JABATAN PELAJARAN NEGERI JOHOR

PEPERIKSAAN PERCUBAAN

SIJIL PEPERIKSAAN MALAYSIA 2008

INFORMATION AND COMMUNICATION TECHNOLOGY

Kertas 1

PERATURAN PEMARKAHAN

Answer Sheet 1A
Helaian Jawapan 1A

Nama : **No. K.P :**

1. B
2. B
3. B
4. D
5. A
6. C
7. B
8. D
9. B
10. C
11. TRUE
12. TRUE
13. i) FALSE
    ii) TRUE
14. i) TRUE
    ii) FALSE
15. i) B
    ii) C
16. i) B
    ii) C
    iii) A
    iv) D
17. RETINA , BLOOD VESSELS
18. SOUND
    VIDEO
19. TOPOLOGY
20. PRIMARY
21. INTERPRETER
22. LINEAR
23. PROCEDURES
    SOFTWARE
    DATA
24. COPYRIGHT INFRINGEMENT
25. STORAGE , PROCESS

SECTION B

QUESTION 1:

(a) Spreadsheet

(b)

- creating, editing and formatting worksheet in rows and columns
- containing formulas which can perform calculations on the data in the worksheet
- making charts, which depicts the data graphically such as column charts or pie charts
- what-if analysis, the ability of recalculating the rest of the worksheet when data in a worksheet changes.

(c)

- macro
- lookup
- protection
- pivot table

QUESTION 2:

(a) scanner / video camera / camera / hand phone with camera

(b) any reliable answers

(c) time frame AND card

QUESTION 3:

(a) Slander and Pornography

(b)

- can develop into a society that disregards honesty and truth
- can develop bad habit of spreading untruths and rumours
- can lead to unnecessary argument
- can cause people to have negative attitudes towards another person

(c)

- keyword blocking
- site blocking
- web rating systems

QUESTION 4:

(a) Documentation

(b)

- Documentation is very valuable if the program requires changes in the future as documentation enables new programmers to learn about existing programs much easily and quickly.
- Documentation becomes especially valuable when the program requires changes in the future.

(c)

- Length of the and Width of the land
- Area of the land

QUESTION 5:

(a) star

(b) ring / token ring

(c)

Advantages
Power of client and servers are used jointly
Administration e.g. backup and file-sharing can be dealt with by server
Specialist servers such as proxy, print, e-mail servers can be used to reduce bottlenecks.
Can store application programs on servers – much easier to update.
File servers enable logging on any client
Passwords/security – backups centralised.
Less idle-time i.e. better use of resources.
Very flexible – Host controls the communication protocol.

SECTION C

QUESTION 1:

(a) Explain two benefits of having an automated system for CARE Medical Centre.
1. Data Integrity is assured.
A database system ensures that data is correct for all files. When a user modifies or update the patient's data in a file in a database, the same data will change automatically in all files. This is called data integrity.

2. Minimize data Redundancy
With a database system, data of a patient is recorded only once in registration office and stored in a database and can be accessed by other users in different department, for example medicine department. There's no need to repeat recording the same data in other computers.

3. Data can be shared
A database system allows sharing of data by the whole organization of care medical centre.

(b) Which field is the primary key? Justify your answer.
Patient ID.
Justification: Patient ID is most suitable as primary key because the value uniquely identifies each record in a database. There's no same patient ID for 2 persons. The value of primary key could not be null, and since every patient has patient ID, so it is most suitable as primary key.

(c) Explain the function of 'Update' and 'Delete' button.
Update button is used for updating or changing the data in a database table.
Delete button is used for terminate certain file in a database table.

QUESTION 2:

a) Local Area Network / LAN

Reason :

a. operate within a limited physical area
b. consists less than 500 interconnected devices across several buildings

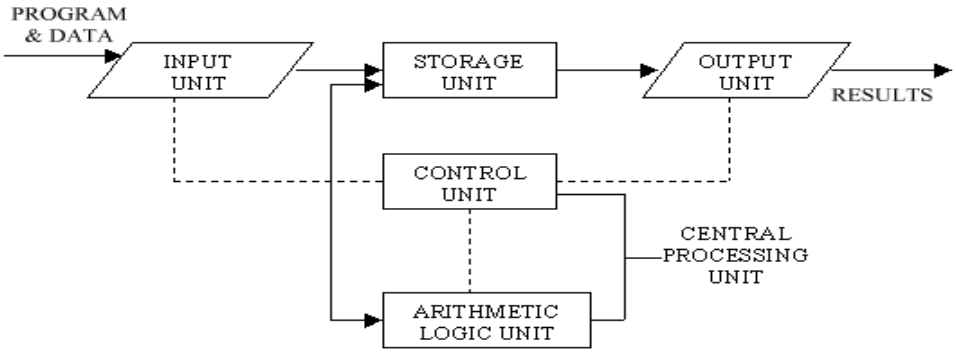
b) Client/Server network and Peer-to-Peer Network

Difference :

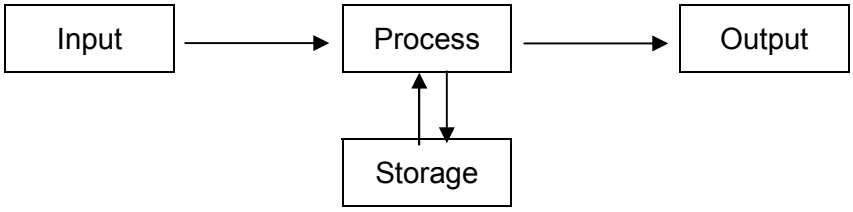
Client / Server	Peer-to-Peer
Server has the control ability while clients don't	All computers have equal ability
Higher cabling cost	Cheaper cabling cost
It is used in small and large networks	Normally used in small networks with less than 10 computers
Easy to manage	Hard to manage
Install software only in the server while the clients share the software	Install software to every computer
One powerful computer acting as server	No server is needed

QUESTION 3:

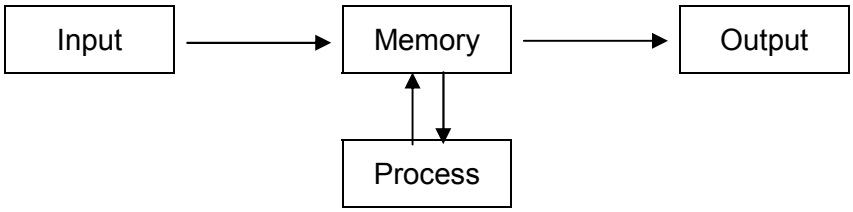
a) Draw a block diagram to illustrate the information processing cycle and give a brief description.



Alternative 1



Alternative 2



Alternative 3

The information processing cycle involves the cycle of input, process, output, and storage.

The information cycle involves the input of data, processing data into information, output the information and storing the results (information).

Data – collection of unorganised facts, which include words, numbers, images, and sounds

Information - data that is organised, has meaning, and is useful e.g. reports, newsletters, a receipt, or a check

Input – data that is entered into a computer

Output – processed results

A computer is an electronic device which operates under the control of instructions stored in its own memory, that can accept data (input), process the data according to specified rules (process), produce results (output), and stores the results for future use (storage)

b) Explain two differences between G (open software) and H (proprietary software).

Open Software	Proprietary Software
• purchased with its source code, together with the permission to modify and further distribute the program under the same condition	• purchased usually without its source code, and no permission to modify or distribute the program under the same condition
• code made available to the public – allow customers to personalize the software to meet their needs	• privately owned software limited to a specific vendor or computer model
• users can modify the software to share their improvements with others	• users cannot modify the software to share the improvements with others

c) Explain two differences between M (RAM) and N (ROM).

RAM (Random Access Memory)	ROM (Read Only Memory)
• stores data and instructions temporarily, disappears when power to computer is switched off	• store data, instructions or information permanently, recorded when the chip is manufactured (called firmware)
• volatile memory – content (data and instructions) lost on failure of power supply or when the computer is switched off	• non-volatile memory – content not lost content on failure of power supply, also known as non-volatile memories
• holds instructions to be executed and data to be used with those instructions • holds instructions and data while they are being processed by the CPU • stores instructions to execute a programme to allow the CPU to follow instantly the set of instructions	• stores some standard processing programs supplied by the manufacturers to operate the personal computer • stores basic input/output program that examines and initializes various equipment attached to the PC when the switch is made ON.
• can be read and written – data and instructions can be read and written by the CPU	• read only memory - can be read by the CPU but cannot be changed
• randomly select and use any location of the memory directly to store and retrieve data, takes the same time to any address of the memory as the first address	•

d) Explain the difference between O (word processing software) and P (spreadsheet software).

Word Processing Software	Spreadsheet Software
• used to create, edit, and format textual documents such as letters, memos, reports, fax cover sheets, mailing labels, and newsletters	• used to create, edit, and format worksheets
• allow user to create, edit, format, print, and save documents	• allow users to organize data in rows and columns
• features include o AutoCorrect o AutoFormat o Columns o Grammar Checker o Tables o Templates o Thesaurus o Tracking Changes/Comments o Voice Recognition o Web Page Development	• features include o Function o Recalculation o Charting