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Eastern University, Sri Lanka

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}