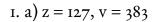
CS 431 Homework 1

Soham Karanjikar

I ANSWERS



- b) y = I
- c) The remainder is =n&(0111)
- d)
- i) 4
- ii) 12
- iii) 2
- iv) 7
- v) 15
- 2.
- a)227
- b)226.84 but value gets truncated so quatization error is 1.
- c)90-100 with 15 bits because smallest range and highest number of bits.
- 3.
- a) Highest 10bit number is 1023. Clock is 8.192kHz. Timer overflows at 8.0078Hz. Every 124.8ms.
- b) 800

time	BG	DISK	NETWORK	TIMER
0ms:				
2ms:				
4ms:				
6ms:				
8ms:				
10ms:				
12ms:				
14ms:		1		
16ms:				
18ms:				
20ms:				
22ms:				
24ms:				
26ms:				
28ms:				
30ms:				
32ms:				_
34ms:				
36ms:				
38ms:				
40ms:				
42ms:				
44ms:				
46ms:				
48ms:				
50ms:				

b) In 200 ms only 100ms are used in background task, and this pattern continues, so for a 10 second task you would need 20 seconds to complete.