



PHYSICS

BOOKS - SAI PHYSICS (TELUGU ENGLISH)

COMMUNICATION SYSTEM

Problems

1. A carrier wave of peak voltage 12 volts is used to transmit a signal. If the modulation

index is 75%, the peak voltage of the modulating signal is

A. 18 V

B. 22 V

C. 16 V

D. 28 V

Answer: option not available



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2. The maximum amplitude of an amplitude modulated wave is 16 V, while the minimum amplitude is 4 V. The modulation index is

A. 0.4

B. 0.5

C. 0.6

D. 4

Answer: c



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3. A TV transmitting antenna is 128 m tall. If the receiving antenna is at the ground level, the maximum distance between them for satisfactory communication in line of sight mode is (radius of the earth 6.4×10^6 m)

A. $64 \times \sqrt{10} km$

B. $\frac{128}{\sqrt{10}} km$

C. $128 \times \sqrt{10} km$

D. $\frac{64}{\sqrt{10}} km$

Answer: b



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4. A carrier wave of peak voltage 12 volts is used to transmit a signal. If the modulation index is 75%, the peak voltage of the modulating signal is

A. 18 V

B. 22 V

C. 16 V

D. 28 V

Answer: option not available



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5. The maximum amplitude of an amplitude modulated wave is 16 V, while the minimum amplitude is 4 V. The modulation index is

A. 0.4

B. 0.5

C. 0.6

D. 4

Answer: c



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6. A TV transmitting antenna is 128 m tall. If the receiving antenna is at the ground level, the maximum distance between them for satisfactory communication in line of sight mode is (radius of the earth 6.4×10^6 m)

A. $64 \times \sqrt{10} km$

B. $\frac{128}{\sqrt{10}} km$

C. $128 \times \sqrt{10}km$

D. $\frac{64}{\sqrt{10}}km$

Answer: b



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