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(Held in 2023)

BACHELOR OF COMPUTER APPLICATION

Paper : BCAHC1016

(Computer Fundamental and ICT Hardware)

Full Marks : 60

Pass Marks : 24

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Choose the correct answer : 1×5=5

(a) Which one is the optical memory used in computer?

- (i) CD-ROM**
- (ii) Cache memory**
- (iii) Floppy disk**
- (iv) Hard disk**

(b) 2's complement of 1010 is

- (i) 1101**
- (ii) 0110**
- (iii) 1001**
- (iv) 1110**

(c) Which of the following is not a type of computer code?

- (i) EDIC
- (ii) ASCII
- (iii) BCD
- (iv) EBCDIC

(d) What is the high-speed memory between the main memory and the CPU unit called?

- (i) Register memory
- (ii) Cache memory
- (iii) Storage memory
- (iv) Virtual memory

(e) A process is a

- (i) single thread of execution
- (ii) program in execution
- (iii) program in memory
- (iv) task

2. Answer the following questions : 2×5=10

(a) What is the function of arithmetic and logical unit?

(b) Convert $(A4)_{16}$ to decimal number system.

- (c) Define Cache memory.
- (d) What is Bootstrapping a computer?
- (e) Calculate the 2's complement representation of 100110.

3. Answer any *five* of the following questions :

5×5=25

- (a) Explain assembler, compiler and interpreter.
- (b) Draw the block diagram of microprocessor.
- (c) Write a flowchart to find the factorial of an integer number.
- (d) Explain about linker and loader.
- (e) Explain the concept of virtual memory.
- (f) What is RAM? Explain different types of RAM.
- (g) Explain impact and non-impact printers.

4. Answer any *two* of the following questions :

10×2=20

- (a) Explain any INTEL processor in brief.
- (b) Explain, in detail, about FAT and NTFS file system.

(c) Write short notes on any *two* of the following :

- (i) Switch
- (ii) RJ45 connectors
- (iii) Patch panel
- (iv) MODEM

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