

195

විස්තෘත පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව - කොළඹ අධ්‍යාපන කලාපය  
 Western Provincial Education Department - Colombo Educational Zone

**විස්තෘත පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව - කොළඹ අධ්‍යාපන කලාපය**  
**මිගල් මාකානස් කல்විත් තිணைக்கොටු - කොළඹ දිස්ත්‍රික්කය**  
**Western Provincial Education Department - Colombo Educational Zone**

**දෙවන වාර ඇගයීම - 2016**  
**இரண்டாம் தவணைமதிப்பீடு - 2016**  
**Second Term Evaluation - 2016**

**10 ශ්‍රේණි**  
**தரம் 10**  
**Grade 10**

**තොරතුරු හා සන්නිවේදන තාක්ෂණය I පත්‍රය**  
**தகவல் தொடர்புடலும் தொழினுட்பவியலும் வினாத்தாள்-I**  
**Information & Communication Technology Paper I**

**පාලන වේලාව**  
**ஒரு நேரம்**  
**One Hour**

- Note :-
- Answer all the questions.
  - It each of the questions 1 to 40, pick one of the alternatives i, ii, iii, and iv which you consider as correct or most appropriate.
  - Mark a cross (X) on the number corresponding to your choice in the answer sheet provided.
  - Further instructions are given on the back of the answer sheet. Follow them carefully.

- Which of the following is a typical use of backup memory in a personal computer?
  - To store the data need for process and output
  - To store instruction need for process
  - To store programme for boot-up process
  - To provide storages for the operation of a system need to be used in future.
- Select the statement which can be considered as "information"?
 

1. Price of a good.	2. Amount of tuition fee
3. Highest rainfall in Sri Lanka	4. Today's Temperature
- The ICT tool that is used to read cheque detail in bank.
 

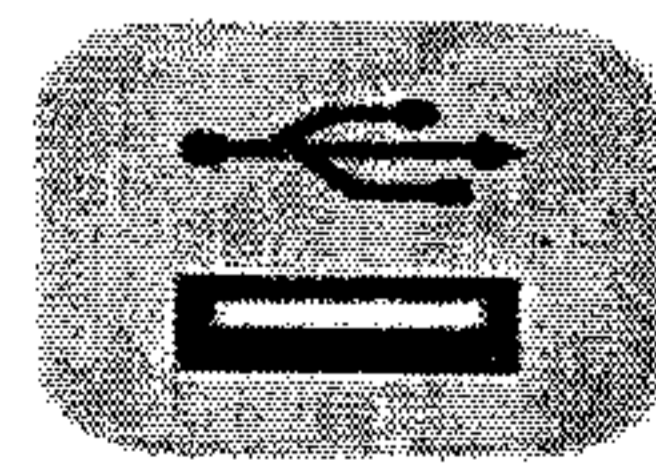
1. OMR	2. MICR	3. UPS	4. NIC
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- Which of the followings are features of fiber optic data transmission?
 

a. Velocity of light.	b. Voltage	c. Full internal reflection.	
1. a and b only.	2. b and c only	3. a and c only	4. c and d only..
- The foundation for creating mechanical computers started with the invention of .....
 

1. ABC (Atanasoft Berry Computer)	2. Analytical engine
3. Pascal's adding machine	4. ENIAC
- Which of the following is / are the incorrect statement(s)?
 

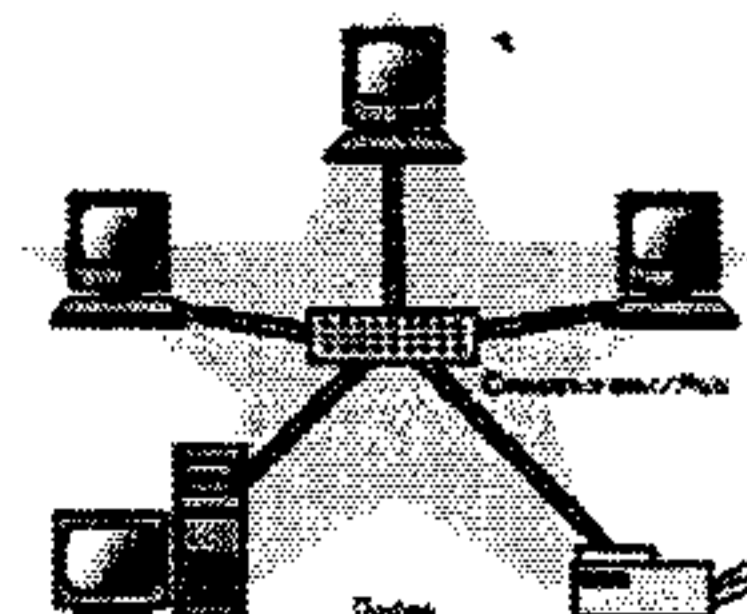
A. Relevance of information varies from individual to individual	
B. Timely data has its highest value.	
C. The value of information drops down with its less significance.	
1. A and B only	2. B and C only
3. C and A only	4. All A, B and C
- The port showing in this picture is .....
 

1. VGA	2. PS/2
3. USB	4. Network


- The ICT tool that use to connect two different computer networks together?
 

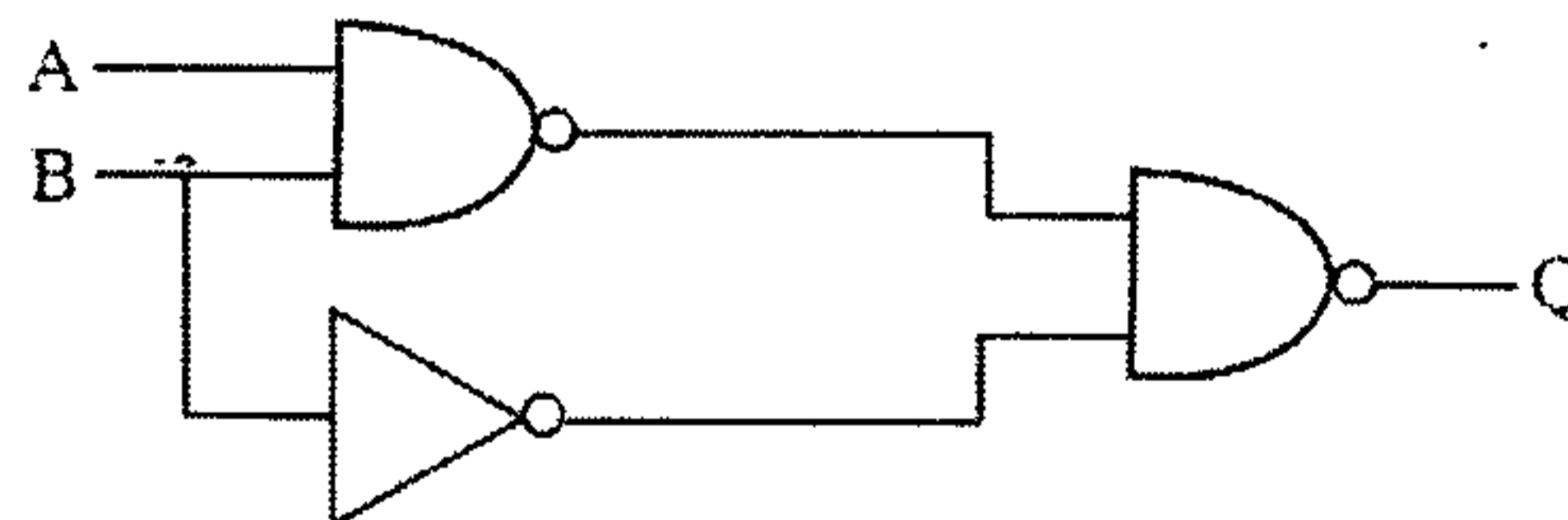
1. NIC	2. Hub	3. Router	4. Switch
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- 9) A student decides to make on an electronic device for a water heater that is automatically disconnected when water level goes down while the electricity is on. Which of the followings logic circuit he may use. consider that water level down = 1, electricity on = 1
1. OR
  2. NOT
  3. AND
  4. NAND
- 10) Which of the following pairs of BCD numbers represents an Odd value in both numbers
1. 0101, 0011
  2. 0010, 1000
  3. 0110, 0001
  4. 0111, 0110
- 11) What were the special features found in 2<sup>nd</sup> generation computers?
1. Smaller in size and higher electrical consumption than the previous machine.
  2. Lower electrical consumption than the previous machine and using Microchips.
  3. Need a larger space than modern machine and use vacuum tubes.
  4. Smaller in size and lower electrical consumption than the previous machine.
- 12) Find the correct statement relevant to the basic function of a computer operating system,
1. Controlling the devices and functions
  2. Getting information by processing data.
  3. Test the accuracy of the Grammar
  4. Producing user's requirement based on a task
- 13) The numbers, words, images and symbols which do not bear a meaning, when they are standing alone describe...
1. Information
  2. Data
  3. Process data
  4. Non of these
- 14) Submitting data, the result produced and arranging data in a meaningful way are defined by the following statements respectively. Which of the following set of terms correctly describe the above?
1. output, process, input
  2. Process, output, input
  3. Input, process, output
  4. input, output, process
- 15) The software use to coordinate user and the hardware of a computer system is called .....software.
1. Application
  2. program translator
  3. Utility
  4. operating system
- 16) After scanning \_\_\_\_\_ by a smart phone and connecting to the internet, further information can be obtained from the website of the relevant item.
1. Bar code
  2. Item code
  3. Qr code
  4. Ascii code
- 17) Consider the number '980<sub>x</sub>' where 'x' is the base of the number system. Which of the following number system (s) can the number '980<sub>x</sub>' belong to ?
1. Octal, Decimal or Hexadecimal
  2. Hexadecimal or Decimal only
  3. Octal or Decimal only
  4. Binary, Hexadecimal or Octal
- 18) Computers use binary code to store data because.....
1. Binary code is more reliable
  2. Binary code is much faster
  2. Binary code takes up less space
  4. Electronic circuits can only be 'on' or 'off'
- 19) Which is not used for general data storage?
1. CPU
  2. Hard disc
  3. Magnetic tape
  4. Optical disc
- 20) Select the network topology shown in the diagram
1. Ring
  2. Star
  3. Tree
  4. Mesh



- 21) You have typed a letter and save it in a ..... . You save the ..... by giving a name and computer itself provide an ..... relevant to its file type
1. file / folder / extension
  2. Folder / file / extension
  3. extension / file / folder
  4. File / extension / folder
- 22) What is the decimal equivalent of the binary  $1100001_2$  ?
1. 100
  2. 97
  3. 99
  4. 101
- 23) Which of the following shows the smallest of BCD (Binary Coded Decimal shown below?)
1. 10000000
  2. 10000001
  3. 01110111
  4. 01101001
- 24) Which of the following conversion is not match with  $FF_{16}$  number?
1.  $255_{10}$
  2.  $1111111_2$
  3.  $377_8$
  4.  $1000000_2$
- 25) The characters "IT" represent ASCII values are displayed, which of the following Binary represent the values respectively. Binary 1000001 is represented as "A" in ASCII.
1. 1001001 1010100
  2. 1000011 1010100
  3. 1010100 1001001
  4. 1001001 1010101
- 26) A question paper consists of five parts a, b, c, d, e. Candidates are required to answer three parts of questions. Part a is compulsory and the candidate has to select one from part b or c and d or e Which of the following represents the selection of parts of questions by a candidate?
1. a OR (b AND c) OR (d or e)
  2. a AND (b or c) or(d AND e)
  3. a AND (b AND c)(d OR e)
  4. a AND (b or c) AND (d or e)
- 27) Mr. Perera runs a small business and daily he feeds sale items, quantities and prices into the computer system . He also calculates the amount of the sales and reduces of the stock from the previous balance every day. He prepares the total sales report and the balance of the stocks daily. Identify the inputs, processes and outputs respectively. As described in the above scenario.
- A. sale items, quantities and prices.
  - B. total sales report and the balance of the stocks.
  - C. Calculate the amount of the sales and reduce of the stock from the previous balance.
- The correct order of the inputs, process and output
1. A, B, C
  2. B, C, A
  3. A, C, B
  4. C, A, B
- 28) Find the most significant digit and the least significant digit of the number 023.08080
1. 2 - 3
  2. 2 - 0
  3. 2 - 8
  4. 0 - 0
- 29) What is the result after evaluation of the following expression, considering the operator precedence of programming languages ?  $5*(3+1)*5-1^2$
1. 19
  2. 35
  3. 79
  4. 99
- 30) Fine correct Boolean expressions for the circuits given below

1.  $\overline{A.B.B}$
2.  $A.B.A.B.B$
3.  $\overline{A.B.A.B.B}$
4.  $\overline{A.B.A.B.B}$



31) Which one of the following is **incorrect** regarding Local Area Networks (LANs) ?

- 1. Geographically distributed in a small area.
- 2. Generally owned by a single person or an organization.
- 3. Consist of many shared data communication media with various interfaces.
- 4. Generally consist of topologies; Bus, Star and Ring.

32) A father presents an electronic talking parrot to his son on his birthday. It can be controlled remotely by two push button switches. When both buttons are pressed together only the parrot talk, otherwise it does not talk at all. The digital logic that corresponds to the operation of the talking parrot is

- 1. OR
- 2. AND
- 3. NOR
- 4. XOR

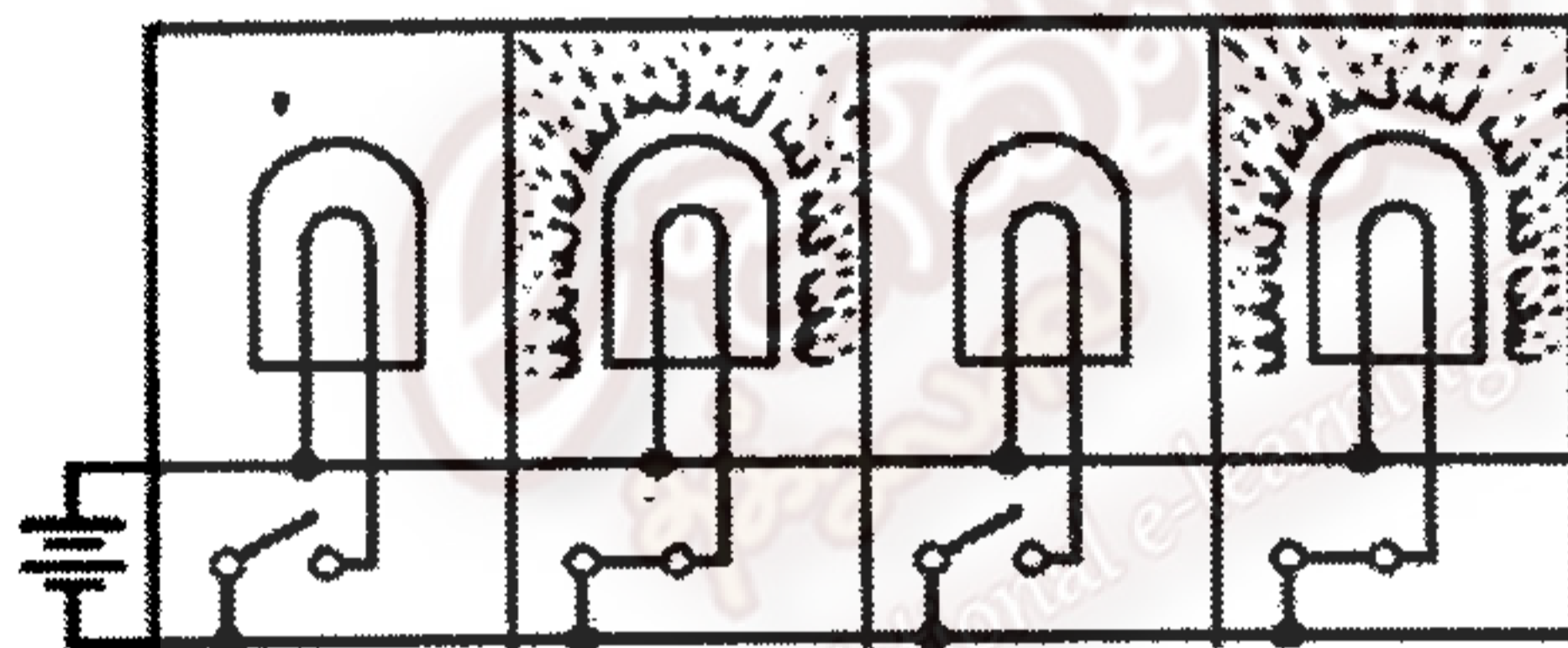
33) Consider the following images A, B and C showing different types of network cables :



Which of the following correctly represents A, B and C ?

- (1) A = coaxial, B = fibre optic, C = twisted pair
- (2) A = fibre optic, B = coaxial, C = twisted pair
- (3) A = coaxial, B = twisted pair, C = fibre optic
- (4) A = fibre optic, B = twisted pair, C = coaxial

34) The following is a set of electronic circuits operated by switches, identify the correspondent binary representation .

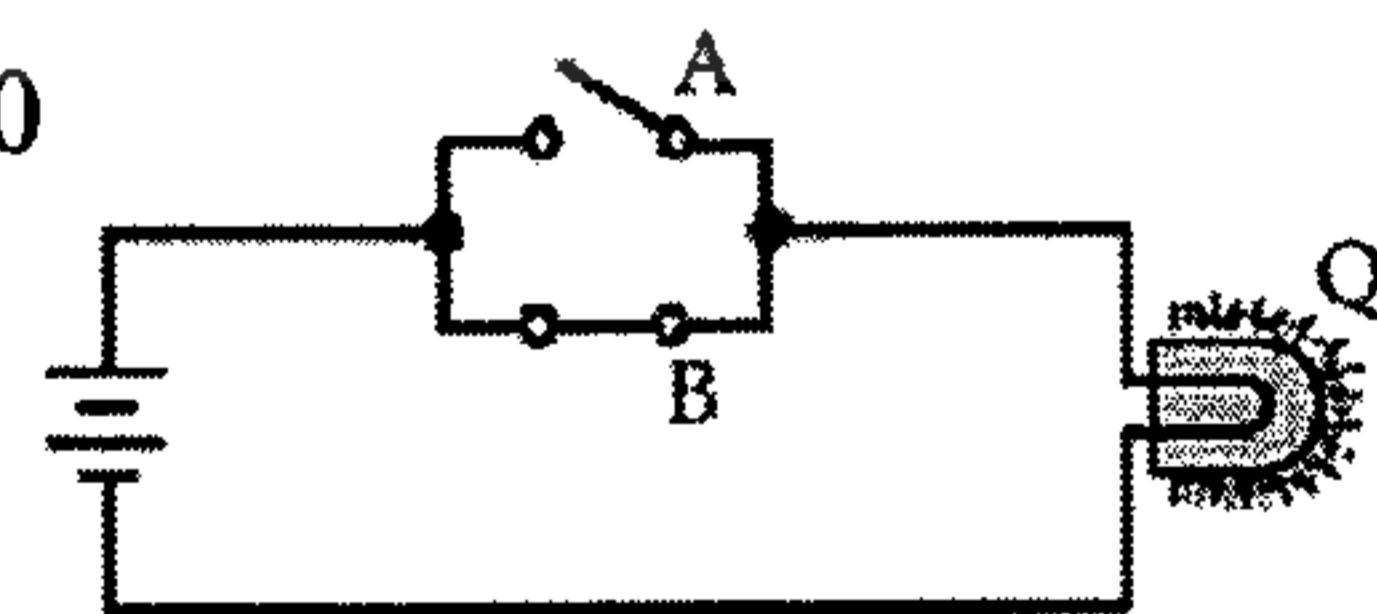


- 1. 0101
- 2. 1010
- 3. **A** 1100
- 4. 1001

35) Select the correct input formation of this circuit imagine the output Q is 0

- 1. 0 - 1
- 0 - 0

- 2. 1 - 1
- 4. 1 - 0

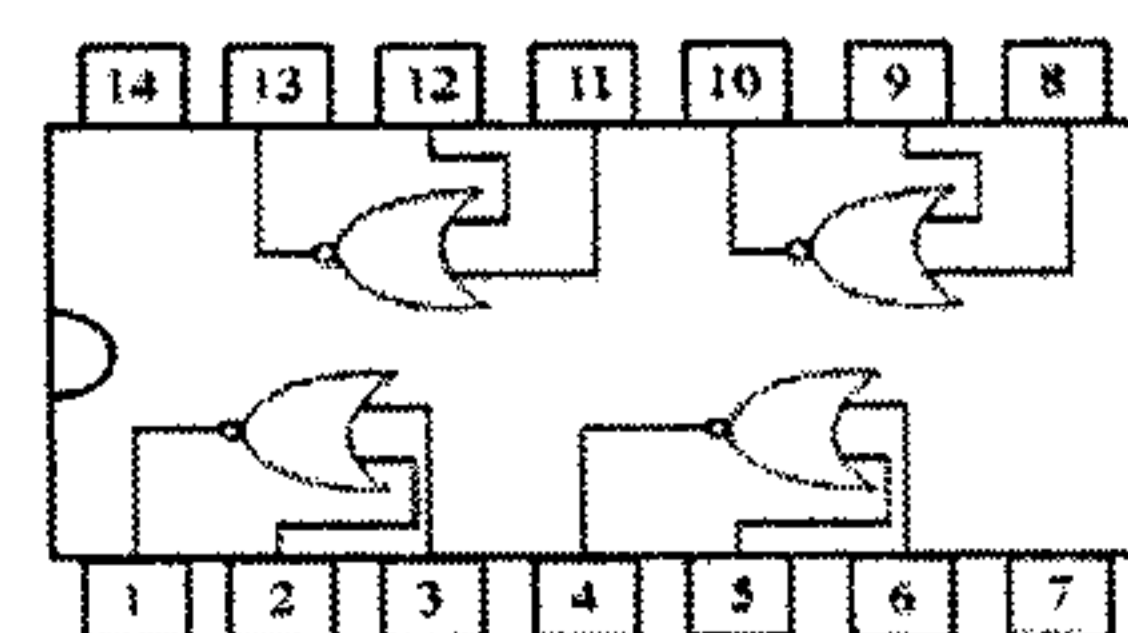


36) Which of the following logic gate is the correct representation of the Boolean statement  $(A+B).(A.\bar{C})$

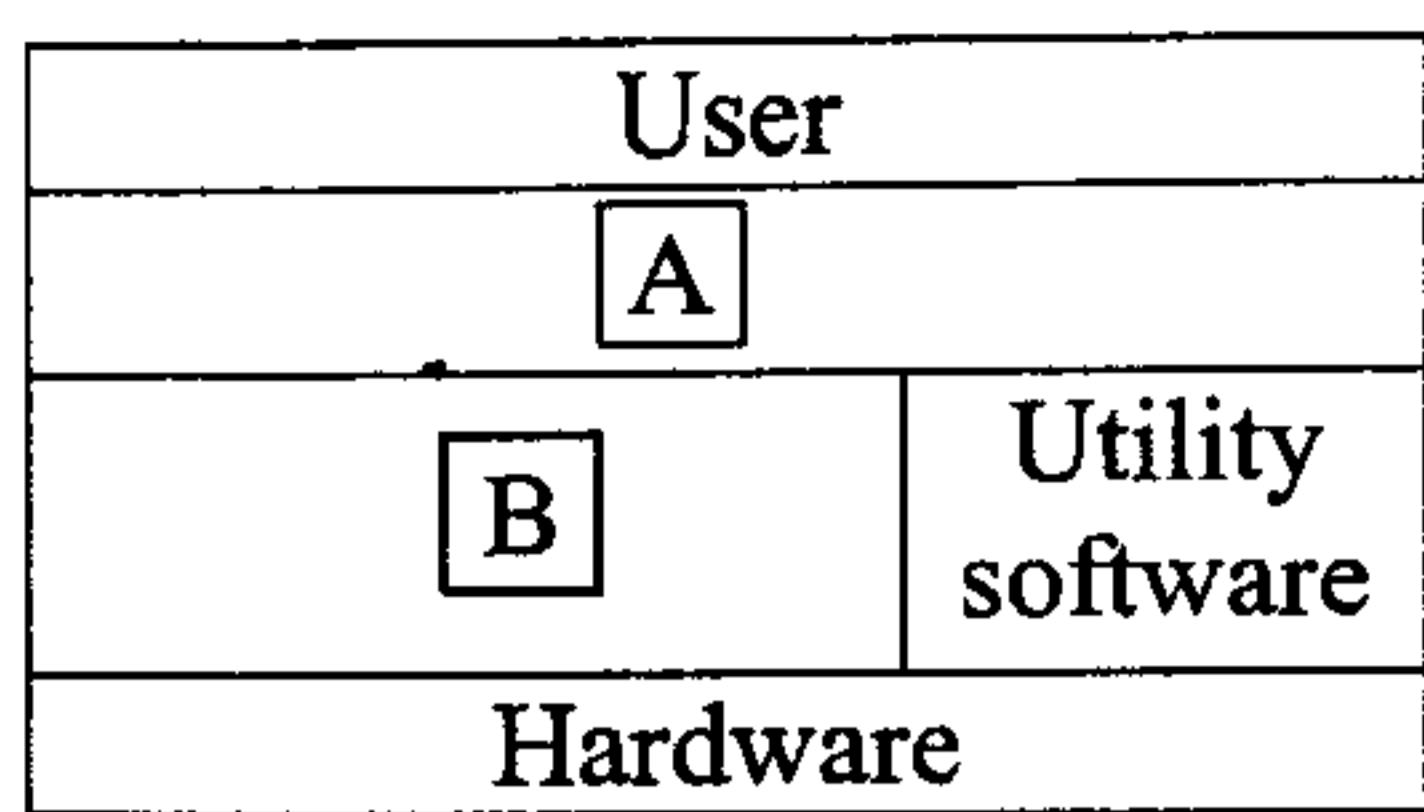
- 1.
- 2.
- 3.
- 4.

37) Consider the pins 1, 2 and 3 in the below circuit. If the value of pin 1 = 1 what would have been the pin 2 and 3 respectively?

- 1. 1 - 0
- 3. 0 - 1
- 2. 1 - 1
- 4. 0 - 0



The following picture shows the relationship of the user with the computer system. The letter A and B Refers to



1. Operating System, Application software
2. Utilities, Packages
3. Packages, Utilities
4. Application Software, Operating System

39) Which of following is/are function/functions of an operating system.

- |                       |                           |
|-----------------------|---------------------------|
| A) process Management | B) Memory Management      |
| C) Device Management  | D) Calculation management |

1. A only.
2. A and B only.
3. A, B and C only.
4. All A, B, C and D

40) Select the incorrect statement about the page numbering in MS word document?

- A. We can use different formats to insert page numbers
- B. We can insert page number by using page number drop down menu from the Insert menu.
- C. We can only insert it in the bottom of the pages .
- D. after inserted page numbers ones it can't be removed

1. C only
2. A and B only
3. A , B and C
4. C and D only

*සමස්ත ඉගෙනුම*  
The National e-learning Portal for The General Education

බස්නාහිර පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව - කොළඹ අධ්‍යාපන කලාපය Western Provincial Education Department - Colombo Educational Zone	<b>බස්නාහිර පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව - කොළඹ අධ්‍යාපන කලාපය</b> <b>මேல் மாகாணக் கல்வித் திணைக்களம் - கொழும்புகல்விவலயம்</b> <b>Western Provincial Education Department - Colombo Educational Zone</b>	කොළඹ අධ්‍යාපන දෙපාර්තමේන්තුව - කොළඹ අධ්‍යාපන කලාපය Colombo Ed Western Western
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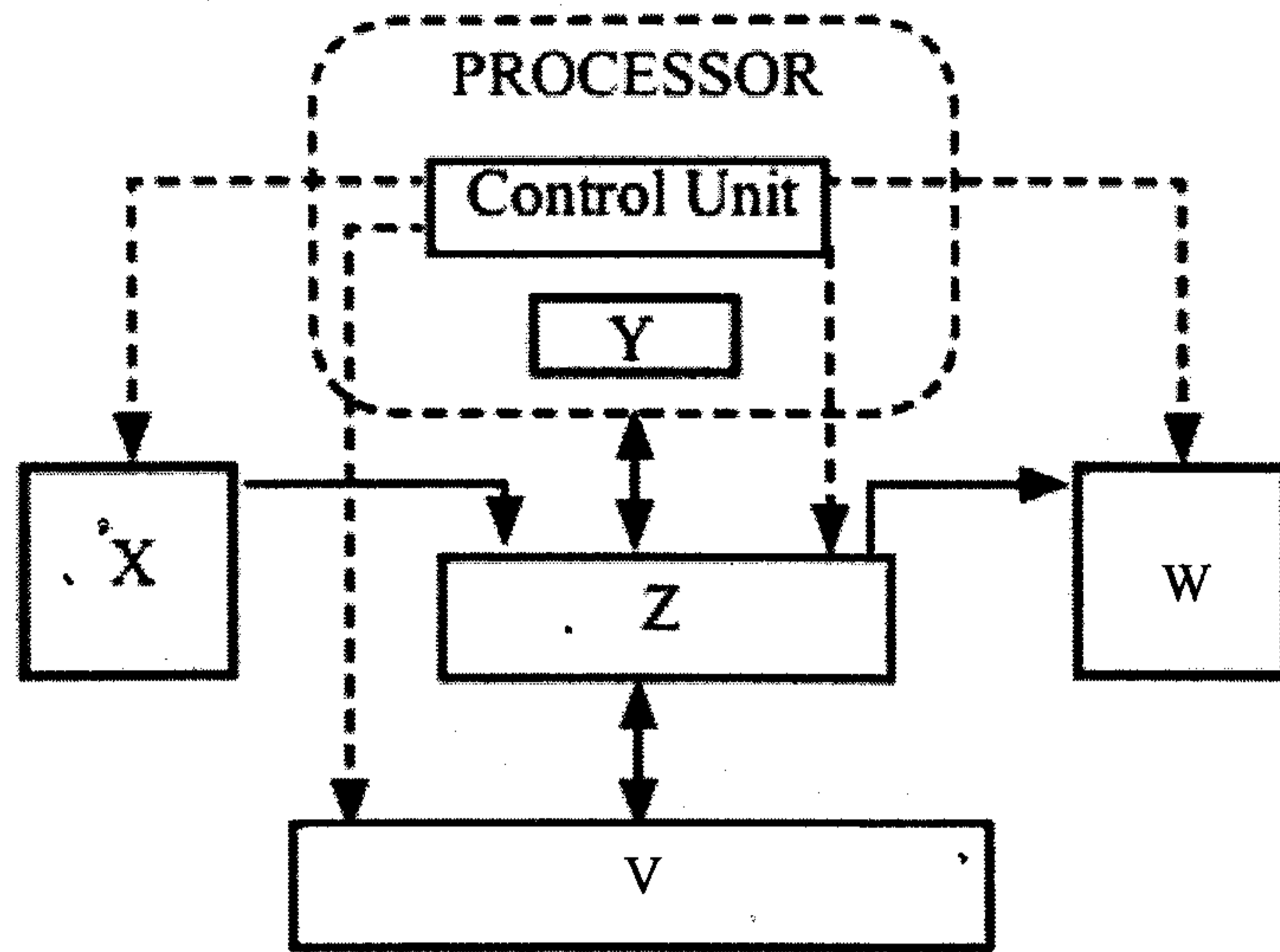
**දෙවන වාර ඇගයීම - 2016**  
**இரண்டாம் தவணைமதிப்பீடு - 2016**  
**Second Term Evaluation - 2016**

<b>10 ශ්‍රේණිය</b> தரம் 10 Grade 10	<b>තොරතුරු හා සන්නිවේදන තාක්ෂණය II පත්‍රය</b> தகவல் தொடர்புடலும் தொழினுட்பவியலும்வினாத்தாள்-II <b>Information &amp; Communication Technology Paper II</b>	<b>පැය දෙකයි</b> இரண்டு மணித்தியாலங்கள் <b>Two Hours</b>
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- Note :-
- i. Answer all the questions.
  - ii. In each of the questions 1 to 7, pick 5 questions including 1st question write the most appropriate short answers for question one and as possible.
  - iii. Questions given for calculation or simplification have showed the method of simplifying.
  - iv. Further instructions are given on the back of the answer sheet. Follow them carefully.

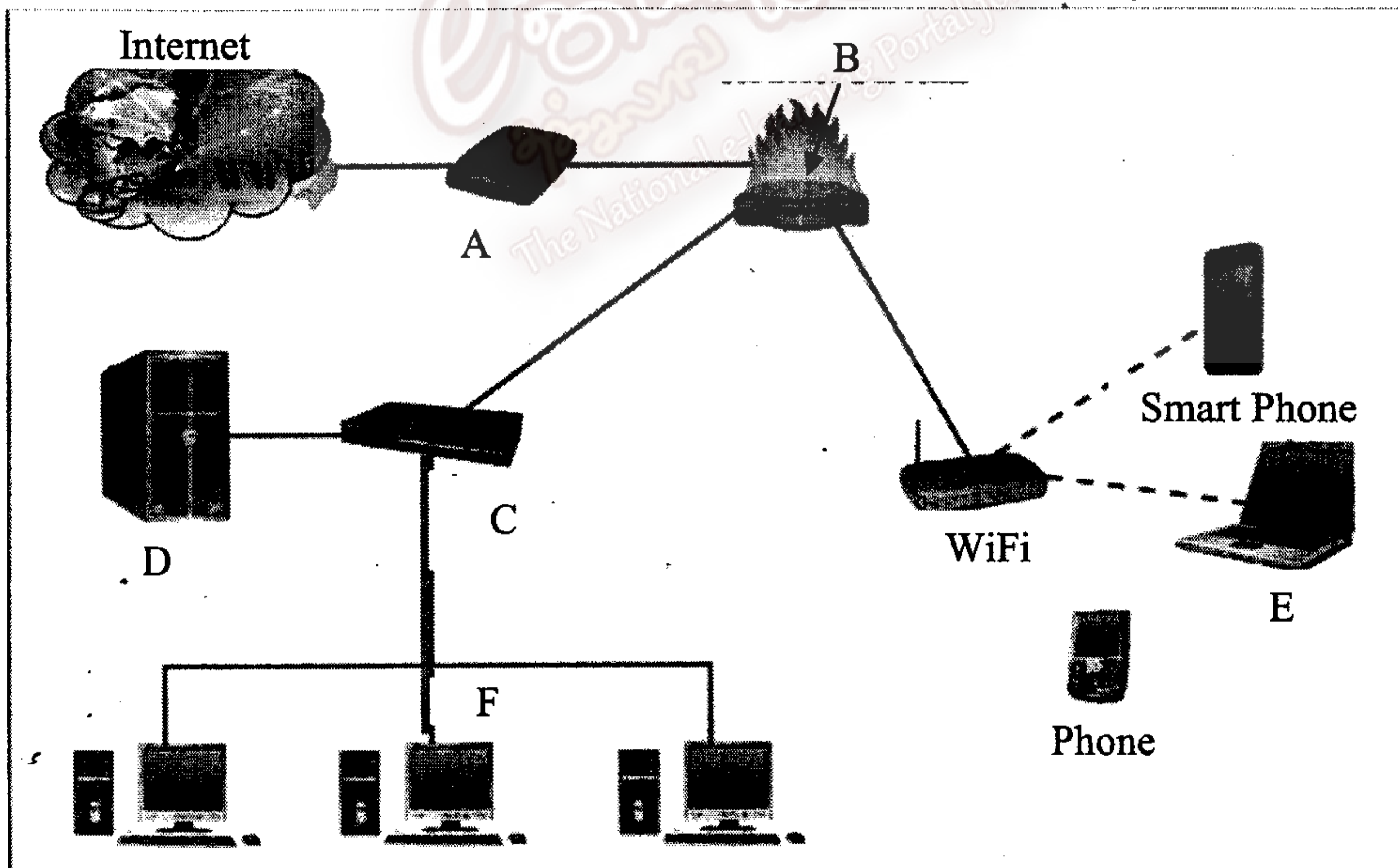
1. We learned that we can get information by processing (1)..... and that information can be used to make (2)..... and arrive at conclusions. When we exchange the (3)..... among different people or among different systems, it is called (4)..... of information.
2. The process of dividing an individual drive into multiple logical drives is called a disk partitioning. List two relevant reasons for disk partitioning.
3. Make a list of 2 e-government services that are provided by the country.
4. Electronic signal of letter "E" represent  $01000101_2$ , what is ASCII binary Code represents letter "B"
5. What is the binary number that is be indicated in a binary base counting frame as given below.
6. Find the most significant bit and the least significant bit of the number  $0.11001_2$ .
7. Consider the pins 1, 2 and 3 in the above circuit. If  $2 = 0$  and  $3 = 0$ , what is the value of pin 1?
8. Software is a set of instructions given to the computer to perform some activity using a computer. Name two main types of software categories.
9. Name two main functions of an operating system..
10. The ICT teacher explains about some hardware devices of a computer. He says ..... is a device used to read the lines printed on an item that is converted to an alphanumeric value. He also explains that ..... is an input device which recognize marks made using a pencil or a pen which is commonly used to correct MCQ exam papers.  
 Fill in the blanks with relevant terms.

2. (a) The given figure shows a Computer Block Diagram.



- (i) Name the Five components which are labeled as V, W, Y and Z in the Figure.
- (ii) Name two different devices belong to category labeled as W
- (iii) Briefly explain the functions of Y, Z and V shown in the diagram.

(b) The given figure shows a Network connected with the Internet

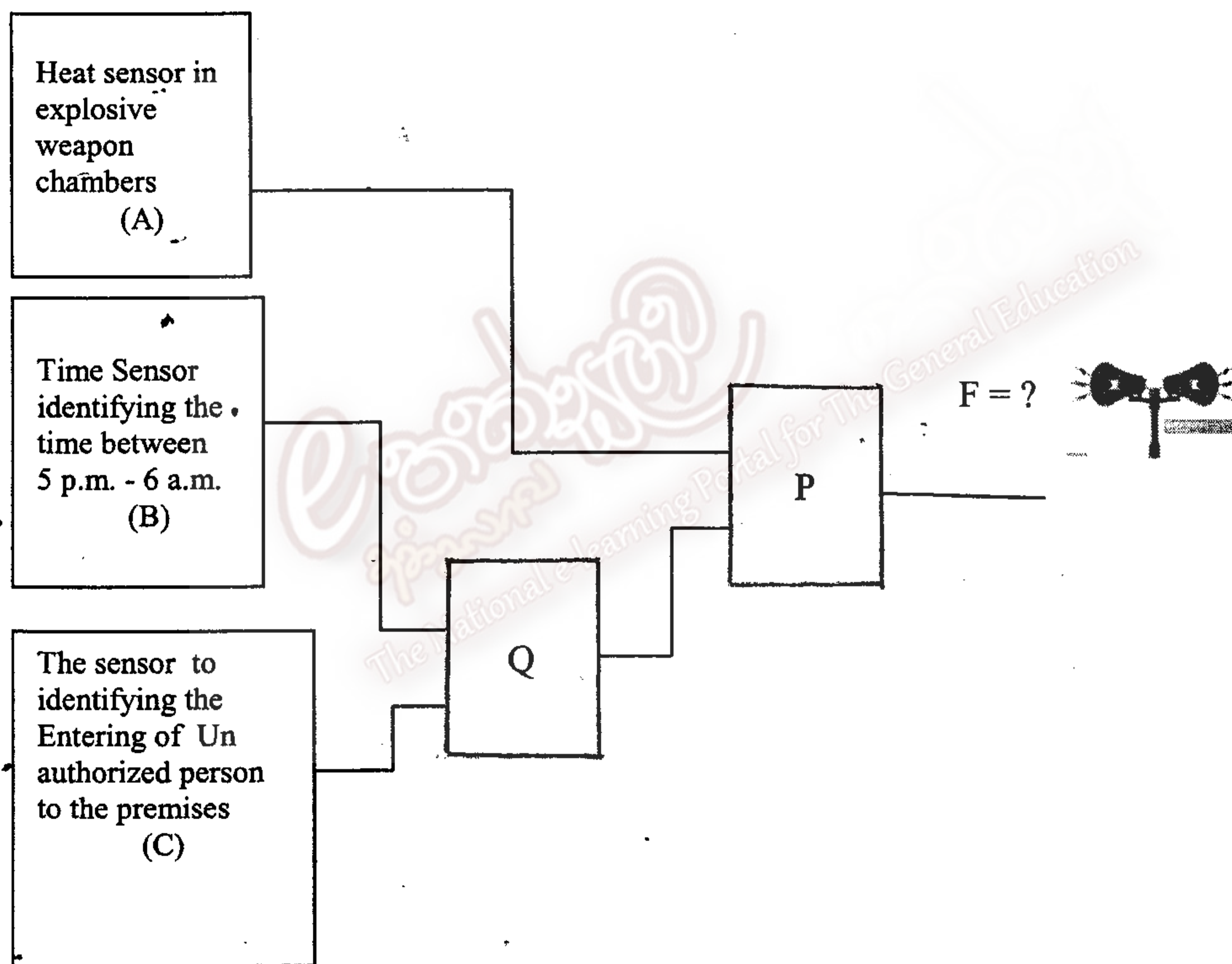


- (i) Name the Six components which are labeled as A, B, C, D, E and F in the Figure.
- (ii) Briefly explain the purpose of A and B
- (iii) What is the data communication medium used in Wi-Fi

3. Following is a logic circuit which construct for certain security purpose

A	B	C	A and B	B or C	A and B or (B or C)
0	0	0	0	0	0
0	0	1	0	1	1
0	1	0	P	Q	R
0	1	1	0	1	1
1	0	0	0	0	0
1	0	1	0	S	T
1	1	0	U	1	V
1	1	1	W	1	1


- Fill with suitable values the blanks labeled P – W to complete the above truth table according to the expression .
- Rewrite the expression using relevant Boolean symbols.
- Draw the logic circuit corresponding to the above Logic expression.
- Following is a logic circuit designed for an explosive weapon store premises. To alarm signal giving there should be either heat generated in weapon store chambers OR arrival of unauthorized person in time between 5 p.m. to 6 a.m.



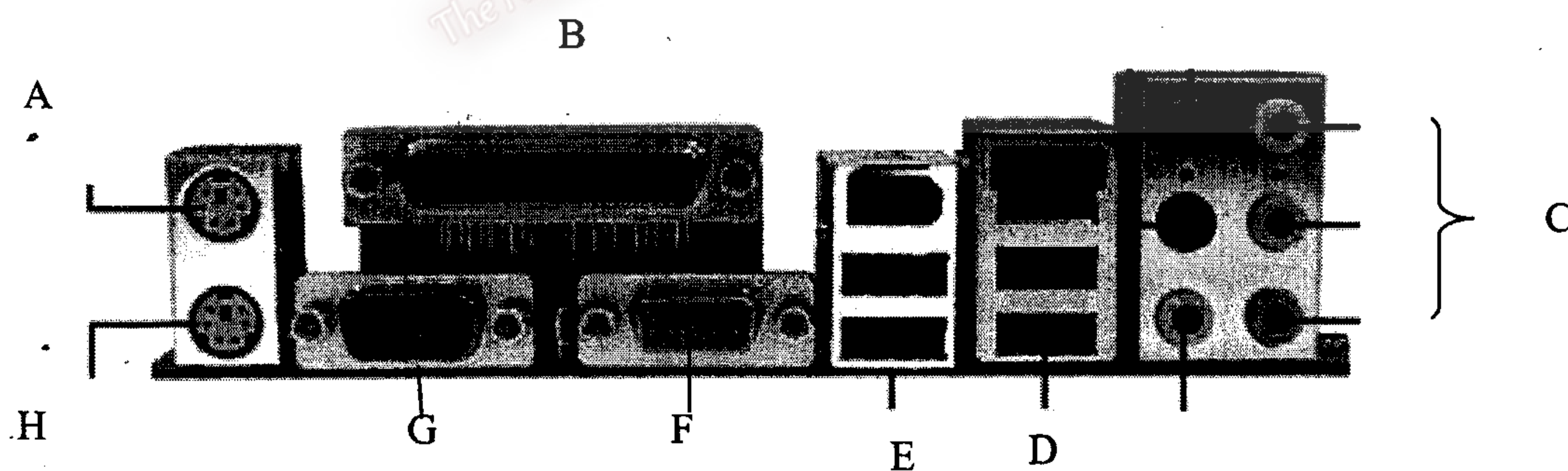
- Draw suitable logic gates to A and B
- Write the corresponding Boolean expression for "F" using A, B, C.



4. Following figure shows Computer specification indicated from software installed in computer. Answer the questions using it.

System	
Manufacturer:	Hewlett-Packard
Model:	HP ProBook 4520s
Rating:	 Windows Experience Index
Processor:	Intel(R) Core(TM) i3 CPU M 380 @ 2.53GHz 2.53 GHz
Installed memory (RAM):	2.00 GB (1.86 GB usable)
System type:	32-bit Operating System
Pen and Touch:	No Pen or Touch Input is available for this Display

- What is the clock speed of the CPU?
  - What is the capacity of main memory mentioned in this computer?
  - Write the category of the computer described in the specification?
  - This computer cannot support for touch screen. By which statement of the specification can we prove it? Write the relevant full statement for your answer.
  - Write two benefits of a LED screen for your computer than CRT.
5. following figure shows the ports in back panel of the computer



- Name the ports labelled from A to H
- Name a device can be connected to the ports A,B,F,G
- Name three specific characteristic of the port labelled D
- Name two different devices can be connected with two ports shown in figure group labelled as C
- You can't see the port labelled as B in modern computers. Why is it?

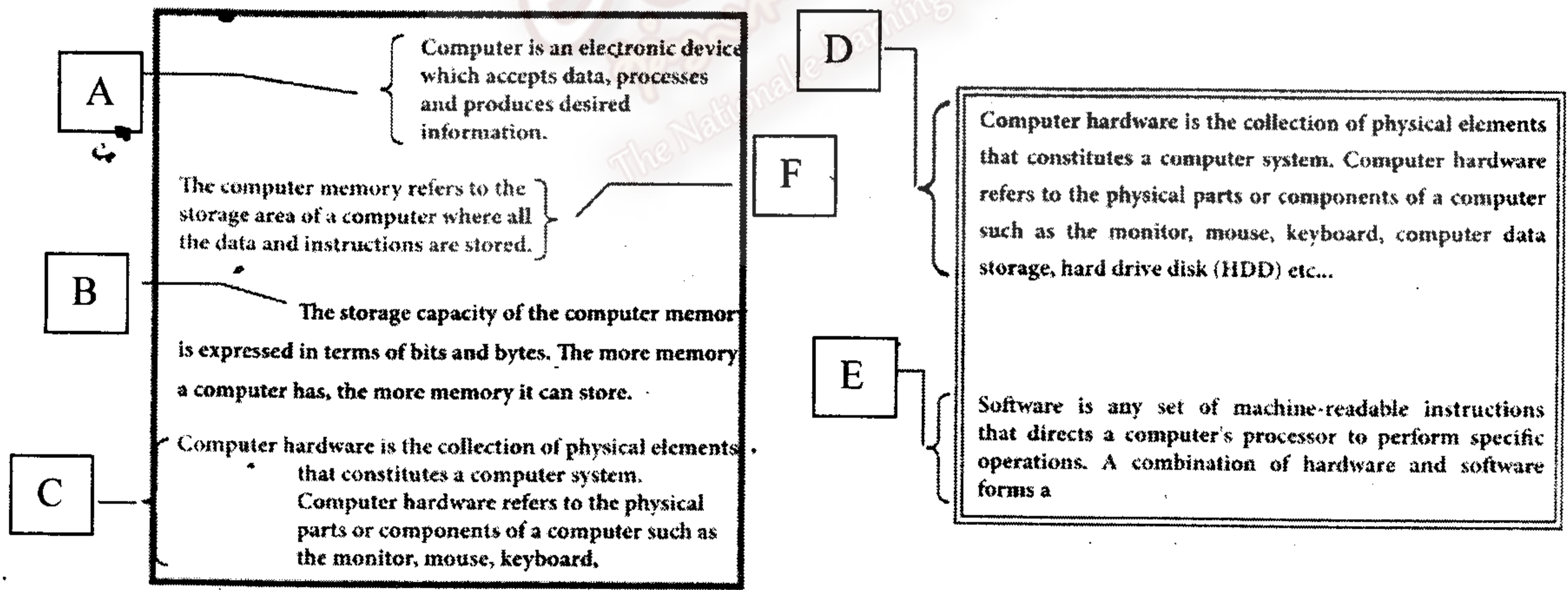
6.

1) The following table describes the utility programs with their functions. Each item in Table A can be matched with an item in Table B. Write down the labels of the matching pairs in your answer sheet.

Table A	Table B
A-Disk Defragmentation	P- Protecting the computer by identifying and eliminating (Remove)malware.
B-System diagnosis tools	Q- Filling the screen with moving an image or a pattern when computer is not in use.
C- Anti virus software	R- Organizing hard disk by rearranging clusters of small spaces together to get a larger free space.(to increase the efficiency of HD)
D- Screen servers	S- Monitor errors in hardware and software of computers (even network)

1. Draw two diagrams to show hard disk partitioned in to two and un-partitioned hard disk.
2. Write two advantages of GUI when comparing with CLI.
3. Write two operating systems with GUI.
4. Write main components of GUI.
5. Your teacher has prepared a file. It can be read but can't save with the changes you made. Write the steps to do the changes which the teacher has done on the file he prepared.

7. Following picture shows some paragraph formatting.



- 1) Identify the formats labeled A - F and select the suitable type of formatting from the formatting list given below. Write the label and its relevant format in your answer [Left indentation, Right Indentation, First line Indentation, Hanging indentation, Line spacing, paragraph spacing]
- 2) Write three advantages you get by using word processing than type writer.
- 3) Identify the following text formatting which are bold and under lined.

Get CO<sub>2</sub> and release O<sub>2</sub> from the leaves at Photosynthesis Process of trees.