

M/52/2110

10562/N

Total No. of sheet used : 01 Total No. of Questions: 09
Subject : Computer System Organization and Architecture
Class : BCA 3rd Semester
Paper : BCA-214
Title of Paper : Computer System Organization and Architecture
Time Allowed : 3 Hours
Maximum Marks: 75

Note: Candidates are required to attempt five questions in all selecting at least two questions each from sections A and B. Section C is compulsory.

SECTION A

- Q1. a) Differentiate between RISC and CISC architecture. 7.5
b) Explain the functioning of ALU and control unit. 7.5
Q2. What is memory? What is hierarchy of memory? Discuss working of any one type of secondary memory in detail. 15
Q3. What are different fields of an instruction format? Differentiate between zero address, one address, two address and three address instruction formats. 15
Q4. What do you mean by an interrupt? What are various types of interrupts? Discuss interrupt cycle in detail. 15

SECTION B

- Q5. What are the basic micro operations? Draw the block diagram of each micro operation. 15
Q6. a) What is the role of I/O interface? Discuss its working in detail. 7.5
b) Elaborate memory mapped I/O. 7.5
Q7. What do you mean by Asynchronous Data Transfer? What are the methods of achieving Asynchronous Data Transfer? Explain 15
Q8. Discuss in detail about Programmed I/O and Interrupt controlled I/O. 15

SECTION C

- Q9. a) What are the design principles for modern computers? 03
b) What do you mean by instruction level parallelism? 03
c) Write short note on RAID. 03
d) What do you mean by control memory? 03
e) What is Direct Memory Access? 03