# SPM ICT 2007

Section A : *Answer all questions*. Write your answers in the spaces provided in Answer Sheet. Each answer carries **one mark**.   [36 *marks*]

1.   Figure 1 show the technologies used in three different generations of computers

| A | B | C |
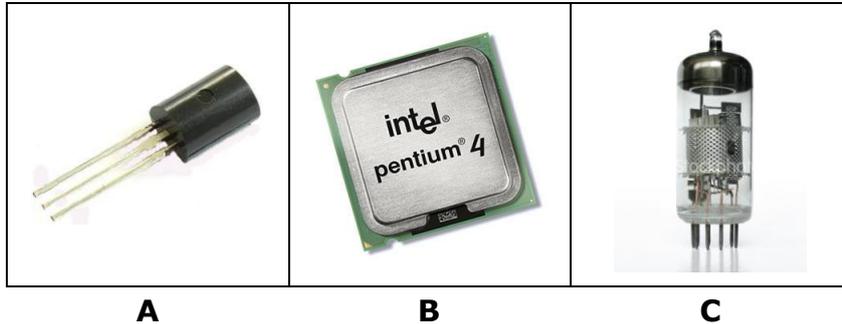
Match **A**, **B** or **C** with the following generations of computer technology.

(i) 1st Generation Computer   ☐

(ii) 2nd Generation Computer   ☐

2.   State one approach in programming.

_____

3.   Figure 2 shows methods of Internet Filtering.

| Internet Filtering |

| Keyword Blocking | **X** | Web Rating System |
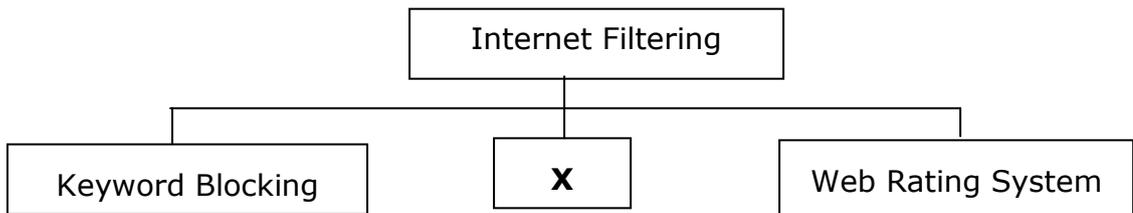
X is _____

4.   Table 1 shows types of computer crimes.

A	Computer Fraud
B	Computer Theft
C	Computer Attack

Based on Table 1, write **A**, **B** and **C** to categorise the following acivities:

i)   E-mail hoaxes, false claims of expertise on certain fields.   ☐

ii)   Tap in the data transmission lines and international transfer of payments to the wrong account.   ☐

5. Figure 3 shows how cryptography works.

| Plaintext | Encrypt → | **H** | Decrypt → | Plaintext |
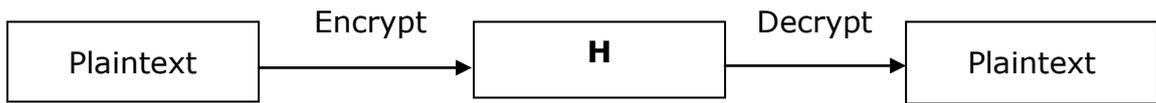
Name **H** : _____

6. Figure 4 shows the information processing cycle.

| **D** | ← | Process | ← | Input |

Process ↓ Storage ↑ Process
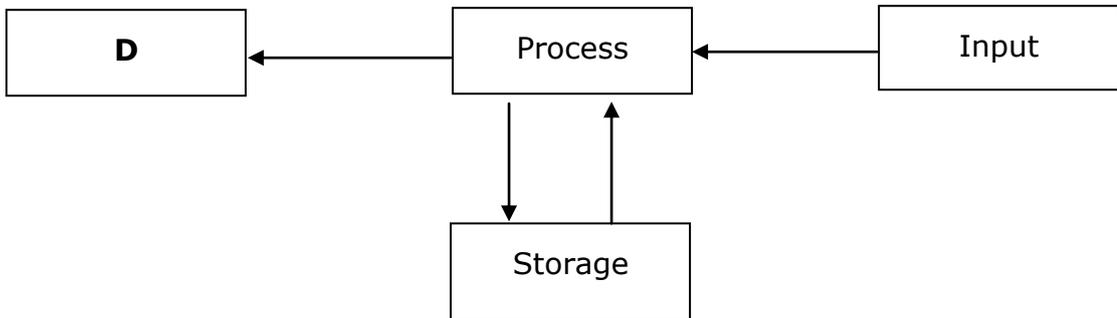
Name **D** : _____

7. Figure 5 shows the hierachy of data.

Bit → **K** → Field → **L** → Database
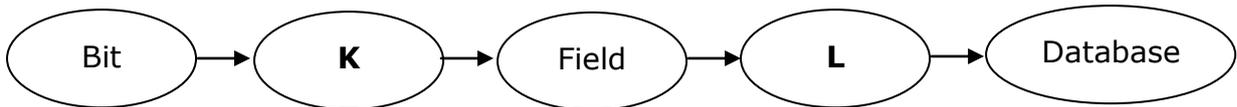
Name :
(i) **K** : _____ (ii) **L** : _____

8. Table 2 shows statements of devices

A	A stationary pointing device with a **ball** on its top or side.
B	A small, flat, rectangle pointing device that is sensitive to pressure and motion
C	A pressure-sensitive pointing device shape like pencil eraser positioned between keys on a keyboard.

Based on Table 2, write **A**, **B** or **C** for the following devices.

i) Touchpad ☐   ii) Pointing Stick ☐

9. Figure 6 shows a computer motherboard.
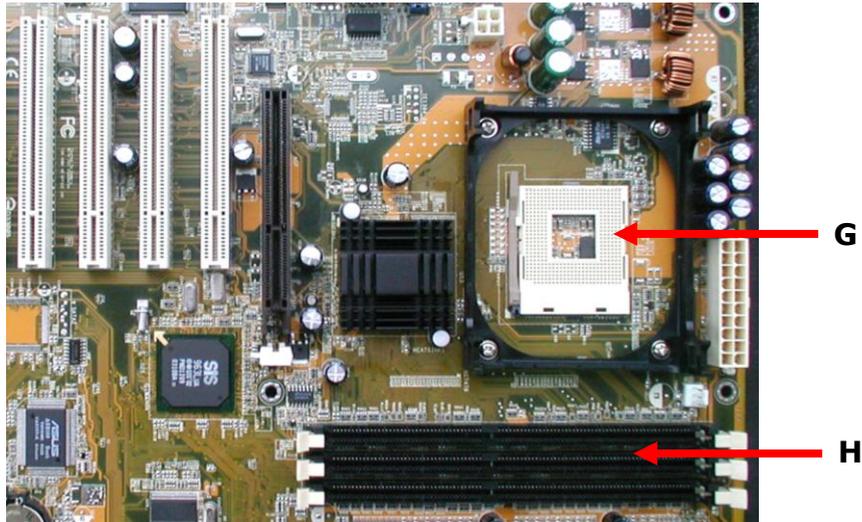
Name

i) **G** : _____   ii) **H** : _____

10. Figure 7 shows network topology A and B.

A   **B**
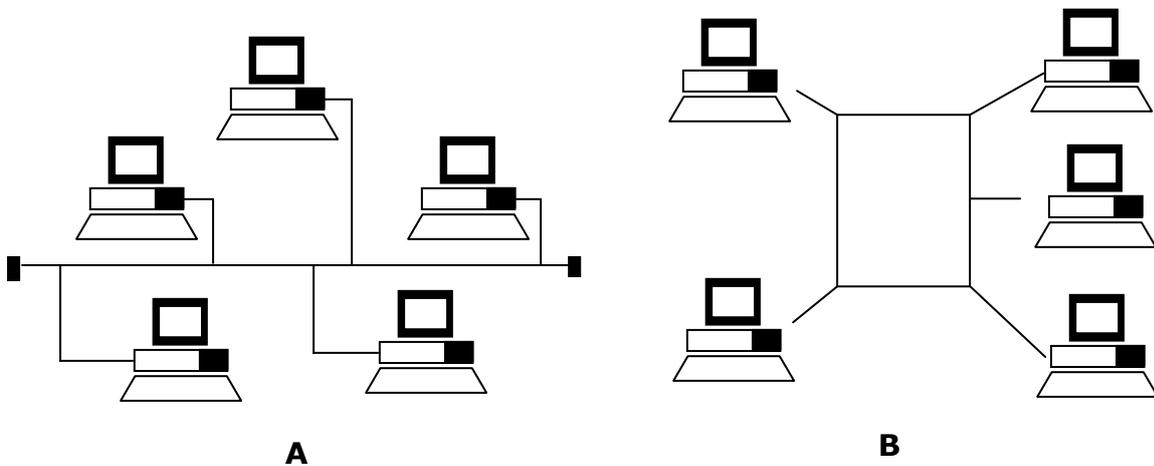
Name the topology

i) **A** : _____   ii) **B** : _____

11. A network that spans a **city** is called a _____

12. Multimedia elements include   text,   animation,   audio,   video,

and _____

13. Table 3 shows a number of editing software used to produce multimedia presentation.

X	Audio editor
Y	Graphic and image editor
Z	Video and animation editor

Based on table 3, match the editing software with the following statement by writing **X**, **Y** and **Z**.

i) Creates effects of action and motion by projecting a set of still pictures.

ii) Adjust individual instrument sounds with a mixer to get the tone of effect wanted.

14. Table 4 shows some steps for two activities used in multimedia production.

Activities	Steps
A	Choose the colours and layout of each individual screen Determine the position of navigation buttons.
B	Package the presentation using suitable software Distribute the presentation for public viewing

Based on Table 4, name the phase which involve the following activities:

i) Activity **A** : _____

ii) Activity **B** : _____

15. A series of step by step instructions telling the computer exactly what to do is called a _____

16. A device that enables you to connect a video camera to a computer and manipulate the input is _____

17. '<' symbols are examples of _____

18. Figure 8(a) and 8(b) show flowchart segments
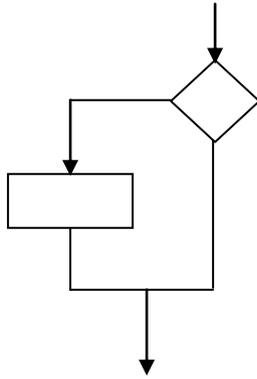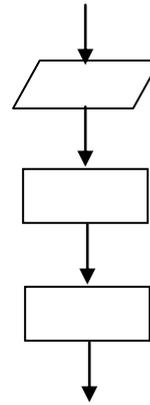
Figure 8(a)   **Figure 8(b)**

Identify the control structure used in

i) Figure 8(a) : _____

ii) Figure 8(b) : _____

19. Figure 9 show program development phases

1	Problem analysis
2	
3	Coding
4	
5	Documentation
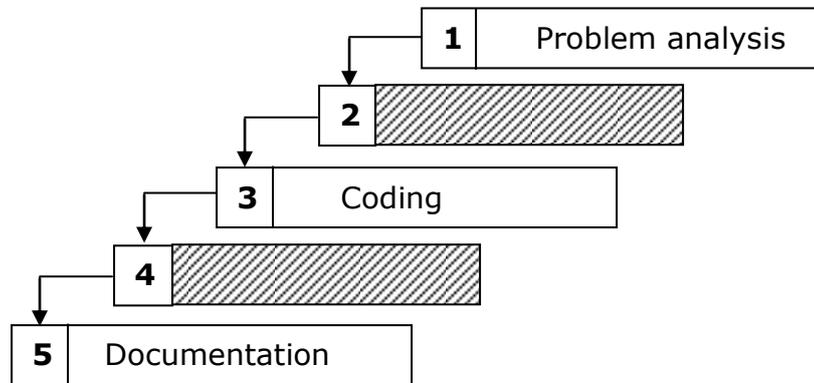
Phase **2** and Phase **4** for the proper program development phase are :

i) Phase **2** : _____

ii) Phase **4** : _____

20. The components of an information system are human, hardware,

software, procedures and _____

21. Figure 10 shows a school data base

B

Studen ID	Name	Class
2396	Azahrina	5A1
3975	Saraswathy	5A1
3981	Tommy	5A2
4782	Wahid	5A2

A

Name

i) **A** : _____ ii) **B** : _____

Question 22 to Question 25 are in statements form. Write **True** or **False** for the following statements:

22. Cyber law is a system of moral standards or values used as a guideline for computer users.

23. A disk scanner is a utility program that reorganises files and unused space on a computer hard disk.

24. A programmer uses flowcharts to code a program.

25. Database Management System (**DBMS**) is a software used in adding, updating, managing, accessing, and analysing data in a database.

Section B : This section consists of five questions. You are required to **answer all questions**.   [20 *marks*]

26. The following is a statement on information privacy.

> **"Information privacy refers to the right of individuals and organisations to deny or restrict the collection and use the information about them"**

Based on the statement, **list four** ways of making personal data **more private**.   [4 *marks*]

i) _____

ii) _____

iii) _____

iv) _____

27. Figure 11(a) and 11(b) show different types of software.

```
Windows XP
MS Office 2003
Adobe Photoshop
Norton Antivirus
Solaris
```
Figure 11(a)

```
Linux Redhat
OpenOffice.org
GIMP
Open LDAP
Tiny OS
```
Figure 11(b)

State four differences between the software listed in Figured 11(a) and Figure 11(b)   [4 *marks*]

Figure 11(a) _____	Figure 11(b) _____
i)	
ii)	
iii)	
iv)	

28. Figure 12 shows a computer network at Bank Sufi. Two networks, Network A and Network B are part of the bank's wide area network. Currently the bank implements two network communications **technology**. Apart from **Internet**, the bank also has its own **intranet** to facilitate their internal communications.
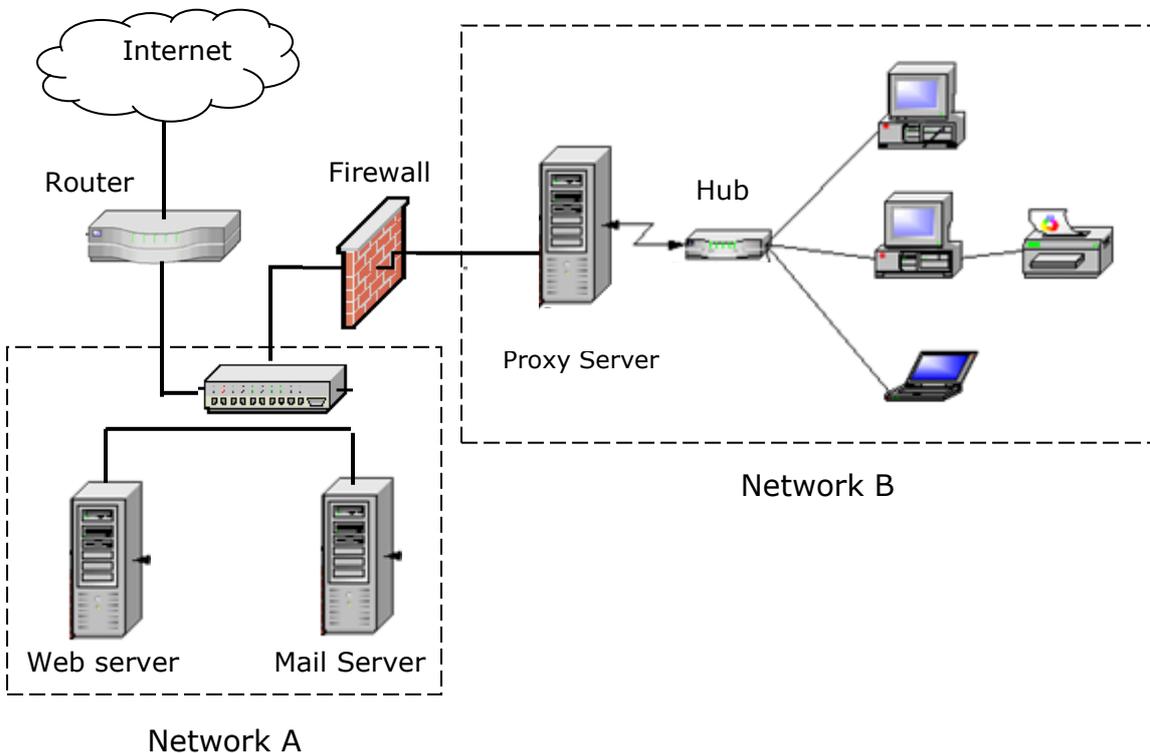
Network B

Network A

State two differences between Network **A** and Network **B** for the bank.

[4 *marks*]

Network A	Network B
i)	
ii)	

29. You keep a data base of your friends' **names, addresses and dates** of birth. The data base is kept in the school server and can be retrieve by other user. [4 *marks*]

    a)   **State two** uses of the information from the data base to be utilized.

        i) _____

        ii) _____

    b)   **State two** problems that may arised by having shared data base.

        i) _____

        ii) _____

30. Table 5 shows two methods how Malisa and David get the informations from an encylopedia. [4 *marks*]

Users	Methods
Malisa	Uses encyclopedia stored on CD
David	Reads from the encylopedia

State four advantages of using an encyclopedia stored on CD.

i) _____

ii) _____

iii) _____

iv) _____

Section C : This section consists of three questions.   [14 *marks*]

You are required to answer two question only:
Question 31 is **compulsory** and **Either** Question 32 or Question 33.

31. SMK Kampung Merdeka plans to upgrade the school's ICT facilities. A computer laboratory is to be equipped with twenty workstations, a hub and a server will be built. In addition, fifteen laptop computer will be provided equipped with wireless network technology. You are hired as the consultant to ensure the smooth running of project.

    a) **Propose** a suitable wired network topology for the computer laboratory. **Justify** your proposal.   [4 *marks*]

       Topology   : _____

       Justification : _____

       _____

    b) **Identify two** hardware devices required to provided Internet access to all the computers at the computer laboratory and also the laptop computer which use wireless access. **Explain** the function of the devices.   [4 *marks*]

Device	Function
i)	
ii)	

32. Bank XYZ Berhad has a computer network system to run their operations between its branches in Malaysia. An unknown man was seen entering the computer control room at its headquarters in Kuala Lumpur after office hours. The following day, the system administrator found that all data in the server were removed and a few computer hardware missing. It was also reported that the bank computer network was down.

    a) **Explain one** possible threat done by the unknown man.   [2 *marks*]

       _____

       _____

       _____

b) After an investigation, the management found that the threats come from the lack of security procedure at the computer control room.

   Explain two actions on **human aspect** on security procedure that should be taken by the management to increase security at the computer control room. [4 *marks*]

33. Figure 13 shows an interface of an automated library system of SMK Indah.

SMK Indah
Library Management System

Book Information

Book ID		Quantity	
Title		Author	
Edition		Year	
Publisher			
Synopsis			

| Update | Menu | Insert | Delete |

Based on Figure 13:

a) **Identify one** data manipulation button and **explain** its function.

   Button : _____ [2 *marks*]

   Function : _____

   _____

b) **Which** field is the **primary key**? **Justify** your answer. [4 *marks*]

   Field : _____

   Justification : _____

   _____