NET, IAS, State-SET (KSET, WBSET, MPSET, etc.), GATE, CUET, Olympiads etc.: Electronics MCQs (Practice_Test 3 of 13)

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1. Consider the parallel RLC circuit having R = 1, L = 1H, C = 1F. What type of response will the circuit produce?

    a. Under damped

    b. Over damped

    c. Critically damped

    d. none of these

    ○ Answer: a

2. How much inductance is needed to resonate at 5 kHz with a capacitance of 12nF?

    a. 2652 H

    b. 11.844 H

    c. 3.333 H

    d. 84.33 mH

    ○ Answer: d

3. The difference between the half power frequencies is called the

    a. quality factor

    b. resonant frequency

    c. bandwidth

    d. cutoff frequency

    ○ Answer: c

4. A parallel RLC circuit has C = 0.25F & L = 2H. The value of R which will create unity damping factor is

    a. 1

    b. 2

    c. 0.5

    d. 4

    ○ Answer: b

5. A zero of the transfer function H (s) = 10 (s + 1) / (s + 2) (s + 3) is at

    a. 10

    b. -1

    c. -2

    d. -3

    ◦ Answer: b

6. On the Bode magnitude plot, the slope of the pole $1/(5 + j?)2$ is

    a. 20 dB/decade

    b. 40 dB/decade

    c. -40 dB/decade

    d. -20 dB/decade

    ◦ Answer: c

7. On the bode phase plot, the slope of $1 + j10w-w \wedge \frac{2}{25} \wedge 2$ is

    a. 45° /decade

    b. 90° /decade

    c. 135° /decade

    d. 180° /decade

    ◦ Answer: d

8. In an electric circuit, the dual of resistance is

    a. conductance

    b. capacitance

    c. open circuit

    d. inductance

    ◦ Answer: a

9. In a series RLC circuit, which of these quality factors has the steepest curve at resonance?

    a. Q = 20

    b. Q = 12

    c. Q = 8

    d. Q = 4

• Answer: d

Frequently Asked Questions (FAQs)

• **how can we find resitance underdamped value when capacitance and inductance givenn**

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1 Answer

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1 Answer

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