

P1. V_s in phasor form \rightarrow 2
 Calculate Z_L \rightarrow Formula 1
 Answer 2

V_x \rightarrow Voltage division Rule 2
 Formula 2
 Calculations 2
 Answer 2

$V_x(t)$ \rightarrow 2

I \rightarrow ohm's Law 2
 Formula 2
 Calculations 2
 Answer 2

$I(t)$ \rightarrow 2

P2.

P2. $\underline{I_s}$ in phasor form - 2

$\underline{Z_c} \rightarrow$ formula - 1

calculations - 2

$\underline{I_x} \rightarrow$ Current division - 2

Formula - 2

Calculations - 2

Answers - 2

$\underline{I_x}(t) \rightarrow$

- 2

$\underline{V_z} \rightarrow$ Ohm's Law & Recognising
R & C are in parallel - 3

- 3

\rightarrow Calculations

- 2

\rightarrow Answer

$\underline{V_z}(t) \rightarrow$

2

P3

Each part \rightarrow 5 marks

V_{in} in phasor form \rightarrow (1)

$|H(j\omega)| \rightarrow$ (1)

$\phi \rightarrow$ (1)

V_{out} \rightarrow (1)

$V_{out}(t) \rightarrow$ (1)



Handwritten notes and labels on the graph, including 'Frequency' and 'Gain', and some illegible scribbles.

P4.

$$Z = j\omega L \rightarrow 1$$

$$Z_{eq} = \text{formula} \rightarrow 2$$

$$\text{Answer} \rightarrow 2$$

$$\text{Voltage division rule \& formula} \rightarrow 5$$

$$\text{substitutions \& calculations} \rightarrow 10$$

$$\text{Find Transfer function} \rightarrow 2$$

$$|H(\omega)| \text{ plot} \rightarrow 3$$