

CSN-221

ASSIGNMENT-2

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05

Q.1).Write simpleRISC program to find ramanujan number.

Ans).

mov r13,1

mov r12,0

.loopa

mov r11,0

mov r10,1

.loopb:

mov r9,r10+1

.loop c:

mul r8,r10,r10

mul r8,r8,r10

mul r7,r9,r9

mul r7,r7,r9

add r6,r7,r8

cmp r13,r6

beq.case1

inc r9

cmp r13,r9

bgt.loopc

inc r10

cmp r13,r10

bgt.loopb

cmp r11,2

beq.case2

inc r13

cmp r12,0

beq.loopa

.case1:

inc r11

.case2:

inc r12

mov r1,r6

The final answer is stored in register r1.