

Tribhuvan University
Faculty of Humanities & Social Sciences
OFFICE OF THE DEAN

2020

Bachelor in Computer Application

Course Title: Microprocessor & Computer Architecture

Code No: CACS155

Semester: II

Full Marks: 60

Pass Marks: 24

Time: 3 hrs

Candidates are required to answer all the questions in their own words as far as possible.

Group B

Attempt any SIX questions.

[6×5=30]

2. Explain the addressing modes of 8085 with suitable example.
3. Draw the timing diagram for MVIA, 35H and explain in brief.
4. What do you mean by instruction mapping? Explain how to convert an instruction code to a microinstruction address.
5. Define stack. Explain the stack organization.
6. Explain the arithmetic pipeline with example.
7. Explain the following instructions.
 - a) LDA 7050H
 - b) CPI 35H
8. What are the typical characteristics of CISC instruction set architecture? Explain.

Group C

Attempt any TWO questions.

[2×10=20]

9. Define the term mnemonics, instruction cycle and machine cycle. There are two tables holding twenty data whose starting address is 300H and 3020H respectively. Write a program to add the content of first table with the content of second table having same carry index. Store sum and carry into the third and fourth table indexing from 3040H and 3060H respectively.
10. For the expression
$$Y = (A+B) * (C+D)$$
Write down the code for one address, two address and three address instruction formats.
11. What is parallel processing? Explain the benefits of parallel processing. Explain the classifications of parallel processing by M.J. Flynn. [2+2+6]