

INSTITUTE OF COMPUTER TECHNOLOGY
B-TECH COMPUTER SCIENCE ENGINEERING 2025-26
SUBJECT:-Microcontroller & Applications

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BRANCH: CYBER SECURITY

BATCH: 52

PRACTICAL_9

Aim: Learning advanced programming using Jumps and CALLs.

Write a program to Generate a square wave of 4 KHz frequency on pin P3.7. Assume the crystal frequency to be 11.0592 MHz. Implement the program on Proteus module and verify the frequency output. Also implement the same on 8051 hardware kit to verify the same.

CODE:

```
Target 1
01  AGAIN:
02  SETB P3.7
03  ACALL DELAY
04  CLR P3.7
05  ACALL DELAY
06  SJMP AGAIN
07
08  DELAY:
09  MOV R0,#3
10  LOOP1:MOV R1,#20
11  LOOP2:DJNZ R1,LOOP2
12  DJNZ R0,LOOP1
13  RET
14  END
15
16
```

OUTPUT:

