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## **CAIIIS-N 238 B-2K13**

# **B.C.A.** IIIrd Semester Degree Examination

**Computer Science** 

(Computer Architecture)

Paper - BCA-3.6

(New)

Time: 3 Hours

Maximum Marks: 80

#### Section - A

1. Answer all questions. Each question carries 2 marks.

 $(10 \times 2 = 20)$ 

- a) Define computer architecture.
- b) What is computer structure and computer function.
- c) Explain the term unit of transfer.
- d) What is hard failture?
- e) Differentiate between SDRAM and RDRAM?
- f) Define the terms a non-movable disk and removable disk with an example.
- g) What are the advantages of CD-ROM.
- h) Name three techniques for performing I/O
- i) What are the disadvantages of interrupt -driven I/O.
  - j) What is CISC and RISC.

#### **Section - B**

Answer any four questions. Each question carries 5 marks.

 $(4 \times 5 = 20)$ 

- 2. Explain the main structural components of a Computer.
- 3. Explain basic instruction cycle.
- List the key characteristics of computer memory system.
- 5. Briefly explain the major types of semiconductor memory.
- 6. Draw and explain the block diagram of an I/O module structure.
- 7. Discuss the physical characteristics of disk system.

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#### Section - C

Answer any four questions. Each question carries 10 marks.

 $(4 \times 10 = 40)$ 

- 8. Describe the bus interconnection scheme.
- 9. Explain the elements of cache design.
- 10. Draw and explain 256KB and 1MB memory organisation.
- 11. Write a note on DMA.
- 12. Describe the important characteristics of CISC and RISC processor.
- 13. Draw the block diagram of PPI and Explain.