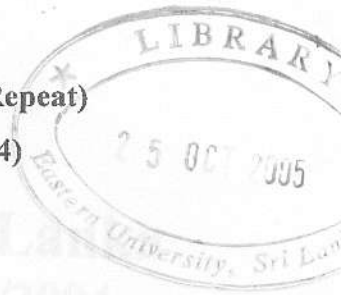


EASTERN UNIVERSITY, SRI LANKA
FIRST EXAMINATION IN SCIENCE 2003/2004 (Repeat)
FIRST SEMESTER (November/December, 2004)
CC101 Fundamentals of Computer Systems



Answer all questions

Time allowed: 1 hour

1.
 - (i) Describe briefly the computer generations. {20}
 - (ii) Describe briefly the kinds of computers. {20}
 - (iii) List and describe the computer peripherals. {20}
 - (iv) Describe the two major categories of software. {20}
 - (v) Describe briefly the computer virus. {20}

2.
 - (a) Convert the following numbers into its equivalent binary numbers.
 - i. 524_{10}
 - ii. $6B3F_{16}$ {10}

 - (b) Convert the following binary numbers into its equivalent decimal numbers.
 - i. 1100101010
 - ii. 1110101011 {10}

 - (c) Convert the following binary numbers into its equivalent octal numbers.
 - i. 1001100101
 - ii. 1101110010 {05}

 - (d) Convert the following binary numbers into its equivalent hexadecimal numbers.
 - i. 00110100101010111
 - ii. 10101010011001010 {05}

 - (e) Convert the following hexadecimal numbers into octal numbers:
 - i. 572
 - ii. E7AB {10}

 - (f) List and briefly describe the advantages of the computer networks. {20}

 - (g) Discuss LAN topologies. {20}

 - (h) What is **cache memory** and what is the purpose of it? Illustrate with a diagram. {20}