ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
Department of Computer Science and Engineering (CSE)

MID SEMESTER EXAMINATION

WINTER SEMESTER, 2016-2017

DURATION: 1 Hour 30 Minutes

FULL MARKS: 75

CSE 4105: Computing for Engineers

Programmable calculators are not allowed. Do not write anything on the question paper.
There are **4 (four)** questions. Answer any **3 (three)** of them.
Figures in the right margin indicate marks.

1.
   a) Why do we study number systems of binary and hexadecimal? — 7
   b) "A binary number can be subtracted from another binary number by using adder". Explain it by an example. — 8
   c) Write the relationship with ROM on motherboard, BIOS, operating system (OS) and RAM in a computer system. — 10

2.
   a) State the actions taken place after a key is pressed on a keyboard to store it in memory and then display on the monitor. — 7
   b) Briefly discuss ergonomics with relationship to monitor. — 8
   c) There are different types of printers, state those. Briefly describe a laser printer. — 2+8

3.
   a) For handling data in computer, coding is necessary. Discuss Unicode. — 7
   b) Briefly describe machine cycle of a CPU. — 8
   c) Answer the followings:
      i. State names of various processor manufacturers. What are the parameters for comparing processors? — 1+3
      ii. Discuss serial port and parallel port. — 6

4.
   a) List different types of memory located inside processor, on motherboard and external to motherboard. Discuss flash memory. — 3+4
   b) Briefly discuss defragmentation technique. — 8
   c) Based on the manufacturing materials and technology there are mainly 3 types of memories. What are those? Briefly describe the magnetic type memory. — 1+9