## 2009

## MASTER OF BUSINESS ADMINISTRATION

(Computer Applications in Business)

[1st Semester]

(Theory)

**PAPER**—108

Full Marks: 50

Time:  $1\frac{1}{2}$  hours

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

(2)

## **FIRST HALF**

- 1. Answer any four questions of the following:  $5 \times 4$ 
  - (a) Convert the following number to the given base:

$$(i) (45)_{10} = (?)_8 = (?)_2$$

$$(ii)$$
  $(B2)_{16} = (?)_8 = (?)_{10}$ 

- (b) Perform the following operations:
  - (i) 1010 110011 using 1's complement.
- $\begin{array}{c} (ii) \quad 1100101 \leftarrow 110 \\ \text{using 2's complement.} \end{array}$ 
  - (c) Simplify the Boolean expression

(i) 
$$Z = AB + A(B+C) + B(B+C)$$

(ii) 
$$Z = (x + y) \left[ \overline{x} (\overline{y} + \overline{z}) \right] + \overline{x} \overline{y} + \overline{x} \overline{z}$$
.

- (d) What is system software? Explain: Assembler, Compiler. Differentiate between Compiler and Interpreter.
- (e) Draw AND, OR and NOT gate using NOR gates only.
- (f) Explain the basic block diagram of a Computer System.
- 2. Answer any two questions:

 $10 \times 2$ 

- (a) What is operating system? What are the differences between single user and multiuser operating system? Explain the function of the operating system.
- (b) What are the differences between primary and secondary memory? Differentiate between ROM and RAM. What is internet and e-mail? Give the name of few website who give us free e-mail facilities.

(c) What is DBMS (Database Management System)? Why DBMS is used? Explain the basic steps for Mailmerged in MS-Word. Explain de Morgan's theorem for Boolean algebra.

[Internal Assessment: 10 Marks]