



DURATION: TWO HOURS

Date: 09th July, 2010

Time: 10.00 am – 12.00 noon

Answer FOUR Questions ONLY.

Q1.

- a. What are the main features of a computer?
- b. Write short notes on the following:
 - i. Central Processing Unit
 - ii. Peripherals
 - iii. Memory
- c. “*Computer is a versatile machine*”. Comment on this statement.
- d. Discuss the importance of the networked computers for a country like Sri Lanka.

Q2.

- a. Convert the following decimal value into binary and binary value into decimal.
 - i. 645_{10}
 - ii. 10111001_2
- b. Why do we need a special language to communicate with the computer?
- c. There are five generations of computer programming languages. Give an example for each generation.
- d. How would you justify the need of high-level languages for computer programming?

Q3.

- a. What are the advantages and disadvantages of the Windows operating system, with respect to the other operating systems?
- b. State whether the following statements are TRUE or FALSE.
 - i. DOS is not a ‘friendliest’ operating system.
 - ii. Unix was specially designed for programmers.
 - iii. Linux needs more powerful computers to run on.
 - iv. XENIX and AIX are the two versions of LINUX.
 - v. OS/2 supports activities such as networking and multi user facilities
- c. Write short notes on the following, with respect to the windows operating system.
 - i. Windows explore
 - ii. My computer
 - iii. Control panel

Q4.

Use the following data set on the Excel worksheet to answer the questions given below.

| | A | B | C | D |
|----|---------|-------|---|---|
| 1 | IndexNo | Marks | | |
| 2 | AS001 | 34 | | |
| 3 | AS002 | 67 | | |
| 4 | AS003 | 83 | | |
| 5 | AS004 | 90 | | |
| 6 | AS005 | 23 | | |
| 7 | AS006 | 78 | | |
| 8 | AS007 | 38 | | |
| 9 | AS008 | 39 | | |
| 10 | AS009 | 71 | | |
| 11 | AS010 | 82 | | |
| 12 | AS011 | 75 | | |
| 13 | AS012 | 49 | | |
| 14 | AS013 | 25 | | |
| 15 | AS014 | 50 | | |
| 16 | AS015 | 33 | | |
| 17 | | | | |

- a. Write Excel functions to do the following tasks.
- To get the total marks of the above table.
 - To print the 'Grade' of each mark under column 'C' (Grade) according to the following criteria.

| Mark | Grade |
|------------------|-------|
| 20 <= Mark < 40 | F |
| 40 <= Mark < 70 | C |
| 70 <= Mark < 100 | A |

- To find the Maximum and the Minimum marks.

Q5.

- Describe how the Internet can be used to enhance the *learning* process. Please consider the features of the Internet.
- In the modern world almost all computers are connected to a network. And it is true that networking enables sharing resources. Briefly describe three draw backs that may occur due to being connected to a network.
- Write short notes for each of the following in the context of the Internet.
 - IP address
 - Protocol
 - Telnet
 - Search engine

Q6.

- a. Explain the importance of Database technology using your own words.
- b. Explain the following terms in the context of databases.
 - i. record
 - ii. field
 - iii. data
- c. Write down the most suitable data types to represent the table structure given below.

| Index | Surname | First Name | Age |
|--------------|----------------|-------------------|------------|
| 001 | Silva | Indika | 35 |
| 002 | Perera | Aruna | 28 |

*** All Rights Reserved ***