

**Section A - [36 marks]**

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

1 Figure 1 shows one type of biometric device.



Figure 1 - Rajah 1

Based on Figure 1,

(i) **State** the name of the device. \_\_\_\_\_

(ii) **State** the function of the device. \_\_\_\_\_

2 Figure 2 shows part of an algorithm for a web page filter.

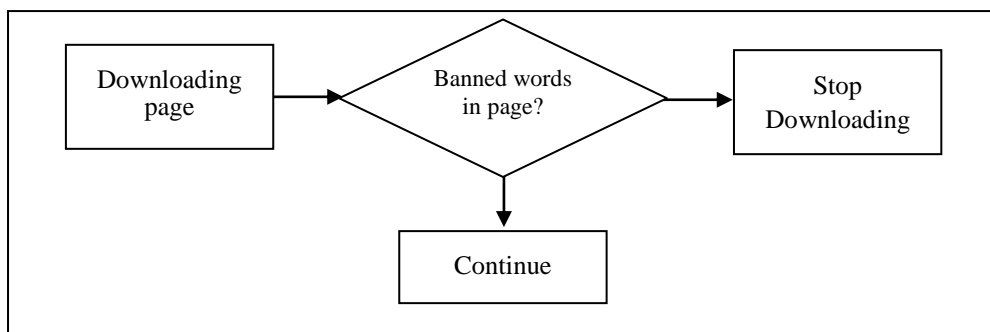
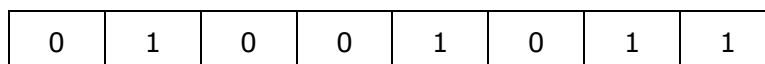


Figure 2

**State** the filtering method used in the algorithm. \_\_\_\_\_

3 Figure 3 shows a combination of 0s and 1s that represent character 'K' in ASCII coding scheme.



How many bytes are used to represent character 'K' ? \_\_\_\_\_

4 Figure 4 shows three devices that can store data.



A

B

C

Figure 4

Based on Figure 4, write A, B and C to match the following :

- (i) Can only hold the data temporarily. \_\_\_\_\_
- (ii) Can store data permanently until it is deleted or removed. \_\_\_\_\_

5 Which feature is available in spreadsheet software ?

- A Drop cap
- B Lookup
- C Create Indexes
- D Query

6 Table 1 shows statements about a utility program.

Usage
<ul style="list-style-type: none"><li>❖ Provides functions to delete, copy, move, rename and view files.</li><li>❖ Formats and copies disks.</li><li>❖ Checks the amount of used or free program space on a storage medium</li></ul>

Table 1

Based on Table 1, write A, B, C or D to show which type of utility is being described :

- A diagnostic
- B back up
- C file management
- D *data recovery*

7 State **one feature** of proprietary software that does not apply to open source software.

8 **Figure 5** shows a wired transmission medium.



Figure 5 - *Rajah 5*

Based on Figure 5, **state the name of the medium.**

9 State whether the following statement is True or False

- (i) A server is needed in a peer to peer network
- (ii) Data transmitted from node to node in ring topology in both direction.

10 Write the words that would complete the following statement:

A \_\_\_\_\_ enables a user to access information from the web sites.

11. Which of the following have a non-linear multimedia presentations ?

- I Movies
- II Computer games
- III Television advertisement
- IV Web page browser

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

12. Figure 6 shows the steps during the crimping of a UTP cable.

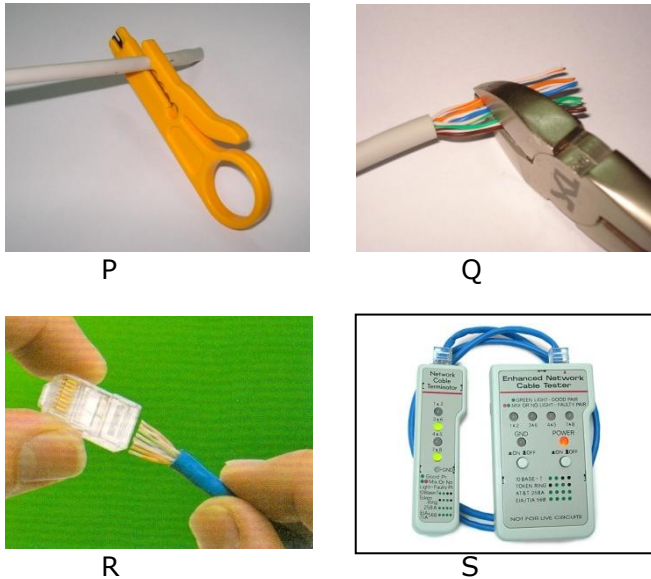


Figure 6

Based on Figure 6, state the steps in :

i) Q : \_\_\_\_\_

ii) S : \_\_\_\_\_

13. Figure 7 shows a web page.

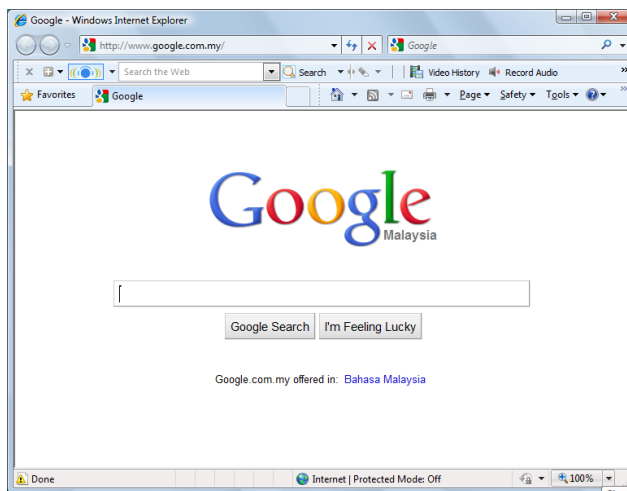


Figure 7

(i) Based on Figure 7, state the type of program used to create the web page.

(ii) \_\_\_\_\_  
HTML is used to structure the web page. State what HTML stands for.

HTML : \_\_\_\_\_

14 Figure 8 shows tasks carried out by members of a multimedia development team.

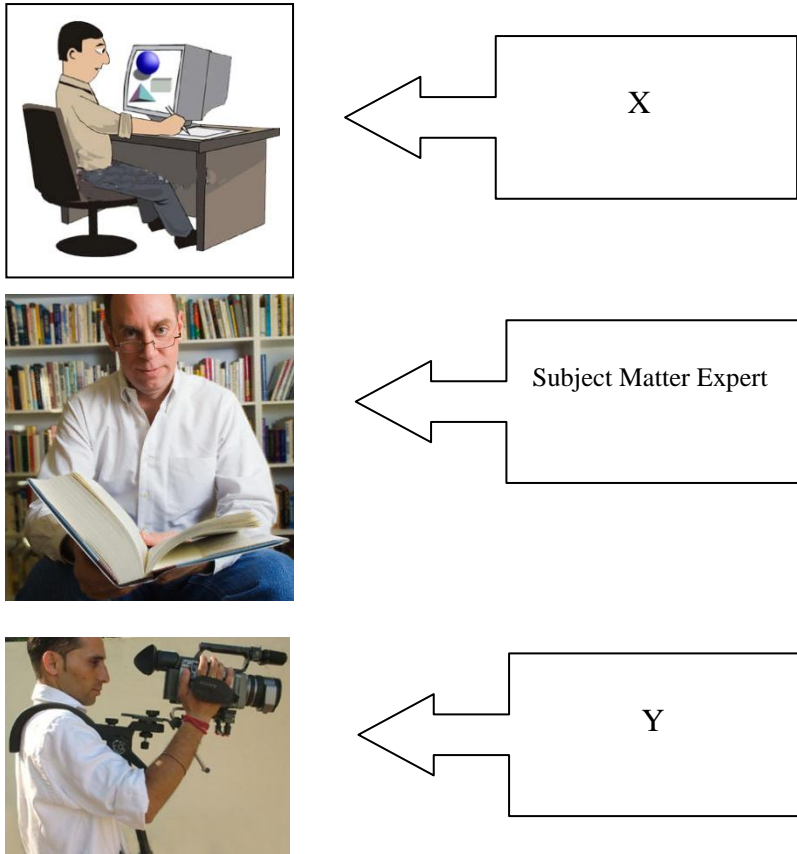


Figure 8

Based on Figure 8, state the name of the team groups in **X** and **Y**:

(i) X : \_\_\_\_\_

(ii) Y : \_\_\_\_\_

15 Write the words that would complete the following statement :

According to the \_\_\_\_\_(i)\_\_\_\_\_ design principle. "Proximity" states that, things that are close together will be seen as \_\_\_\_\_(ii) \_\_\_\_\_.

16 Figure 9 shows the phases in multimedia production.

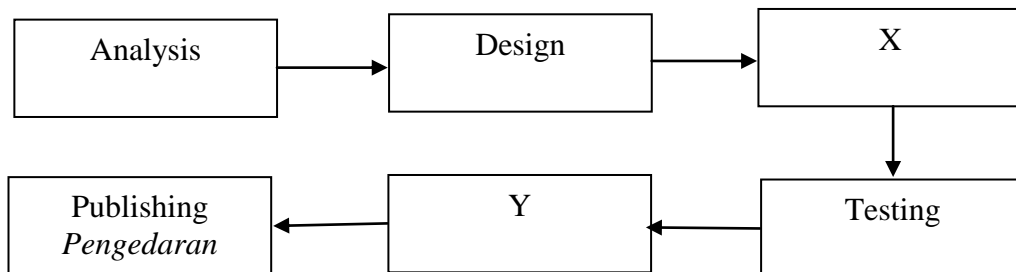


Figure 9 - Rajah 9

Based on Figure 9, identify :

(i) X : \_\_\_\_\_ (ii) Y : \_\_\_\_\_

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

Program written using both high level programming language must be translated into machines language before execution.

18 Choose the correct statement regarding variables and constants.

- I Variables are identifiers
- II Constants are identifiers
- III Variables are assigned values that may change
- IV Constants are assigned values that may change

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

19 Table 3 shows some types of data.

Types of data	Item
R	True or False values
S	Whole numbers

Table 3

Based on table 3, state the types of data for :

(i) R : \_\_\_\_\_ (ii) S : \_\_\_\_\_

20 Figure 10 shows types of operator.

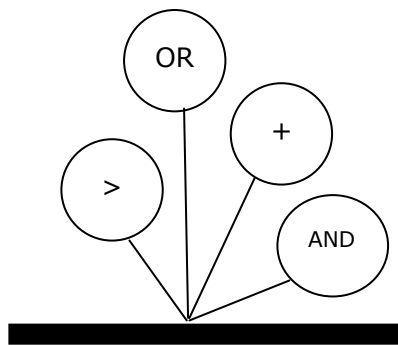
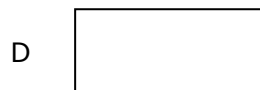
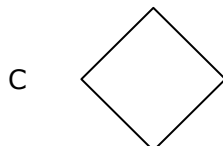
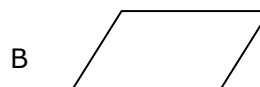


Figure 10

Based on Figure 10, state two logical operators. \_\_\_\_\_

21. Which of the following symbols represents a decision in a selection control structure?



22 Write the words that would complete the following statement.

Buying books from an online shop and selling shoes on an internet auction site are both examples of \_\_\_\_\_

23 Doctor uses an information system to help diagnose illnesses. The system has been programmed with facts and rules about the symptoms of illnesses.

Based on the text

(i) State the name of the information system

\_\_\_\_\_

(ii) State where the facts and rules come from

\_\_\_\_\_

24 State whether the following statement is **True** or **False**

Delete, Filter, Insert, Upgrade and Search are basic operations of data manipulation.

25 The basic operation used to select a few records from a database is

- A index
- B delete
- C filter
- D update

**SECTION B - [20 marks]**

This section consists of five questions. Answer all questions.

26 Table 4 shows two types of software and information that will be used by the software engineer to develop a system within a limited period of time.

Type of software	Information
Open source	Source code is free and available to user
Proprietary	Source code is copyrighted and not available to user

Table 4

Based on Table 4

(i) What type of software should he choose?

[1 mark]

\_\_\_\_\_

(ii) Give three reasons to your answer.

[3 marks]

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

27 Read the following situation:

Sam has two personal computers at home. He wants both computers to share data, files and applications using a crossed cable.

(a) (i) State the name of the type of network architecture used.

\_\_\_\_\_

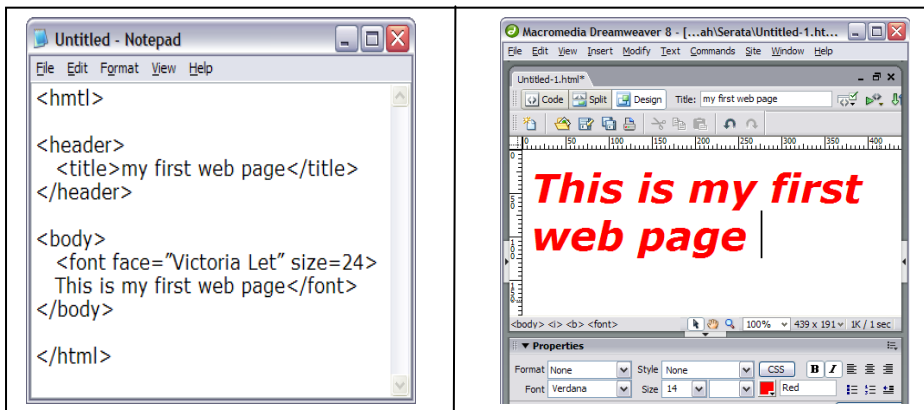
(ii) Give one feature of this type of network. [2 marks]

\_\_\_\_\_

(b) Sketch the network architecture. [2 marks]



28 Figure 11 shows two editing interfaces X and Y for a web-designing workshop. More students registered to use Y and X.



X

Y

Figure 11

Based of Figure 11,

(a) Identify the type of web editor shown [2 marks]

(i) X : \_\_\_\_\_ (ii) Y : \_\_\_\_\_

(b) Give two reasons why interface Y has attracted more students than interface X [2 marks]

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

29 Figure 12(a) shows the input interface and Figure 12(b) shows the output interface of a program

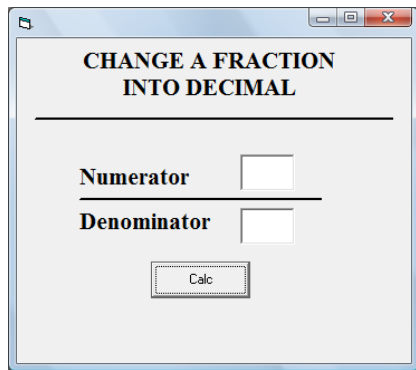


Figure 12 (a)

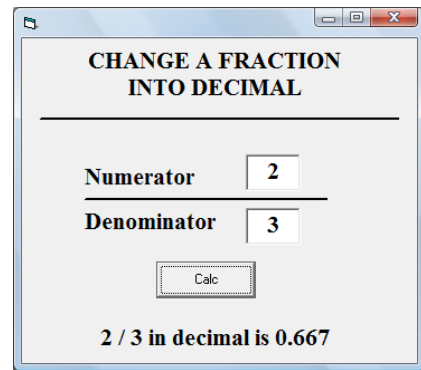
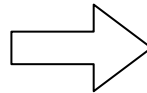


Figure 12 (b)

Based on Figure 12(a) and Figure 12(b)

(a) (i) State the data type that should be used for both interface

\_\_\_\_\_

(ii) Give a reason for your answer. [2 marks]

\_\_\_\_\_

(b) (i) Should the Numerator declared as a constant?

\_\_\_\_\_

(ii) Give a reason for your answer. [2 marks]

\_\_\_\_\_

30 The following are attributes for a library database

Book title	Supplier ID	Book author
Book ID	Supplier address	Supplier name

(a) (i) Group the attributes into two related tables

(ii) Draw a line to show the relationship between the two tables.

[3 marks]

(b) State the type of relationship : \_\_\_\_\_

[1 mark]



**SECTION C - [ 14 marks ]**

This section consists of three questions.  
Answer two questions only

- (i) Question 31 is compulsory, and
- (ii) Choose either Question 32 or Question 33.

31. Figure 13 (a) shows the network configuration of four computers in a Class C network. The computers are named PC 01, PC02, PC03 and PC04.

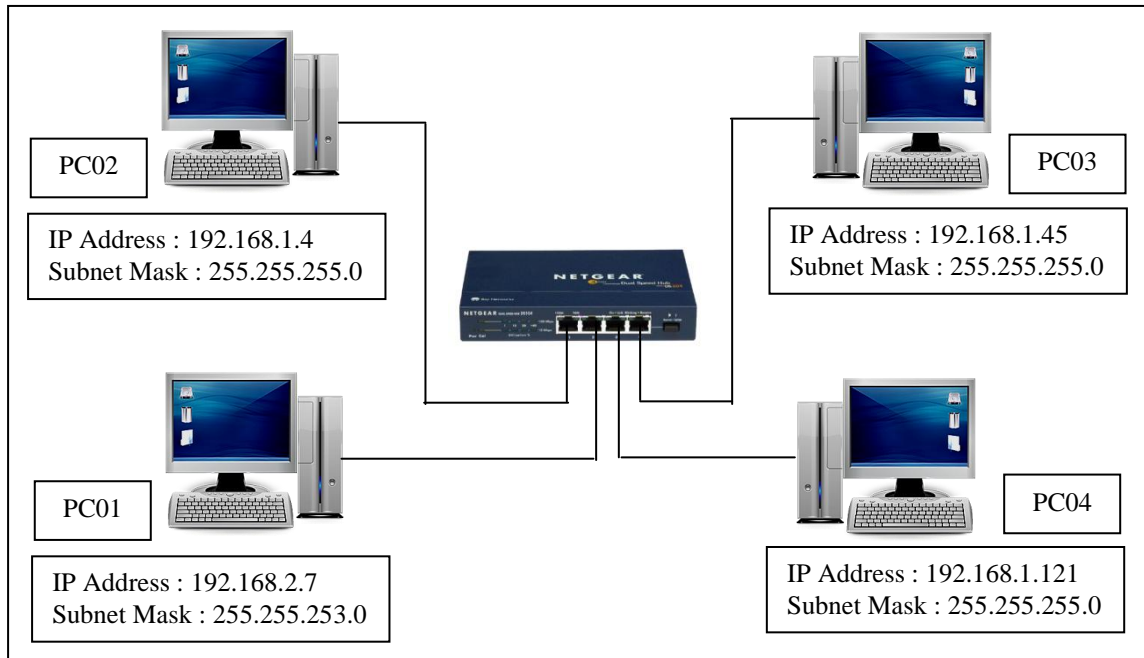


Figure 13(a)

Based on Figure 13(a)

(a) (i) State the name of the computer that is not configured to be in the network.

\_\_\_\_\_

(ii) Justify your answer

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

[3 marks]

Figure 13(b) shows the outcome of two ping processes.

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From PC02

C:\>ping 192.168.1.45

Pinging 192.168.1.45 with 32 bytes of data :

Reply from 192.168.1.45 : bytes = 32   time <1 ms TTL = 128
Reply from 192.168.1.45 : bytes = 32   time <1 ms TTL = 128
Reply from 192.168.1.45 : bytes = 32   time <1 ms TTL = 128
Reply from 192.168.1.45 : bytes = 32   time <1 ms TTL = 128

Ping statistics for 192.168.1.45 :
    Packets : Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds :
        Minimum = 0ms, Maximum = 0ms, Average = 0ms.

C:\>

From PC04

C:\>ping 192.168.1.4

Pinging 192.168.1.4 with 32 bytes of data :

Destination host unreachable.
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.

Ping statistics for 192.168.1.4 :
    Packets : Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
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Figure 13 (b)

Based on figure 13(a) and Figure 13(b),

(b) PC04 is switched on and running correctly.

Explain **two** caused of the outcome of the ping process from PC04.

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[4 marks]

32 Figure 14 shows goods on sale in a shop



Figure 14  
Rajah 14

Based on Figure 14, you are asked to develop a program to calculate the final price of each item.

(a) (i) Identify two variables.

(a) \_\_\_\_\_

(b) \_\_\_\_\_

(ii) Justify your answer. [3 marks]

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(b) Write the pseudo code for the program

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[4 marks]

33 The following are dialogue between a computer sales manager and a programmer.

Manager:	Good morning, may I see the Cyber Maju Sdn. Bhd. monthly sales for the previous months? Can you please print it out for me?
Programmer:	What details would you like to see in the report, sir?
Manager:	Please show me the sales for each model, units sold and also the total sales of those months
Programmer:	All right sir. I'll get it done as soon as possible.
Manager:	Thank you.

Based on the dialogue, prepare the report design to be generated by the Database Management System.

[7 marks]

**END OF QUESTION PAPER**