**Department of Computer Science and Engg**

**Govt Engg College Thrissur**

**CS 202 Computer Organization and Architecture**

**First series Test June 2020**

**Time: 1 hour**

**Max Marks: 20**

**Answer all questions**

1. Taking the last four digits of your phone number as example data, show how the liitle endian and big endian memory assignments stores the data in 32 bit processor. For simplicity , assume that each decimal digit is sored as a one byte binary number (4 marks)
2. Describe how the PUSH and POP operations in a stack are implemented in ARM processor with suitable examples ( 4 marks)
3. Illustrate the following instructions by taling the binary version your roll number as the content of R0, Carry Flag initially ZERO () ( 4 marks)

LShiftL #3,R0

RotateL #3,R0

1. Generate the complete control sequence for the instruction (8 marks)

Move op1, R1

|  |  |
| --- | --- |
| Index | Op1 |
| 0 | 20(R0) |
| 1 | (R0) |
| 2 | (R0)+ |
| 3 | -(R0) |
| 4 | R0 |
| 5 | #2000 |
| 6 | (R0,R3) |
| 7 | -40(R0) |
| 8 | #-100 |
| 9 | 20(R1,R3) |

Where index the last digit of your phone number. Accordingly you have to select the op1