

$$3.1(1) T_{max} = 2 + 6 \cdot 1 = 2 \cdot 1 \text{ ns}$$

$$f = \frac{1}{T_{max}} = 4.762 \times 10^8 \text{ Hz}$$

$$(2) S = \frac{2 \cdot 1}{7} = 0.3$$

$$(3) S_{max} = \frac{0.1}{7} = \frac{1}{70} = 0.0143$$