一、填空题

- $1 2\Omega$, 0.64W
- 2 22.5J, 4.5J
- 3 10, 0.25W
- 4 1.75H, 2H
- $5 220\Omega$, 1.2H
- $6 \ 10^5 \, \text{rad/s}$, 500Ω

二、计算题

1
$$P_{2A} = 4 \,\mathrm{W}$$
, $P_{2V} = 20 \,\mathrm{W}$

2 (1)
$$U_{OC} = 8V$$
, $R_i = 4\Omega$

(2)
$$R = 36\Omega$$

3 (1)
$$H(j\omega) = \frac{1}{3+j(\frac{\omega}{\omega_0} - \frac{\omega_0}{\omega})}$$
, 幅频、相频特性曲线略

(2)
$$\omega_{C1} = 0.3\omega_0$$
, $\omega_{C2} = 3.3\omega_0$

4
$$u_c(t) = (12 - 6e^{-50t})V$$
, $t \ge 0$

零输入响应分量: $6e^{-50t}V$, 零状态响应分量: $(12-12e^{-50t})V$

5 (1)
$$u_2(t) = 2(e^{-1.5t} - e^{-3t})\varepsilon(t)V$$

(2)
$$u_2(t) = 0.21\cos(3t - 108.4^{\circ})V$$