

Q1. a) In relation to *Fourier analysis* state the meaning and significance of

- i) odd and even functions
- ii) half-wave symmetry {i.e. $f(t+\pi) = -f(t)$ }.

Illustrate each answer with a suitable waveform sketch.

b) State by inspection (i.e. without performing any formal analysis) all you can about each of the periodic waveforms shown in FIGURE 1 in terms of their Fourier series when analysed about $t = 0$.

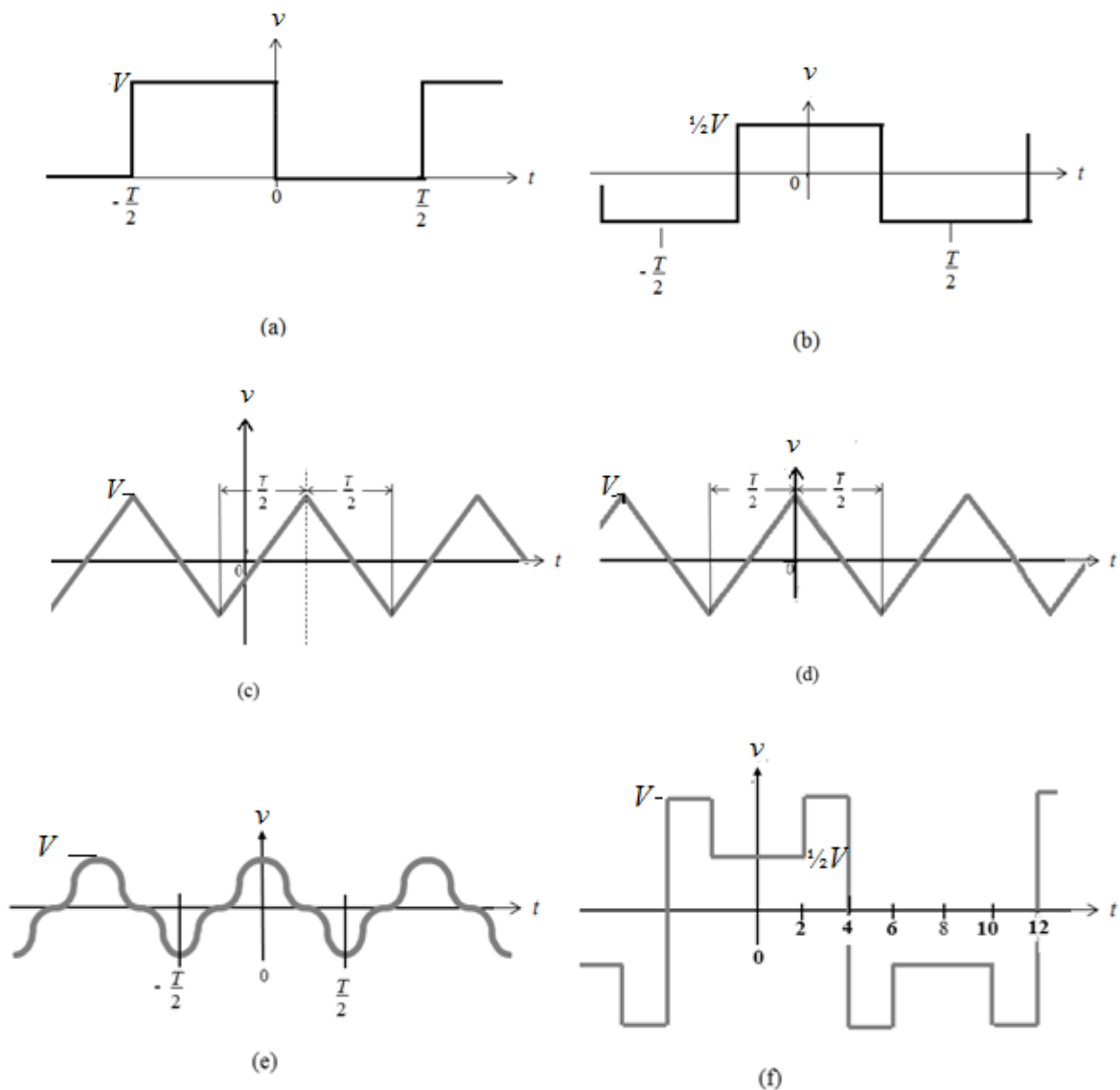


FIGURE 1