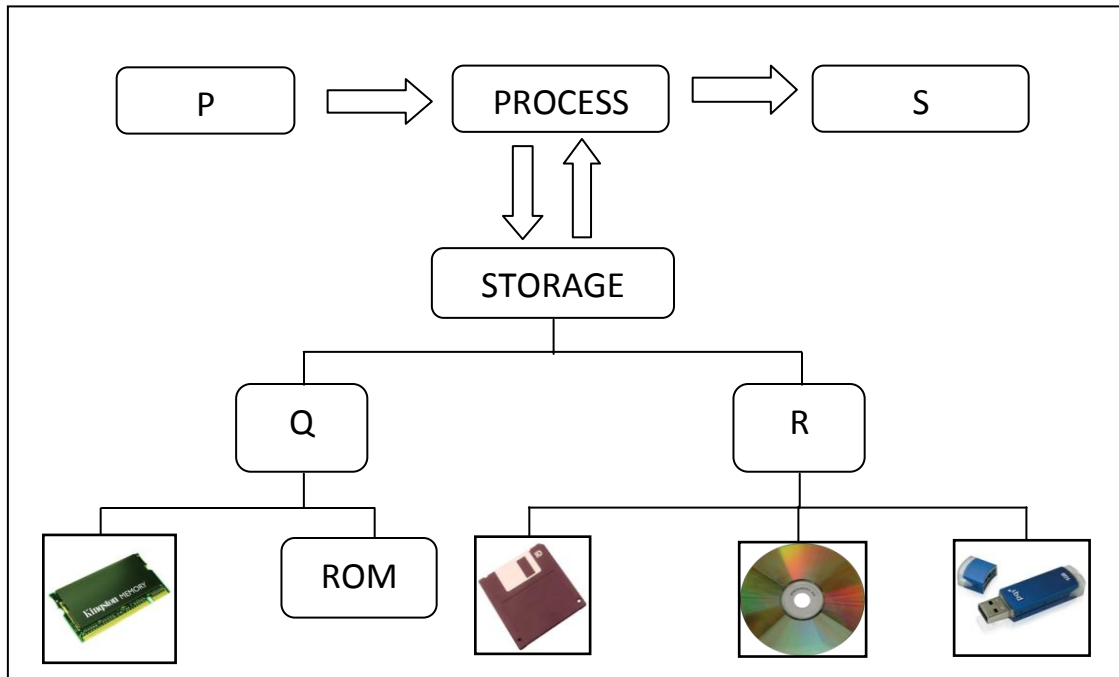


Figure 14
Rajah 14

Based on Figure 14,
Berdasarkan Rajah 14,

- (a) (i) Name P. [1 mark]
Namakan P. [1 markah]
- (ii) Define P. [1 mark]
Berikan definisi P. [1 markah]
- (b) State the function of R. [1 mark]
Nyatakan fungsi R. [1 markah]
- (c) Give the different between RAM and ROM. [1 mark]
Berikan perbezaan antara RAM dan ROM. [1 markah]

28. Network architecture as shown in Figure 15 is the overall design of a computer network that describes how a computer network is configured and what strategies are being used.

Senibina rangkaian yang ditunjukkan dalam Rajah 15 adalah rekabentuk rangkaian komputer secara keseluruhan yang menerangkan bagaimana rangkaian komputer dikonfigurasi dan strategi yang digunakan.

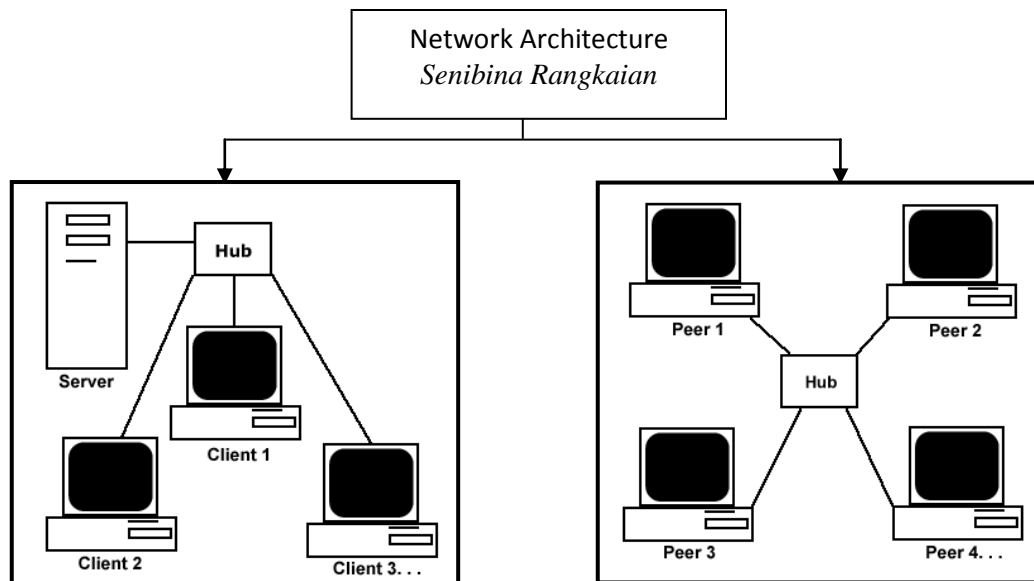


Figure 15
Rajah 15

- a. Based on Figure 15, explain **TWO** differences between both architecture.
Berdasarkan Rajah 15, terangkan DUA perbezaan di antara kedua-dua senibina tersebut.

[2 marks]
[2 markah]

- b. Give an example of a situation that reflects peer-to-peer network.
Berikan satu contoh bagi menggambarkan situasi rangkaian rakan ke rakan.

[2 marks]
[2 markah]

29. SmartMedia Sdn. Bhd. is a multimedia company. The company got a new project to produce a high quality interactive educational multimedia application to attract tourist to Perlis. You were elected as a project manager. For a start, you gathered a team for this project. Your team consists of Subject Matter Expert, Programmer, Audio-Video Technician and Graphic Artist.

SmartMedia Sdn. Bhd. ialah sebuah syarikat multimedia. Syarikat ini mendapat satu projek baru untuk menghasilkan satu aplikasi multimedia pendidikan interaktif dan berkualiti supaya dapat menarik pelancong ke Negeri Perlis. Anda dilantik sebagai Pengurus Projek. Sebagai permulaan, anda membentuk satu pasukan bagi projek ini. Pasukan anda terdiri daripada Pakar Subjek, Pengaturcara, Juruteknik Audio-Visual dan Pereka grafik.

- (a) (i) Name the team member that is not included in your team member. [1 mark]
Namakan ahli pasukan yang tidak disenaraikan dalam pasukan pembangun multimedia anda. [1 markah]
- (ii) State the role of the team member stated in (a)(i). [1 mark]
Nyatakan bidang tugas ahli pasukan yang disebutkan dalam (a)(i). [1 markah]
- (b) (i) Suggest one suitable medium of delivery for your multimedia product. [1 mark]
Cadangkan satu medium penyampaian yang sesuai untuk produk multimedia anda itu. [1 markah]
- (ii) Justify your answer. [1 mark]
Berikan justifikasi anda. [1 markah]

30. Ravi had created a database of his customer’s information. The data that he had stored in his database are shown in Table 4 below.

Ravi telah membangunkan pangkalan data yang menyimpan maklumat semua pelanggannya. Data yang disimpan di dalam pangkalan data tersebut adalah seperti yang ditunjukkan di dalam Jadual 4 di bawah.

Customer ID	Company Name	Contact Name	Address	City	Postal Code	Country
ALFKI	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
ANATR	Ana Trujillo Emparedado	Ana Trujillo	Avda. de la Constitución 2222	México D.F.	05021	Mexico
ANTON	Antonio Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico
AROUT	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK

Table 4
Jadual 4

Based on the Table 4 , answer the following questions.
Berdasarkan Jadual 4 , jawab soalan berikut.

- (a) (i) Identify X. [1 mark]
Kenal pasti X [1 markah]
- (ii) Define X. [1 mark]
Jelaskan maksud X. [1 markah]
- (b) (i) Which Information System components does Ravi represents if he is the one who will use the database? [1 mark]
Komponen Sistem Maklumat yang mana satukah diwakili oleh Ravi sekiranya dia yang menggunakan pangkalan data tersebut? [1 markah]
- (ii) Define the component. [1 mark]
Berikan definisi komponen tersebut. [1 markah]

SECTION C
Bahagian C

[14 marks]
[14 markah]

This section consists of **three** questions. Answer **two** questions only:

*Bahagian ini mengandungi **tiga** soalan. Jawab **dua** soalan sahaja:*

- (i) **Question 31**, and
Soalan 31, dan

- (ii) **Questions 32 or Questions 33.**
Soalan 32 or Soalan 33.

31. Figure 16 shows a holiday package in a web site.
Rajah 16 menunjukkan pakej percutian dalam satu laman web.

Destination	Normal Price
MADRAS	RM 2300
BOMBAY	RM 2800
MUMBAI	RM 3000

25% DISCOUNT

Retails Direct's NEW
Smart Travel Bonanza!

- Splendid Indian Destinations!
- Cheapest Airfares!
- Speedy Hotel Bookings!

Book Now!

Figure 16
Rajah 16

Based on Figure 16, you are asked to develop a program to calculate the final package price of each destination.

Berdasarkan Rajah 16, anda dikehendaki membina satu program untuk mengira harga akhir bagi setiap pakej destinasi.

- (a) (i) Identify two variables that you need to declare.
Kenalpasti dua pemboleh ubah yang perlu diisytihar.

- (ii) Justify your answer.
Berikan justifikasi anda.

[3 marks]
 [3 markah]

(b) Write a pseudo code OR a flow chart for the program.

Tulis kod pseudo ATAU carta alir untuk program tersebut.

[4 marks]

[4 markah]

32. Co-curriculum activities are important to students. Students need to join a society, a sport club and a uniformed body. Most students have problems in selecting suitable co-curriculum activities for themselves due to lack of information on the co-curriculum activities in school. You and your team are selected to produce a multimedia program for the promotion of your Computer Club and to recruit new members.

Aktiviti kokurikulum adalah penting kepada pelajar. Pelajar perlu menyertai persatuan, sukan dan badan beruniform. Kebanyakan pelajar menghadapi masalah memilih aktiviti yang sesuai kerana kekurangan maklumat mengenai aktiviti kokurikulum yang terdapat di sekolah. Anda dan kumpulan anda dipilih untuk menghasilkan program bagi mempromosikan Kelab Komputer sekolah dan menarik lebih ramai penyertaan ahli baru.

(a) Based on the situation above, complete the table below :

Project Title	
Objective(s)	
Targeted Audience	

[3 marks]

[3 markah]

(b) Draw the story board for the main page of your multimedia presentation which include at least 3 multimedia elements and interactivity.

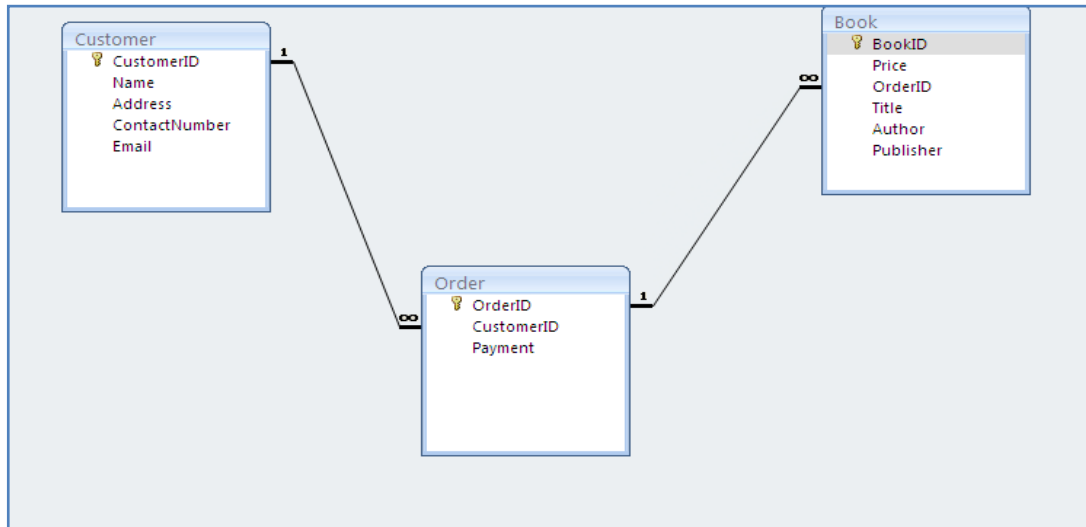
Lukiskan papan cerita bagi muka depan persembahan multimedia yang mengandungi sekurang-kurangnya 3 elemen multimedia dan interaktiviti.

[4 marks]

[4 markah]

33. Figure 17 shows the database design of AAA Book Store. Figure 17(a) shows relationship between the tables. Figure 17(b) and 17(c) shows the data entered into BOOK table and CUSTOMER table. Figure 17(d) and 17(e) show query designs.

Rajah 17 menunjukkan pangkalan data bagi Kedai Buku AAA. Rajah 17(a) menunjukkan hubungan antara jadual. Rajah 17(b) dan 17(c) menunjukkan data yang dimasukkan ke jadual BOOK dan jadual CUSTOMER. Rajah 17(d) dan 17(e) menunjukkan rekabentuk kuiri.



(a)

Book					
BookID	Price(RM)	OrderID	Title	Author	Publisher
C001	RM56.00	OD006	Computers : Tools for Information Age	H.L Capron	Pearson Technology
C002	RM80.00	OD007	Computers in Your Future	Bill Daley	Prentice Hall
D001	RM78.00	OD006	Discovering Computers 2011	Shelly Vermaat	Course Technology
I001	RM68.00	OD006	Information Technology in Theory	Pelin Aksoy	Thomson Course Technology
L001	RM26.00	OD002	Let The Great World Spin: A Novel	Colum McCann	The Random House, Inc
M001	RM70.00	OD007	Multimedia Concepts and Practice	Stefan McGloughlin	Prentice Hall
T001	RM46.00	OD001	The Book of General Ignorance	John Llyod & John Mitchinson	Crown Publishing Group
T002	RM19.00	OD003	The Girl With the Dragon Tattoo	Stieg Larson	The Random House, Inc
T003	RM68.00	OD005	The Immortal Life of Henrietta	Rebecca Skloot	Crown Publishing Group
T004	RM35.00	OD005	The Side of Brightness : A Novel	Colum McCann	Metropolitan Books
W001	RM48.00	OD004	Worst Code	James Patterson & Michel Ledwidge	Little, Brown and Co

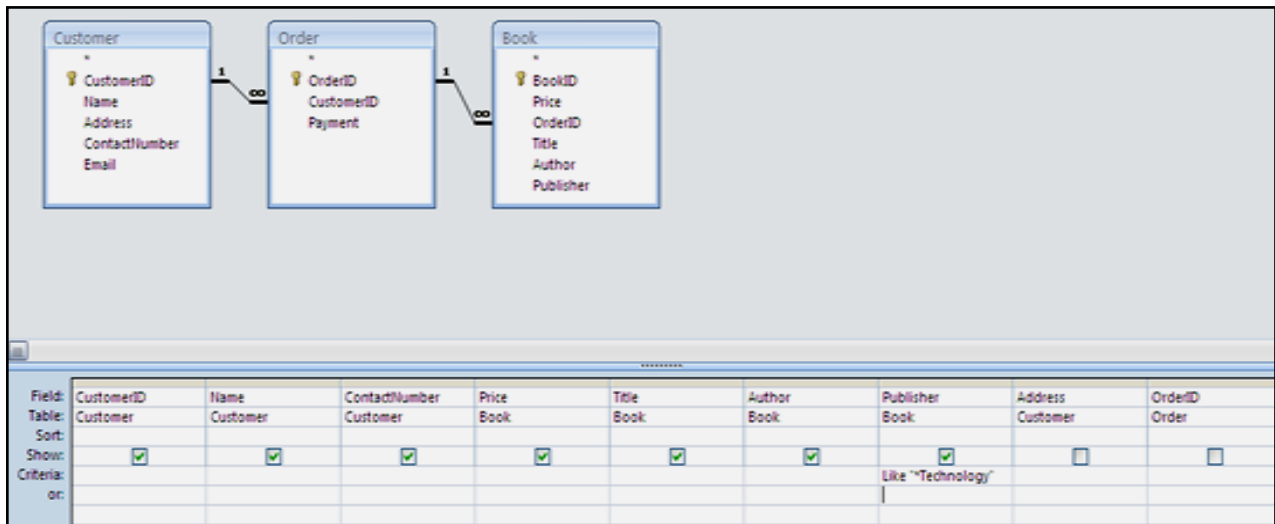
(b)

Customer				
CustomerID	Name	Address	ContactNumber	Email
C001	Fadzilah Fadzil	SMK Derma	0195264778	fadz@derma.com
C002	Azzizarina Mehat	SMK Arau	0124567891	azzi@smkarau.edu.my
C003	Zalita Awang	SMK Syed Ahmad	0126356458	zalita@smksyahmad.edu.my
C004	Kabilan Rajasekaran	SMK Tg Suleiman	0124256312	kabilan@gmail.com
C005	Marzita Ismail	SMK Sy Hassan	0175246871	marzita@yahoo.com
C006	Faridah Abd Fatah	SMK Perlis	0193564784	faridah@gmail.com
C007	Julie Mozianda Ahmad	SMK Kuala Perlis	0194447577	julie@smkkuala.edu.my

(c)

Order		
OrderID	CustomerID	Payment
OD001	C005	Cash
OD002	C003	LO
OD003	C001	LO
OD004	C002	Cash
OD005	C004	Cash
OD006	C006	LO
OD007	C007	LO

(d)



(e)

Figure 17

Rajah 17

Based on Figure 17,
Berdasarkan Rajah 17,

- (a) Draw a table to show the outcome if the query in Figure 78(d) is run.
Lukis jadual untuk menunjukkan hasil jika kuir di Rajah 17(d) dilaksanakan.

[3 marks]

[3 markah]

- (b) Create a query design to list the customers who paid by cash for books less than RM50.00.
The query should include Customer Name, BookID, Title, Price and Payment.
Bina rekabentuk kuir untuk menyenaraikan pelanggan yang membayar secara tunai untuk buku yang kurang daripada RM50.00. Kuir tersebut perlu mengandungi Customer Name, BookID, Title, Price dan Payment.

[4 marks]

[4 markah]