

Exam.Code:0916
Sub. Code: 6400

2023

B.E. (Computer Science and Engineering)
Fourth Semester
CS-405: Computer Architecture and Organization

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Section.

x-x-x

1. Attempt the following:-

- (a) Discuss the purpose of parallel processing.
- (b) What do you understand by indirect addressing?
- (c) Differentiate between RISC and CISC.
- (d) What is associative mapping?
- (e) Differentiate between hardwired and Micro programmed control units.

(5*2=10)

SECTION A

2. (a) Discuss the basic computer instruction formats. 5
- (b) What are the functions of control unit? Draw and explain basic control unit of computer system. 5
3. (a) Explain the various types of addressing modes with suitable example. 4
- (b) Write an algorithm and Draw a flowchart for adding and subtracting two fixed point binary numbers. 6
4. What is instruction cycle? Explain the flowchart of instruction cycle. 10

SECTION B

5. (a) Discuss mapping process in contrast with memory management? Also explain each type of mapping process. 5
- (b) Explain the working of four segment instruction pipeline with suitable diagram. 5

P.T.O.

(2)

- 6 (a) Explain DMA transfer in detail with the help of diagram 5
- (b) What is the basic advantage of using interrupt –initiated data transfer over transfer under program control? Discuss priority Interrupts in detail. 5
7. Write a short note on:
- (a) Virtual Memory 5
- (b) Pipeline hazards and their resolution. 5

x-x-x