T(einbot), 8 (M-to) Using inverse FT: = J8 (M- to) e 224 du We know infulse for 8(0). 1 = 0/8(to-to) evizatot du = eszatot 8(0)dp . Proved. a) Tf (0s(2440t))= [S(M-MO)+S(M+MO)] Using inverse FT.

S 1 [S(M-Mo) + 8(M-Mo)] evilyhtolyh We know inpulse is 8(0)=1 & via shifting property

1 [3 δ (μ-μ_o) e^{j27μt} dμ + °) δ (μ+μ_o) e^{j27μt} dμ

2 μ= μ_o

2 μ= -μ_o 1 [eizzhot + e-jzzhot] > Cos(j27 μot) b) 7{sin (27 pot)]- 1[8(p-po)-8(p-po)] Sol [8(μ-μο) - 8(μ+μο)] eizzut du

we know in pulse fr zis [el shifting property use

in [[S (μ-μο) event du -] 8(μ-μο) eizzut du]

2) [S (μ-μο) event du -] 8(μ-μο) eizzut du]

μ=μο

μ=μο

μ=μο

Σί [eizut e jezust] =) Sin (j27μοt)