Hekhan Hakim Kaowson 170 50 45 carrier is cos1000xt m(+) = cos (45) cos (90t) = 1 [2005 (45t) + cos (90t)] = 1 cos (90+) = 1 cos (35+) + 2 cos (49)

C) carrier (cos (1000 xt) $f = \frac{1000\pi}{2x} = 500 \text{ H}2$ Spectrum of carried + , 0001 000 (1 object (1 11) 2004 ((00) ... (el) ... (1) 1.1606010001 -500 M(W) = 1 M(W+Ve) + 1 M(W-We) Similarly, M(f) = 1M(f+fe) + 1 M (f-fe) So, spectrum, Here, f = 500 H 2 19 1/a 1/2 -135 +500 - 45 +500 45 +500 135 +500

We Know, MLSB (W) = MM(f) cos w t + m (f) sin w t 50,00 $m(t) = \frac{1}{2} \cos(195t) + \frac{1}{2} \cos(45t)$ m(t) = (1 sin (135t) (1 1 sin (45t) $\frac{1}{2} \sin(135t) \cos(1000xt) + \frac{1}{2} \cos(45t) \cos(000xt) + \frac{1}{2} \sin(45t) \sin(1000xt) + \frac{1}{2} \sin(45t) \sin(1000xt) + \frac{1}{2} \sin(45t) \sin(1000xt)$ = 1 (00 (135+1000 x) + + cos (135-1000 x) + = 1 [cos (135) cos (1000xt) + sin (135) sin (1000xt) + 1 teos (45t) co= (1000xt) + 15in (45t) sin(1000xt) = 1 cos (125 +1000 2) + + 2 cos (45+10002) + in Alx 45 +500 135 +500 175 -50° 45 50°

met coswet-met) sinuet m(+) = = (195 = 1 5in(135t) + 12 sin (45t) od (ter) 30 2 1 (1001) 05 (2001) 000 ((+ch) we for Oxidal) 1 cos (185t) cos 1000xt 1 2 cos 45t cos 1000xt = 1 cos135 + cos1000 nt + (72 sin 135+ sin 1000x+) + 1 205 95t cos 10000t - 1 sir 45t civ 1000 2 = 1000 (135-1000x) + + 1 (45-1000 at)

 $\frac{1}{2\pi} - \frac{1}{2\pi} - \frac{1}{2\pi} = \frac{1}{2\pi} + \frac{1}{2\pi} = \frac{1}{2\pi}$

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