1) In frequency response, the resonance frequency is basically a measure of _____ of response.

a. Speed
b. Distance
c. Angle
d. Curvature

Answer Explanation

ANSWER: Speed

Explanation:

No explanation is available for this question!

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2) If a system is said to have a damping ξ = 0.5532 with the natural frequency ω_n = 2 rad/sec, what will be the value of resonant frequency (ω_r)?

a. 1.2456 rad/s
b. 1.7352 rad/s
c. 2.3421 rad/s
d. 3.66 rad/s

Answer Explanation

ANSWER: 1.2456 rad/s

Explanation:

No explanation is available for this question!

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3) If the resonant peak is estimated to be '5', which among the following would be the correct value of damping?

a. ξ = 0.3
b. ξ = 1
c. ξ = 3.2
d. ξ = 5.55

Answer Explanation

ANSWER: ξ = 0.3

Explanation:

No explanation is available for this question!

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4) If the damping of the system becomes equal to zero, which condition of the resonant frequency is likely to occur?

a. $\omega_r = \omega_d$
b. $\omega_r > \omega_n$
c. $\omega_r < \omega_n$
d. $\omega_r = \omega_n$

Answer Explanation

ANSWER: $\omega_r = \omega_n$

Explanation:

No explanation is available for this question!

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5) At which condition of 'ξ', resonant peak does not exist and its maximum value is considered to be unity along with zero resonant frequency?

a. $0 < \xi < 0.707$
b. $\xi > 0.707$
c. $\xi = 0$
d. $\xi = 1$

Answer Explanation

ANSWER: $\xi > 0.707$

Explanation:

No explanation is available for this question!

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6) If 'ξ' approaches to zero, the peak resonance would _____

a. Also be zero
b. Be unity
c. Tend to infinity
d. Become equal to peak overshoot

Answer Explanation

ANSWER: Tend to infinity

Explanation:

No explanation is available for this question!

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7) How is the sinusoidal transfer function obtained from the system transfer function in frequency domain?

a. Replacement of 'jω' by 's'
b. Replacement of 's' by 'ω'
c. Replacement of 's' by 'jω'
d. Replacement of 'ω' by 's'

Answer Explanation

ANSWER: Replacement of 's' by 'jω'

Explanation:

No explanation is available for this question!

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8) Which plots in frequency domain represent the two separate plots of magnitude and phase against frequency in logarithmic value?

a. Polar plots
b. Bode plots
c. Nyquist plots
d. All of the above

Answer Explanation

ANSWER: Bode plots

Explanation:

No explanation is available for this question!

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9) If a linear system is subjected to an input r(t) = Asin(ωt), what output will be generated?

a. c(t) = B sin (ωt + Φ)
b. c(t) = B cos (ωt + Φ)
c. c(t) = B tan (ωt + Φ)
d. c(t) = B cot (ωt + Φ)

Answer Explanation

ANSWER: c(t) = B sin (ωt + Φ)

Explanation:

No explanation is available for this question!

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10) The magnitude & phase relationship between _____input and the steady state output is called as

frequency domain.

a. Step
b. Ramp
c. Sinusoidal
d. Parabolic

Answer Explanation

ANSWER: Sinusoidal

Explanation:

No explanation is available for this question!