RB-16033   Seat No._____

B. C. A. (Sem. I) Examination
March / April – 2011
Computer Fundamental & Emerging Technology

Time : **3** Hours]   [Total Marks : **100**

1 (a) Answer the following questions : (any three)   **20**
   (i) What is operating system ? Explain function of an operating system in detail.
   (ii) List the different language translators. Explain any one in detail.
   (iii) Draw block diagram of computer system. Explain each functional unit in brief.
   (iv) List different storage devices. Explain any direct access storage device.

2 (a) Do following conversion :   **10**
   (i) $(110011)_2$ - $(101)_2$ using 2's complement method.
   (ii) $(5AD2)_{16}$ = ( )$_2$
   (iii) 10110 + 101011 = _____
   (iv) Subtract 11101 from 100101 by using 1's complement.
   (v) Obtain BCD code for "GEMINI".
   (b) Answer the following questions : (any **two**)   **10**
   (i) Describe : TCP/IP
   (ii) Explain : Cache Memory
   (iii) Explain : Virus

3 (a) Compare and contrast the followings :   **10**
   (i) SRAMs v/s RAMS
   (ii) CD-ROM v/s Erasable Optical Disk.
   (iii) Micro computer v/s Mini computer
   (iv) Dot Matrix printer v/s Ink-jet printer
   (v) Latency time v/s Seek time
   (b) Give the full form : (any **ten**)   **10**
   (i) ALU
   (ii) ENIAC
   (iii) EBCDIC
   (iv) ULSI
   (v) OCR
   (vi) DVD

(vii) PROM

(viii) RAM

(ix) EMR

(x) WORM

(xi) NIC

(xii) WAN.

4   Answer the following : (any **four**)   **20**

(i)   Describe : Cell Phone Frequency and Cell Phone Network.

(ii) Explain Bluetooth technology.

(iii) Write definition of compiler, Interpreter and assembler.

(iv) Explain 1's complement and 2's complement with example.

(v)   Write a note on Wi-Fi Technology.

5   Write short notes : (any **four**)   **20**

(i)   Various communication ports

(ii) Subtract (55) 10 from (60) 10 by using 2's compliment.

(iii) GPS

(iv) GIS

(v)   MICR.

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