

Comilla University
Department of Computer Science and Engineering
1st Year 1st Semester Final Examination-2015
Session: 2014 - 2015

Course Name (Course Code): Introduction to Computer System (CSE 110)

Full Marks : 30

Time Allowed: 2 Hours

Answer any four (4) from the following questions. Figures to the right indicate full marks.

1. a. What is Computer? Describe some important characteristics of a computer. 2
b. Describe the functions of the various unit of a computer system with proper diagram. 2.5
c. List out and explain the types of microcomputer. 3
2. a. Subtract $(76)_{10}$ from $(126)_{10}$ and convert the result into equivalent octal value. 2
b. Convert $(6375.65)_{16}$ into its equivalent binary number and convert the binary number into its equivalent decimal number. 3
c. Simplify the following expression and draw the logic circuit 2.5
$$B\bar{C} + \bar{B}\bar{C} + BC$$
3. a. What is computer network? Describe different types of network topologies. 3
b. Name different types of computer networks and briefly explain their characteristics. 3
c. What is e-mail? What are the advantages of e-mail over paper mail? 1.5
4. a. Discuss the basic laws and rules of Boolean algebra. 2
b. State and prove the two basic De Morgan's theorems. 3
c. What is half-Adder (HA) and Full-Adder (FA)? Express the design of HA and FA. 2.5
5. a. Describe positive and negative representation of numbers in computer. 5
b. Express the decimal number -37 as an 8 bit binary number in the 2's complement system. 2.5
6. a. What is software? Describe the different types of software with example. 3
b. What is operating system? List out and explain the main functions of an operating system. 3
c. Differentiate between RAM and ROM. 1.5

Sabbir Ahmed cse_7th_batch