Part C

B)

Energy=lim (sum(-15 to 15))(z[n])^2

=5\*(z[0]^2+z[1]^2+z[2]^2+z[3]^2+z[4]^2+z[5]^2)

=(0+0.6986^2+(-0.2228)^2+(-0.2876)^2+ 0.2061^2+0)\*5

=3.396806

Power=1/(2n+1) \*energy

=1/31 \*3.396806

=0.10957

Part E

C)

Theoretically FT of m[n] is rect

r[n]=m[n]\*cos(30\*pi\*n);

r[n]=m[n]\*(1/2J)[e30\*pi\*j\*n ~~+~~ e-30\*pi\*j\*n ]

R[jw]=(1/2j)\*[ m[w-30\*pi] +m[w +30\*pi]];

Therefore R[jw]=(1/2j) F.t of m[n] shifted +30\*pi and -30\*pi

R[jw] is rect shifted +30\*pi and -30\*pi