MCA 1st Semester Examination, 2019

MCA

(Introduction to IT)

PAPER — 101

Full Marks : 100

Time : 3 hours

Answer **Q. No. 1** and **four** questions from the rest

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

1. Answer any *five* questions :   2 × 5

   (*a*) Write down the major characteristics of non-impact printer.

   (*b*) What is the function of MIDI and VGA slots ?

(c) What is bus ?

(d) What do you mean by freeware ?

(e) Write down the four major properties of Macintosh OS.

(f) What is threat ?

(g) What is the difference between optical storage and magnetic storage ?

(h) Perform $(29)_{10} - (15)_{10}$ using 2's complement method.

2. (a) What is operating system ?

(b) What are the functions of operating system ?

(c) What is the difference between CUI and GUI operating system ?

(d) What are the utilities of device drivers ?

$2 + 5 + 4 + 4$

3. (a) What is the difference between data and information ?

(b) Briefly explain the information processing cycle with block diagram.

(c) What is the difference between system software and application software ?

(d) Compare the disk memory and chip memory with their advantage and limitations. 3+4+4+4

4. (a) Define clock cycle of a processor.

(b) What are the major characteristics of CISC processor ?

(c) What is flash memory ?

(d) Write down the functions of the following ports : SCSI, USB, Firewire, HDMI, PC Cards, PS/2, Ethernet. 2+4+2+7

5. (a) What is interrupt ? What are the different types of interrupts ?

(b) What is hacking ? Explain different hacking methodology.

(c) What is the difference between weighted and non-weighted code ? (2 + 3) + (2 + 5) + 3

6. Write short notes on any *five* : 3×5

  (*i*) Spyware

  (*ii*) Cookies

  (*iii*) CRT monitor

  (*iv*) Bar Code Reader

  (*v*) SRAM

  (*vi*) Magnetic Disk.

7. (*a*) What is the difference between commercial software and open source software ?

  (*b*) What are the security measures to be taken to keep the computer safe ?

  (*c*) Perform :

  (*i*) $(316)_9 = (?)_2$

  (*ii*) $(3 \cdot AB)_{16} + (D28)_{16} = (?)_8.$

$$5 + 5 + \left(2\frac{1}{2} + 2\frac{1}{2}\right)$$

[*Internal Assessment* — 30 marks]