

INFORMATION COMMUNICATION TECHNOLOGY

G.C.E. Ordinary Level 2013

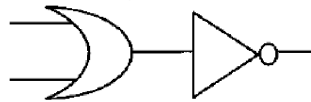
Year End Examination

Duration: 120 minutes

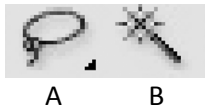
Answer five questions including the first question.

1. Give short and exact answers.

- i. Convert the Octal number 407_8 into a binary number.
- ii. Write two advantages of Short Message Systems.
- iii. What do you understand by Digital Divide? Write using One sentence.
- iv. Draw a single gate to represent following logic gates on behalf of the combination.



- v. Name the following law in Boolean's Algebra. $w.(x+y) = w.x + w.y$
- vi. Name the following tools A and B used in Photoshop.



- vii. What is the type of communication software used to access resources in the internet?
- viii. Tick on the relevant cell by identifying the software type.

	Application Software	Operating System	Utility Software
Windows Media Player			
Netscape			
Firewall software			
Corel Draw			
Lotus 123			
Ubuntu			

- ix. Write the most suitable data type for "DateOfBirth" field in a Database.
- x. Find the output of **Print ($5*2 < 5-2^2/2$) AND ($5+2 > 9 \text{ MOD } 5$)**

2. "Millanium IT" is going to develop a new system to a School to automate all the academic and administrative functions. If the Software engineers at Millenium IT has decided to develop the system using Waterfall model of System Development.

- i. What do they do as the first step according to the SDLC? Briefly explain.
- ii. What are the types of implementation can they use after developing the system?
- iii. What is **Feasibility study** and what are sub categories of feasibility study?
- iv. Name 3 components of each Computer Based information systems and Manual systems.

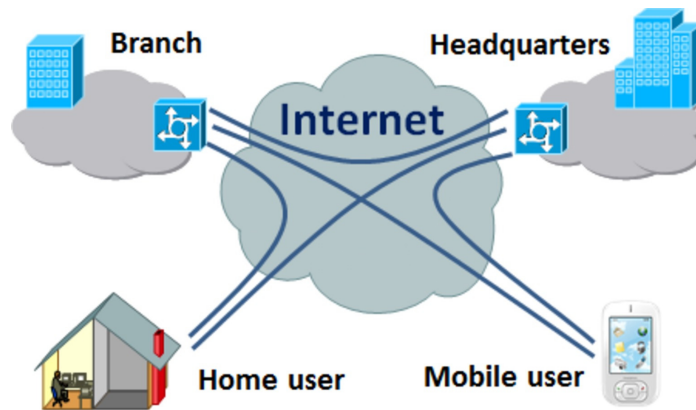
3. Following is an electronic spreadsheet to analyse employee salary and deductions of an international company and it shows a part of Mr.Susitha Kariyawasam’s salary scale. The company paid to Mr.Susitha by US\$ of currency and he is given his salary from SL Rupees.

	A	B	C	D	E	F	G	H
1	Skyline International Ltd. Monthly Salary Payment of Employee							
2	Month	November				SLR.		
3	Emp No	3407	Currency Conversion of US \$		137.5			
4	Name of Employee	Susitha Kariyawasam						
5								
6	Earnings (US \$)	US \$	LK. Rs.					
7	Basic Salary	750.00	103,125.00					
8	Overtime	102.00	14,025.00					
9	Other Allowances	6.00	825.00					
10	Attendance Incentive	12.00	1,650.00					
11	Total Earnings	870.00	119,625.00					
12	Deductions							
13	Tele Phone Bills	22.00	3,025.00					
14	Loan Recoveries	120.00	16,500.00					
15	festival Advance Rec.	2.70	371.25					
16	Vehicle Loan	0.00	0.00					
17	No Pay	0.00	0.00					
18	Total Deductions	144.70	19,896.25					
19	Gross Salary	725.30	99,728.75					
20	E.P.F. 8%	60.00	8,250.00					
21	E.T.F. 3%	22.50	3,093.75					
22								
23	NETT SALARY	642.80	88,385.00					
24								

- i. Write the formula to calculate Total Earning on cell B11.
 - ii. Write the formula to calculate Gross salary on cell B19.
 - iii. Write the formula to calculate E.P.F on cell B20. (E.P.F is calculated using the basic salary)
 - iv. Find the formula for cell B23 to calculate Mr.Susitha’s Net Salary for 2 decimal places by using functions.
 - v. Column C indicates all the amounts represented in SL rupees and F3 contains the currency rate. Find the formula for C7 in order to absolute cell reference.
4. A library of large university is changing over to a fully computerized system to control all their operations. The training department has been asked to develop a presentation to explain to the library staff how their new system will affect them.
- i. Write 3 features should the trainer use in the design of the presentation to make it is as interesting as possible?
 - ii. The presentation is to be stored on a laptop computer and a multimedia projector should be connected to the laptop. What is the port that can be used to connect the laptop and the projector?

- iii. Many of the books in the library have been scanned in and stored on the computer. What is the type of scanner used to read texts and recognize the character as well?
- iv. If the library has 10 computers for their intended functions, write 3 special devices required to interconnect computers as a network.

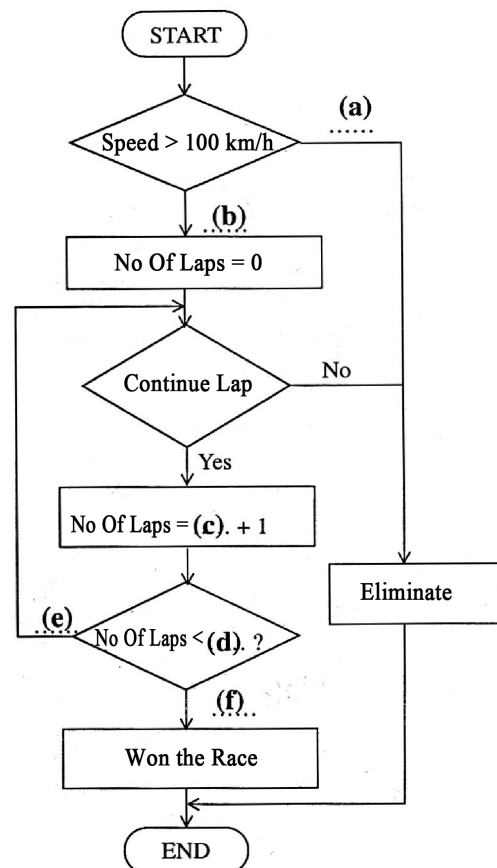
5. Following Figure shows a Network of an organization.



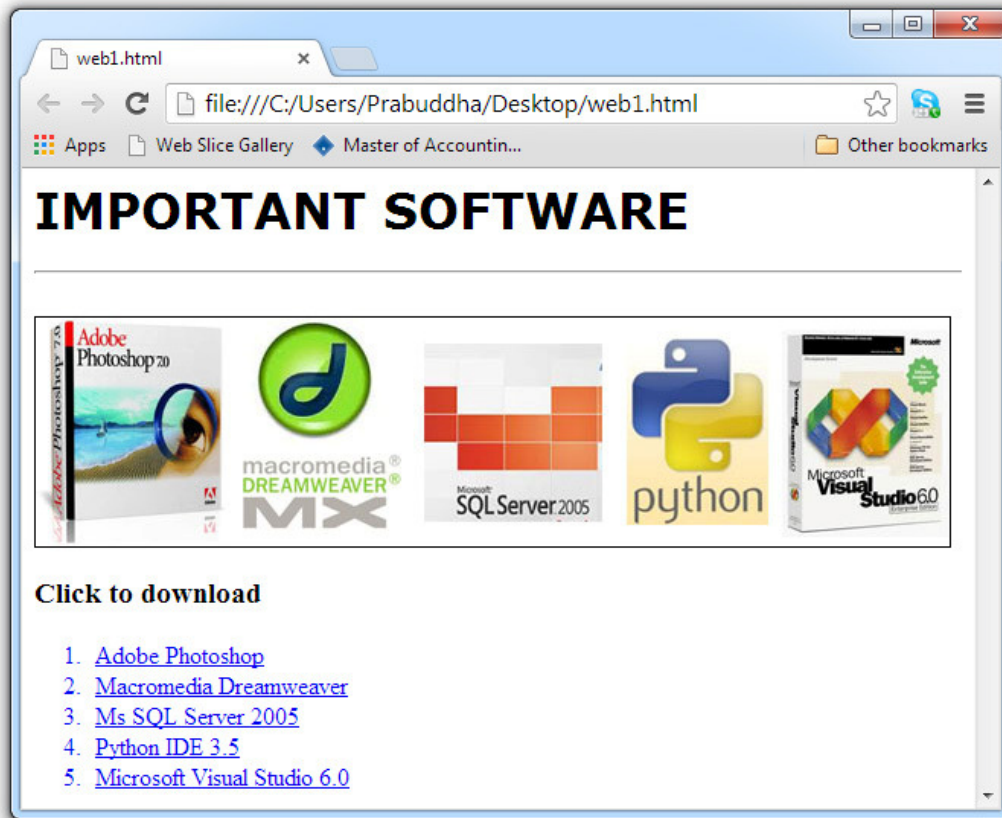
- i. Name the type of Network shown in the diagram.
- ii. What is the technology used to interconnect private networks securely using internet.
- iii. **Mobile users** can access with the network and what is the unguided data communication medium they used?
- iv. If the **home user** is always connecting with the network using internet, what is the most suitable internet connection for the purpose? Why?
- v. If the company wants to **restrict** the unauthorized devices or users, what is the method can be used?

6. Car racers who are going to participate to a car race competition. Racers always need to keep their speed greater than 100 km/h, and also have to complete 50 laps in to win the race. Participants who complete the 50 laps will be won the race. Others who couldn't complete the laps will be eliminated from the Race.

- i. Fill the following flow chart according to the above scenario.
- ii. Write a pseudo code for the logic indicated by flow chart.
- iii. What are the control structures can be identified in the flow chart?



7. Following questions are based on the HTML page given below.



- i. Write the piece of coding to display the image “software.jpg” in the HTML page.
- ii. Write the piece of coding to display “IMPORTANT SOFTWARE” as the top level heading and set the font style as “Verdana”.
- iii. When someone click on the text “Adobe Photoshop” it will be downloaded the file “Photoshop.zip” write the piece of coding for the case.
- iv. If the ordered list containing the software is an A,B,C,D,E list, how it defines? Write the first line of the coding.

- A. [Adobe Photoshop](#)
- B. [Macromedia Dreamweaver](#)
- C. [Ms SQL Server 2005](#)
- D. [Python IDE 3.5](#)
- E. [Microsoft Visual Studio 6.0](#)

***** END *****