- (6.1) Yes, x is periodic The period of x is 211.
- (6.2) @ The Griven Impulse Reprouse is hBnJ.
 input signal is circon y[n] = h[n] #eywon = & h[x] x e (a-Y)jus. = ejuon & n(x) e-juot. = ejwon H(ejwo) = H(ejwo).x[n]

Output = yen] = 21[n]. H(e) wo)

By [n] = n[n] *h[n].

y[n]= 多元[k]·h[n-k].

Now applying absorbe time formier transform.

Yew) = = (& n/k) h/n-k)einn

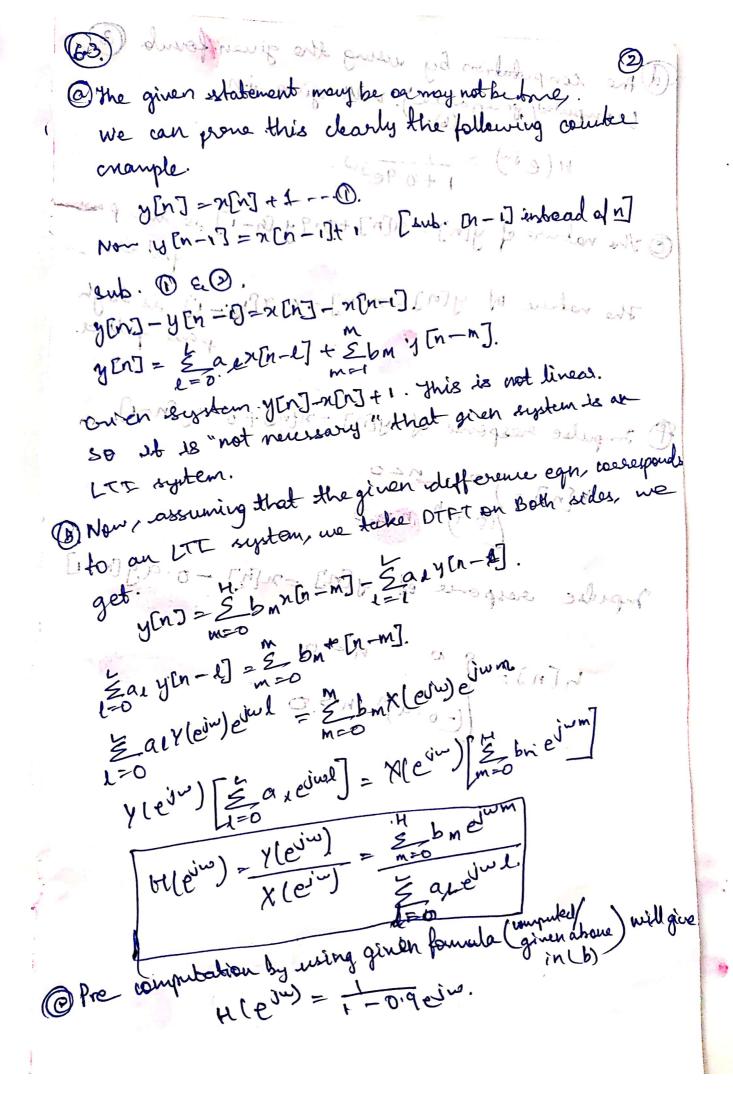
Yew) = = (& n/k) h/n-k)einn

= 2 [x[k] (2 h[n-k]e-jw[n-k])e-Jwk (replace n-te by some 7,

= Zn[k]e-jwk(Hejw))=H[ejw)Zn[k]e-jwk

fromdat. = Hlein) x (ein)

(Nein) = X(ein) H(ein) : Henre Proved.



Dene computation by weing the given found 3. H(eim) = 1 +0.9ein. The value of year = n[n], to: 9 y En-1] is low pass The nature of y[n] = nln]. To ally - i) is dighter. monde serpone of year and on a gentil h [n] = wo [mody in so] we (mody in so) Mega) [= a, cial) : K(c") [= bh clam Muler Service Service