$PT = 1100000000111100101010$

$m1 = 11000000$

$m2 = 00111100$

$m3 = 10101000$

$IV = 11001100$

$k = 10000101$

$ipad = 01011100$

$opad = 00110110$

$z0 = 1100110011011001$

$z1 = 0000011111000000$

$z2 = 0010000000111100$

$z3 = 0100000010101000$

$z4 = 1000111000010110$

$p = 1100110010110011$

$q = 00001000$

$r = 0000100010010111$

$t = 00101110$

## HMAC construction

Plaintext:
```
110000000111100101010
```
Next Plaintext

length of Initialization Vector (IV), l, 8

IV:
```
11001100
```
Next IV

Key, k:
```
10000101
```
Next Key

ipad: 0x5C (01011100)
opad: 0x36 (00110110)

Put your text of size 21 to get the corresponding value of hash of size l.

Your text:
```
0000100010010111
```
get hash

Hashed value:
```
00101110
```

Final Output:
```
00101110
```
Check Answer!

CORRECT!!