VE216 Introduction to Signals and Systems

HOMEWORK 5 ATTACHED PAGES April 24, 2020 Yihua Liu 518021910998

1. (b) The graph of my answer as a function of t is

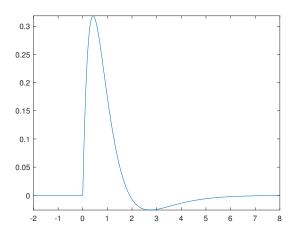


Figure 1. 1(b)-1.

The graph generated by MATLAB impulse is

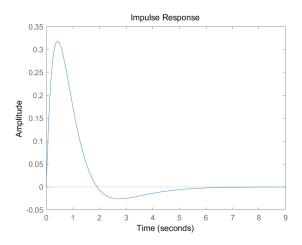


Figure 2. 1(b)-2.

2. (a) The sketches of $X_p(\omega)$ for $-9\pi \le \omega \le 9\pi$ for $\omega_0=\pi,\ 2\pi,\ 3\pi,$ and 5π are respectively

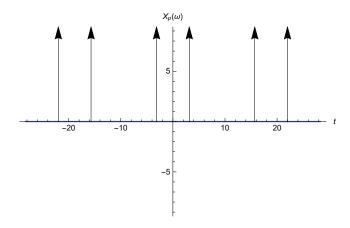


Figure 3. 2(a)i.

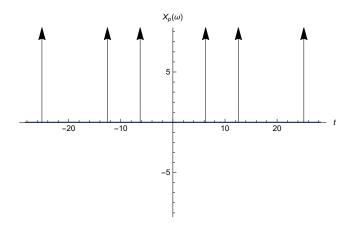


Figure 4. 2(a)ii.

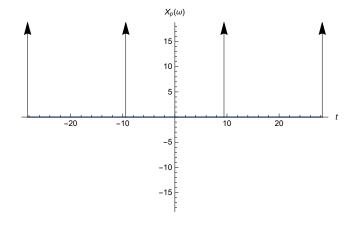


Figure 5. 2(a)iii.

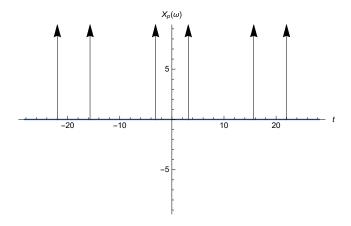


Figure 6. 2(a)iv.

11. (b) The sketch of the efficiency of the modulated signal as a function of the modulated index m is

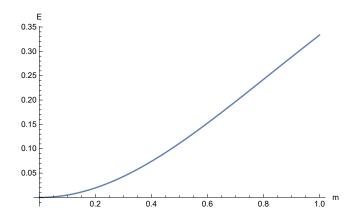


Figure 7. 11(b).