

③ If the Fourier transform of the signal  $v(t)$  is

$$V(\omega) = AT \frac{\sin \omega T}{\omega T}$$

then the energy contained in  $v(t)$  is

a)  $\frac{A^2}{2}$

b)  $A^2$

c)  $A^2 T$

d)  $\frac{A^2 T}{2}$

⑥ The minimum sampling rate for the signal  $v(t) = \cos \omega_0 t + \sin 8\omega_0 t$  is

a)  $2f_0$

b)  $4f_0$

c)  $8f_0$

d)  $16f_0$