

SPM 2008 - Section A

Answer all questions. Each answer carries one mark.

1. State the name of the first generation computer. _____

2. **Laila has to send** a document file containing **confidential information** by e-mail to her manager. What Laila has to do **to prevent unauthorised access** to the contents of the file?

- A. Back up the file
- B. Encrypt the file
- C. Install firewall
- D. Scan the file for viruses

3. Figure 1 shows the information processing cycle.

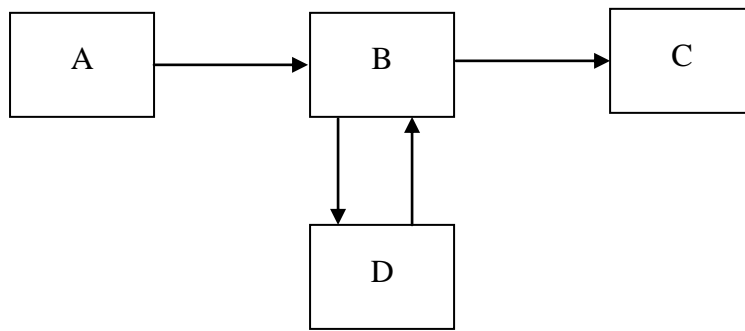


Figure 1

Choose A, B, C or D for each of the following functions.

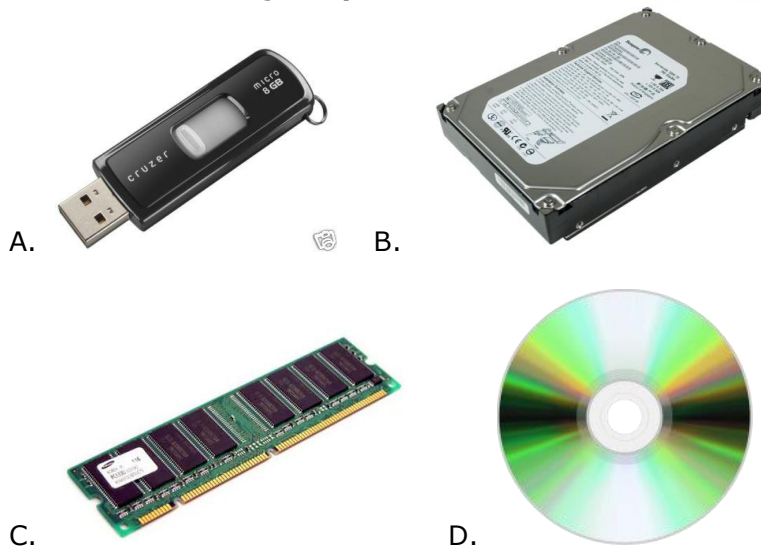
(i) Display processed data

(ii) Store data, instructions and information for future use.

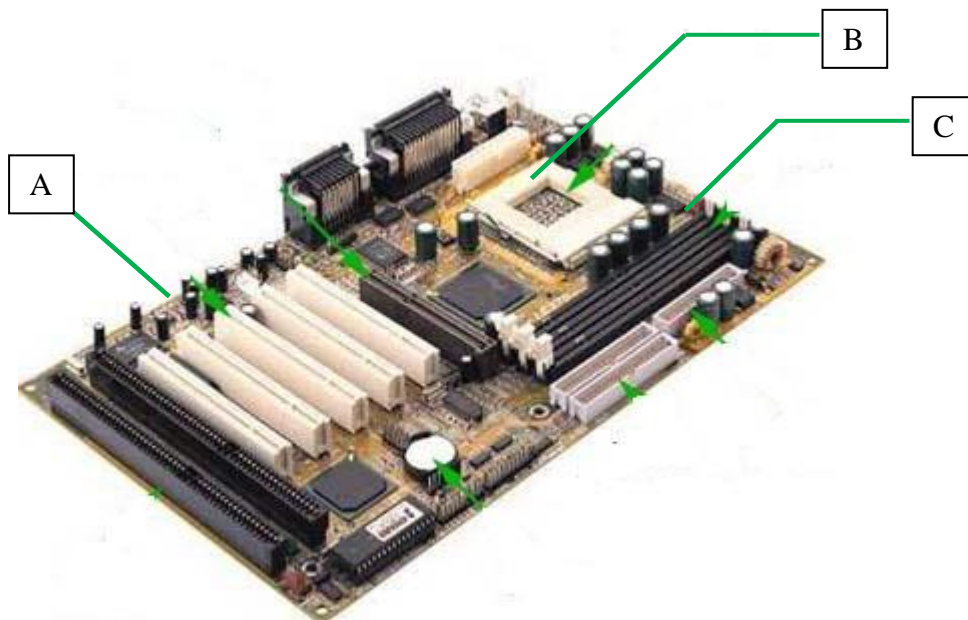
4. State whether the following statement is **True** or **False**.

Storage controls and coordinates operations in a computer system.

5. Which of the following is a **primary storage** device?



6. Figure 2 shows a motherboard.



A, B and C are some of the slots found in the motherboard. Which slot is to be used to fix **network interface card (NIC)**.

7. Figure 3(a) and 3(b) show an operating system interface.

```
Linu.2[35]# cd 29lu
Linu.2[36]# ls
Annuce.html linux5.gif search.cgi.bak contact.html
Index.html links.html notes.html search.cgi
Linux.2[37] date
Mon Dec 30 19:43:49 EST 2002
```

Figure 3 (a)



Figure 3 (b)

i) State the **name** of the operating system in Figure 3(a)

ii) Identify the **user interface** shown in Figure 3(b)

8) **Figure 4** shows the network design for a computer laboratory.

Computer **N1** controls access to resources on the network.

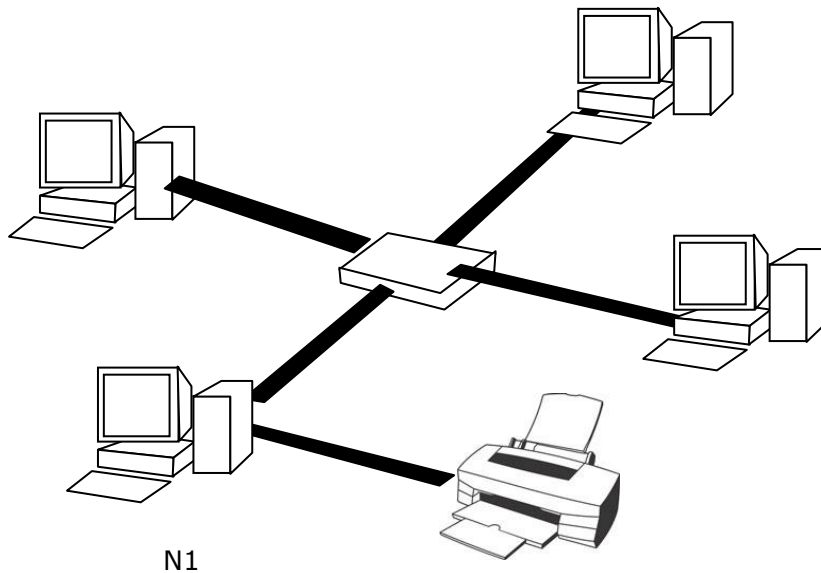


Figure 4

Based on Figure 4, **state**

i) the function of N1

ii) the name of the **network topology**

9. Figure 5 shows a network communication device.



Figure 5

State the name of the device.

10. Table 1 shows the characteristics of a cable used in a wired network system.

Characteristics of cable
<ul style="list-style-type: none">- consists of thin strands of glass- uses light to transmit signal

Table 1

Based on Table 1, state

i) the name of the cable

ii) the function of the cable

11. Which of the following are **network operating system**?

- | | |
|----------------|-------------------|
| I. Windows NT | A. I, II and III |
| II. Windows XP | B. I, II and IV |
| III. LINUX | C. I, III and IV |
| IV. UNIX | D. II, III and IV |

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

Animation is the creation of illusion of movement by displaying a series of still images in sequence.

13. Which is the following **cannot** be used to produce multimedia?



A.



B.



C.



D.

14. Figure 6 shows a layout drawn during a **multimedia production** phase.

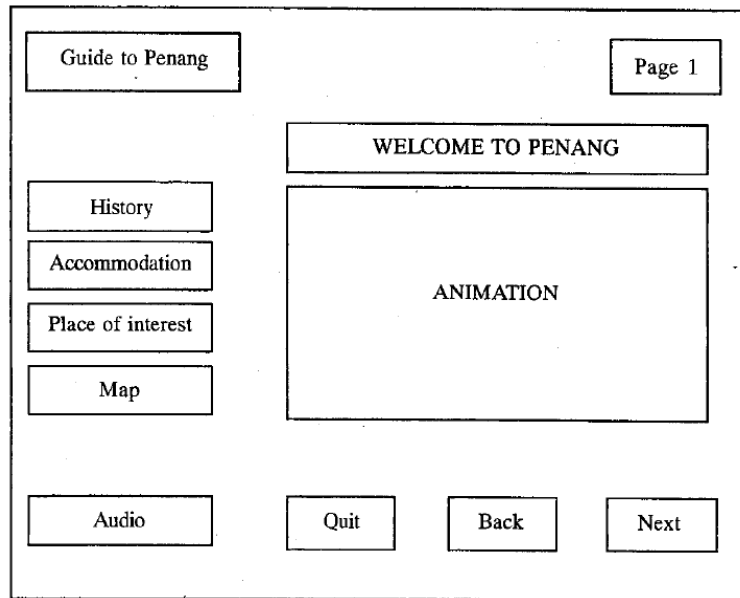


Figure 6

State the name of the **phase**.

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

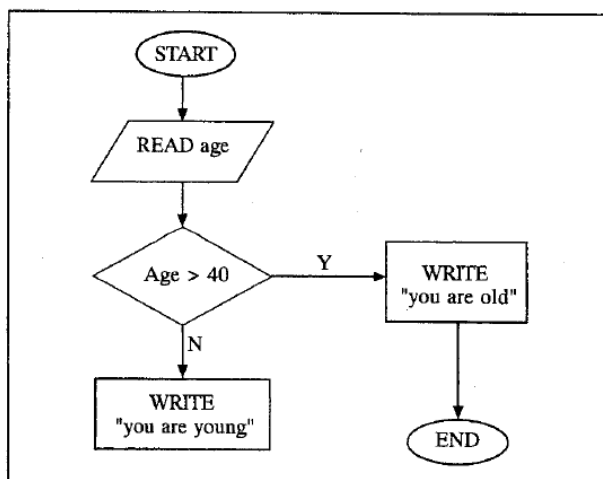
A programming language is a set of rules that can be used to tell a computer what tasks to carry out.

16. Complete the following statements by filling in the blanks.

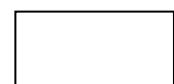
A _____ level programming language uses codes,
_____ and is machine dependent.

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

Figure 7 shows the flow chart of the a program



The above flow chart has a **selection control structure**.



18. Complete the following statements by filling in the blanks.

In the _____ phase, a solution is represented in the form of _____, flow chart and logic structure.

19. Which of the following characteristics are related to **an object-oriented programming approach**.

- I. Main routine is broken into smaller sections.
- II. Data and instructions are separated
- III. Data and instructions are encapsulated into a single unit
- IV. The programming language is event-driven

- A. I and II
- B. I and IV
- C. II and III
- D. III and IV

20. State the **first phase** and **third phase** of program development

i) First phase

ii) Third phase

21. Table 2 shows tasks carried out during a program development cycle.

P	Write program
Q	Draw user interface
R	Identify input and output
S	Produce the user guide
T	Check for errors

Table 2

Based on Table 2, select P, Q, R, S and T for the following phases of the program development cycle :

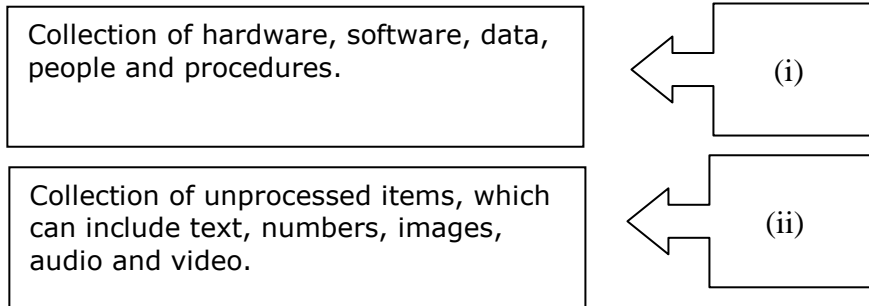
I) Problem analysis

II) Documentation

22. Table 3 shows some terms used in information and communication technology.

Data
Information System
Information

Choose the terms shown in Table 3 which match the following statements :



i) _____

ii) _____

23. Table 4 shows some terms used in information and communication technology.

Secondary key	DMBS	Foreign key	database
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Choose the terms shown in Table 4 which match the following statements :

i) A collection of data organised in a systematic way

ii) A field key that must match a primary key value in another table

24. Table 5 shows a sample data file

Index No	Name	Gender	Class
A101	Ali and Abu	M	5SN1
A102	Arita a/p Rama	F	5SN1
A110	Wong Tat Meng	M	5SN1
A118	Sidek bin Muda	M	5SN1

X {

Y

Based on Table 5, state what X and Y represent

X : _____

Y : _____

25. The following list are activities carried out by Mary and her team when developing the school's library information system.

- Interview the librarians, teacher-in-charge of the library and the principal
- Distribute questionnaires to 50 students chosen at random
- Prepare a report for the system requirement

State the name of the phase in the system development

7. Figure 5 shows the hierarchy of data.



Name :

(i) **K** : _____ (ii) **L** : _____

Section B

This section consists of **five** questions. Answer all questions.

26. Electronic mail is one of the most popular services on the internet. It makes business managers and administrators more productive by allowing them to share information, ideas and opinions easily.

In relation to electronic mail, state **two examples** in each case which can be considered as:

a) Ethical

i) _____

ii) _____

b) Law breaking

i) _____

ii) _____

27. Figure 8 shows two different network topologies.

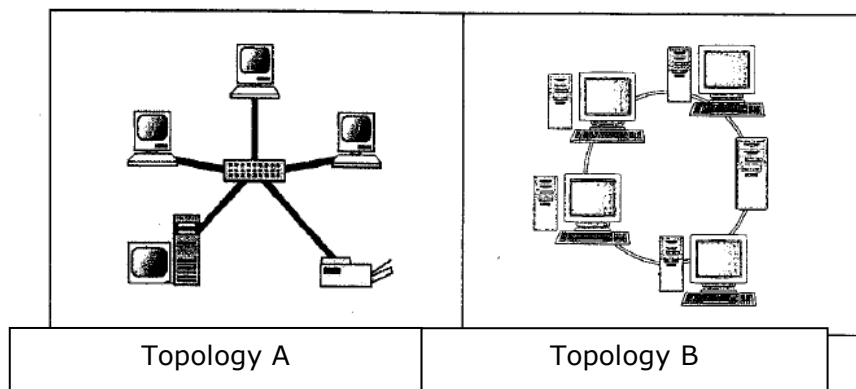


Figure 8

Based on Figure 8 :

- a) State the difference on how data being transmitted in Topology A and Topology B

- b) State two advantages of Topology B.

i) _____

i) _____

28. The following is a text on network communication technology for a company.

Swiss Chemical Company (SCC) has approximately 15,000 employees in more than 30 countries. SCC uses three types of **network communication technology**; X, Y, and the internet, to provide network connectivity as well as to ensure the organisation's information security for its employees and business partners. Employees use X to access company information, using assigned userID and password. Authorised business partners of SCC use Y to access and share transaction information from different locations worldwide.

Based on the text:

a) State the type of network communications technology used in X and give reason.

b) Give one differences between Y and the internet.

29. Figure 9 shows the flow chart for a program that converts **US Dollar (USD) to Ringgit Malaysia (RM)**

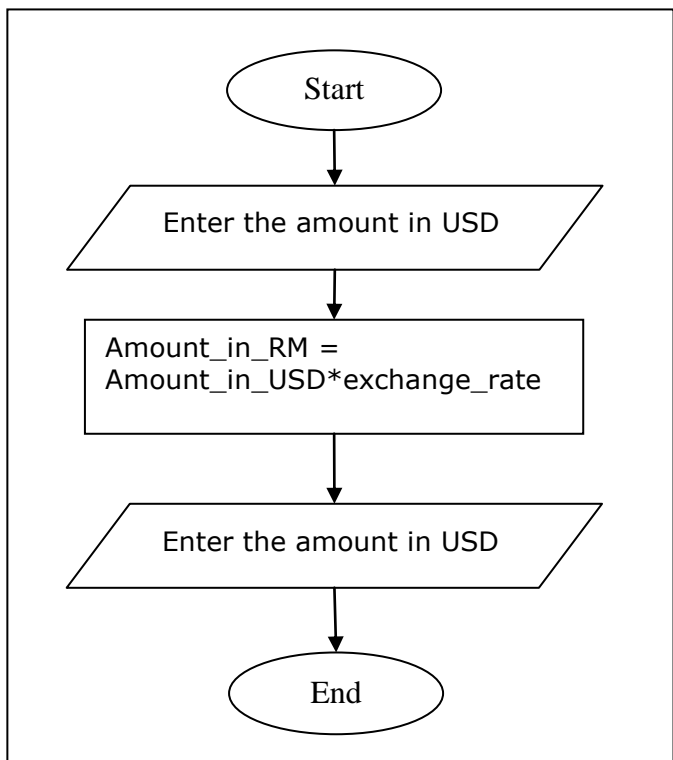


Figure 9

Based on Figure 9:

- a) Which element in the program can be defined as a constant?

Give one reason for your answer.

- b) What control structure is used?

Give one reason for your answer.

30. Figure 10 (a) shows two tables created in the school co-curriculum system at Sekolah Menengah Batu Tiga.

STUDENT			CO_CURRICULUM			
Stu_Id	Name	Class	Stu_Id	Cocu	Position	Grade
S001	Zulkifli	P4A	S001	Computer Club	Member	A
S002	Tan Pei Wen	P4C	S002	Traffic Warden	Member	B
S003	Arifin	S5A	S004	Traffic Warden	President	A
S004	Alecia	S5A	S004	Computer Club	Secretary	C
			S002	Computer Club	President	B
			S003	Canteen Warden	Member	A

Figure 10

Figure 10 (b) shows a Simple Query Wizard.

Figure 10 (c) shows a query design to retrieve information based on a certain criterion.

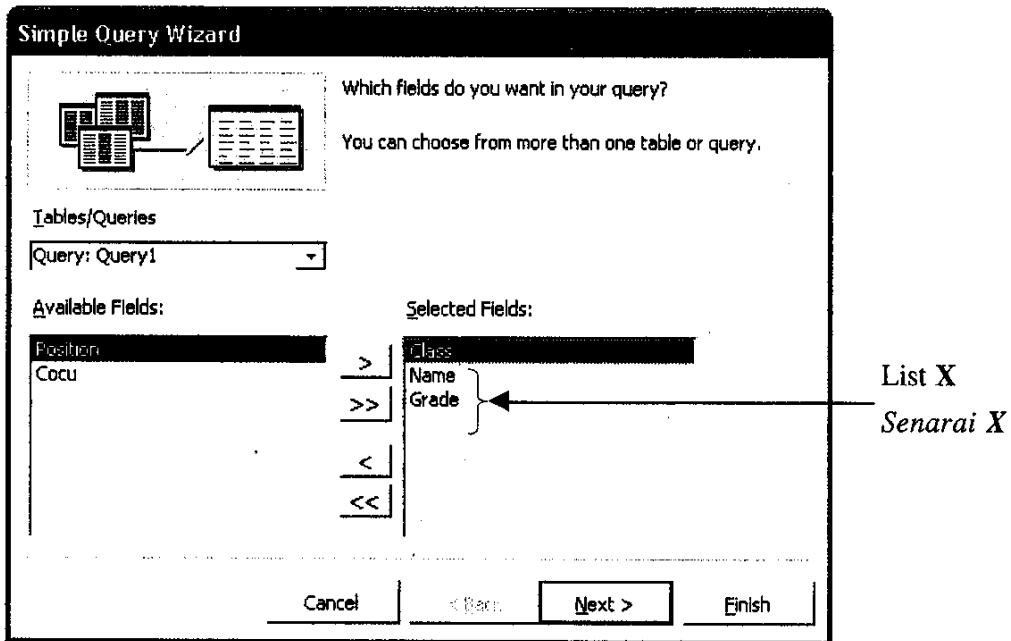


Figure 10(b)

- a) Based on Figure 10 (a) and Figure 10 (b), state one more field that should be moved to the list X in Figure 10 (b), to view the grades of co-curricular activities for each student.

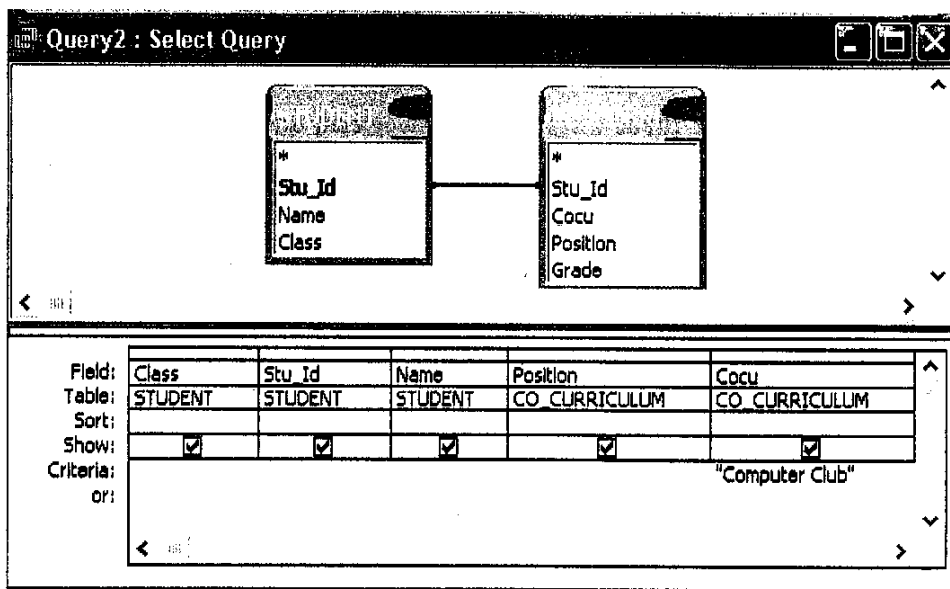


Figure 10 (c)

- b) Based on the query design in Figure 10 (c), complete the query results below to show the information obtained.

Class	Stu_ID	Name	Postion	CoCu
P4A				
P4C				
S5A				

Section C

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

- i) Questions 31 or Questions, and
- ii) Question 33

31. Figure 11 is an excerpt from a daily newspaper



Figure 11

Based on the excerpt on Figure 11

- (a) Describe two suitable **security measures** that should be taken by the bank to prevent computer crime.

- b) Explain why bank clients should be protected under the Malaysian Cyber Law?

32 Figure 12 shows a network communication system between two companies, Syarikat Kerjasama Sdn. Bhd. In Kualan Lumpur, Malaysia and Syarikat Maju Pte. Ltd. In Singapore.

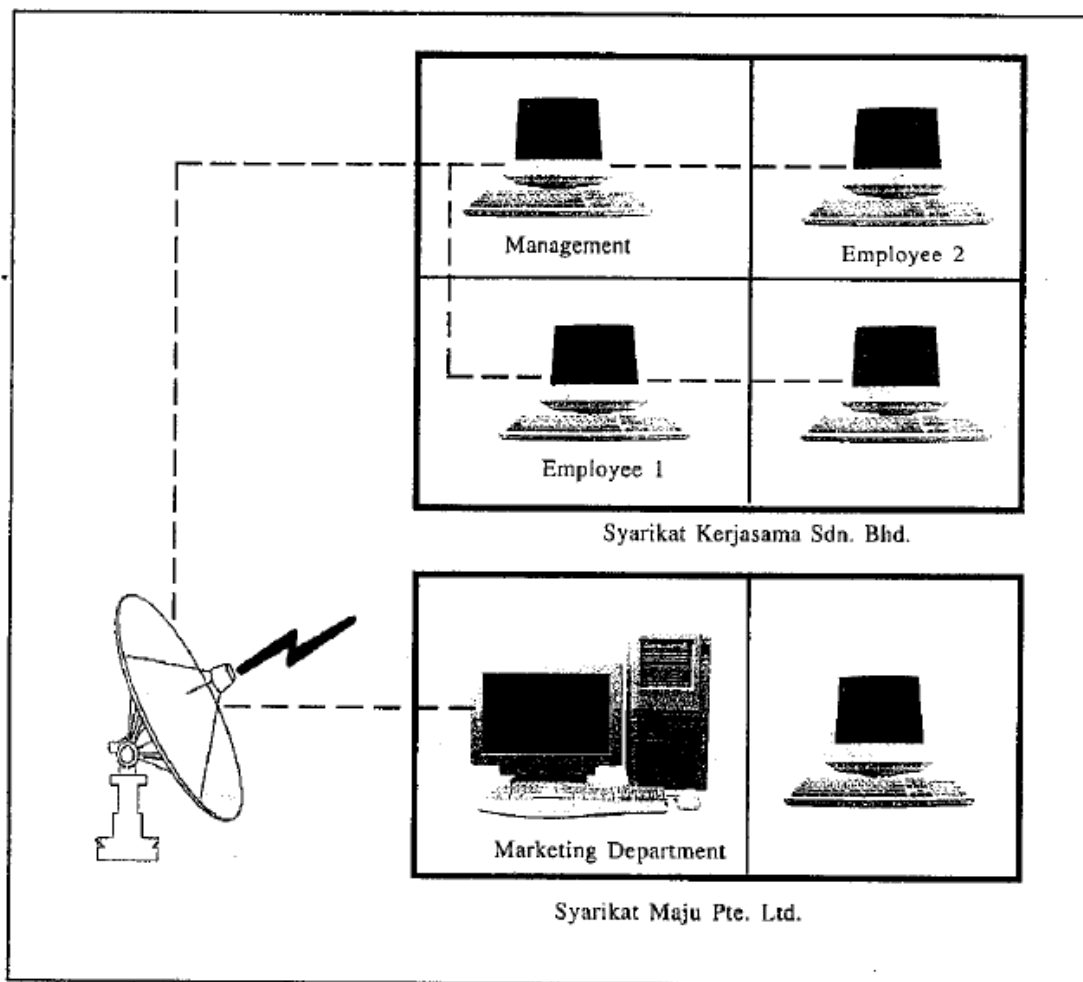


Figure 12

Based on Figure 12

- a) **Describe** the two types of computer network used by Syarikat Kerjasama Sdn. Bhd. In Kuala Lumpur, Malaysia.

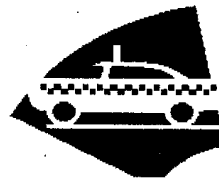
- b) Describe the types of network communication technologies used between both companies

33. The following statement explains the operation of a taxi company.

Smart Cab is a taxi company operating in Seri Wangi Mall. The company is going to use computers for its coupon system.

The coupon should display the following data items :

- Receipt number (auto generated) -
- Cashier's name
- Date
- Fare



Based on the above statements :

- a) **State** the data type for the **first three** data items required for the coupon system

- b) Using the information and data given in the statement, **create** the output of the coupon that will be used by the taxi company.

Smart Cab	
Receipt Number : 20081	Date: 13/4/09
Cashier : Amira Nabila	
RM 34.00	