



**EASTERN UNIVERSITY, SRI LANKA**  
**EXTERNAL DEGREE IN SCIENCE**  
**FIRST EXAMINATION IN SCIENCE (1996/97)**  
**FIRST SEMESTER (June/July, 2004)**  
**EXCC 103 Computer Literacy and Applications**

**Repeat**

**Answer Four Questions Only**

**Time allowed: 02 hours**

**Q1**

- (a) Who is known as the father of the computer in the world? Who is known as the first Computer Programmer or Software Engineer in the world? {20}
- (b) Explain the computer generations. {40}
- (c) Explain the use of Artificial Intelligence and Expert systems in dealing with Mathematical and Scientific problems. {40}

**Q2**

- (a) Describe the two major components of a Computer system. {15}
- (b) Computer hardware is made up of five parts. List and describe them. {30}
- (c) Describe the two major categories of software. {15}
- (d) Name and explain the usage of different translators in computer environment. {20}
- (e) State the full name of the following abbreviations and briefly explain each:
- (i). ENIAC
  - (ii). MICR
  - (iii). HTTP
  - (iv). WWW
- {20}

Q3

- (a) Convert the following binary numbers into its equivalent decimal numbers:
- (i). 10010101
  - (ii). 00111011
  - (iii). 11101001 {15}
- (b) Convert the following binary numbers into its equivalent hexadecimal numbers:
- (i). 0000010101010011
  - (ii). 1101111010010101
  - (iii). 101111101011111 {15}
- (c) Convert the following numbers into its equivalent binary numbers:
- (i).  $175_8$
  - (ii).  $186_{10}$
  - (iii).  $5CF_{16}$  {30}
- (d) Compare and contrast the following:
- (i). Main memory and secondary memory.
  - (ii). Computer Languages and application packages.
  - (iii). Data and information
  - (iv). RAM and ROM {40}

Q4

- (c) Write down the main functions of an operating system. {20}
- (d) What is meant by System files? {20}
- (e) How can system files be copied from Hard disk to floppy disk? {20}
- (f) State the advantages of Windows-95 over MS\_DOS. {20}
- (g) Write short notes on any four of the following in the context of window-95:
- (i). My computer
  - (ii). Start menu
  - (iii). Recycle bin
  - (iv). Windows explorer
  - (v). Desk top {20}

Q5

(a) What are the facilities available in word processing packages? {20}

(b) Explain the usage of the following features in MS Word.

- (i). Page setup
- (ii). Replace
- (iii). Header and footer
- (iv). Change case



(c) What is an Electronic spreadsheet?

(d)

<u>Name</u>	<u>Marks</u>	<u>Grade</u>
Rany	95	
Sasi	75	
Roshan	45	

Write the formula in MS Excel to display the grades for the above data set. It should display the grades based on the following rules:

- If the marks is 90% or more, the grade is A
- If the marks is 70% or more and less than 90%, the grade is B
- If the marks is 50% or more and less than 70%, the grade is C, otherwise it is D. {20}

(e) State the advantages and disadvantages of a computerized record keeping system (database) over a manual filing system. {25}

Q6

(a) Name and draw flow chart structures. {20}

(b) Name the data types that can be used in QBASIC. Give examples. {20}

(c) Write an algorithm to read a word and to print whether it is palindrome or not.

*Hint:*

You may assume that there is no special character (space or hyphen) in the word. Palindrome is a word or sentence that gives the same meaning in both forward and backward directions.

For example, MALAYALAM, LEVEL, POP, ..etc. {30}

(d) Code your algorithm in QBASIC, {30}