# Charotar University of Science and Technology [CHARUSAT]

## Chandubhai S. Patel Institute of Technology [CSPIT]

## U & P U. Patel Department of Computer Engineering

## Practical List

| Subject code | : | CE258 | Semester | : | 4 | Academic Year | : | 2022-23 |
|---|---|---|---|---|---|---|---|---|
| Subject name | : | Microprocessor and Computer Organization | | | | | | |

<table>
<tr><th>Sr. No.</th><th>Aim</th><th>Hrs.</th><th>CO</th></tr>
<tr><td>1.</td><td>Assembling of Computer.</td><td>2</td><td>1</td></tr>
<tr><td>2.</td><td>Write a program to convert a given number system to other number system.</td><td>4</td><td>1</td></tr>
<tr><td>3.</td><td>Implement a circuit in Logisim to display given binary number in decimal on to seven segment display.</td><td>2</td><td>1</td></tr>
<tr><td>4.</td><td>Implement a circuit in Logisim which perform Addition and Subtraction of sign number.</td><td>2</td><td>1</td></tr>
<tr><td>5.</td><td>Write a program which perform multiplication using booth algorithm.</td><td>4</td><td>2</td></tr>
<tr><td>6.</td><td>Implement a circuit in Logisim which perform Arithmetic and Logic unit.</td><td>4</td><td>2</td></tr>
<tr><td>7.</td><td>(Basics of assembly level programming)<br>Perform following operations on 8-bit data
<table>
<tr><td>addition</td><td>and</td><td>Logical left shift</td><td>Rotate left with carry</td></tr>
<tr><td>subtraction</td><td>or</td><td>Logical right shift</td><td>Rotate left without carry</td></tr>
<tr><td>multiplication</td><td>xor</td><td>Arithmetic left shift</td><td>Rotate right with carry</td></tr>
<tr><td>division</td><td>not</td><td>Arithmetic right shift</td><td>Rotate right without carry</td></tr>
</table></td><td>2</td><td>3</td></tr>
<tr><td>8.</td><td>(Array handling in Assembly level programming)<br>Create an array. Perform addition of all even numbers from array and save answer in one variable.</td><td>2</td><td>3</td></tr>
<tr><td>9.</td><td>(String Handling in Assembly level language)<br>Find out whether the given string is palindrome or not and print appropriate message. Don't use procedure.</td><td>2</td><td>3</td></tr>
<tr><td>10.</td><td>(Procedure in Assembly Level Language)<br>Write an assembly code to evaluate the answer of blow given series and store the answer in ANS variable. Program should have only one procedure to compute factorial of number. Series: 1! -2+3!-4+5!-6+7!-8+9!-10</td><td>2</td><td>3</td></tr>
<tr><td>11.</td><td>Write a assembly level code for given c program.</td><td>2</td><td>3</td></tr>
<tr><td></td><td>Submission</td><td>2</td><td></td></tr>
<tr><td colspan="2">Prepared By: Ronak Patel, Asifiqbal Thakor</td><td colspan="2">Date: 02/12/2022</td></tr>
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