Advanced Communication Systems

| Item Text | Option Text 1 | Option Text 2 | Option Text 3 | Option Text 4 |
|--|-------------------------|-----------------------|-----------------------|------------------------|
| To produce a standing wave in non-resonant antenna, the transmission line is terminated with a | Capacitor | Inductor | Diode | Resistor |
| In ionosphere, the D-layer ranges from | 90-145 km | 145-300 km | 50-90 km | 400 km |
| The shadow zones are formed in | Ground wave propagation | Sky wave propagation | Multiple sky wave | Space wave propagation |
| Which type of propagation is used in groundwave polarization? | Horizontal | Vertical | Both a and b | helical |
| In dipole arrays, the transmitter output is connected to the element is known as | Parasitic element | Director element | Driven element | round element |
| Which of the following is not a type of 'Horn' antenna? | Sectoral | Yagi-uda | Pyramidal | circular |
| Which antenna is used when circular polarization is required? | Horn antenna | Paraboloid | Discone | Helical |
| The output of the balanced modulator is | AF signal | RF carrier | DSBSC | FM |
| Which of the following is not a SSB transmitter method? | Filter method | Phase shift method | The third method | Armstrong method |
| The product detector is used for demodulation of a | SSB and AM signal | FM Signal | DBSC signal | PM signal |
| In indirect method of FM generation, the AF modulating signal is first applied to | Integrator | Phase modulator | Balanced modulator | filter |
| The synchronous detector is used to demodulate the | FM signal | AM signal | PM signal | PWM signal |
| In high level AM transmitter the adequate power level is achieved by using | Class A amplifier | Class B amplifier | Class C amplifier | Class AB amplifier |

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| The circuit which is used to boost the amplitude of higher frequency AF modulating signals is known as | PLL circuit | Pre-emphasis circuit | Phase discriminator | Converter |
|---|--------------------------|--------------------------|---------------------------------|---------------------------------|
| In TV transmitters, the audio signal is | Amplitude modulated | Phase modulated | Frequency modulated | Pulse amplitude modulated |
| In TV transmitters, the video signal is | Phase modulated | Frequency modulated | Pulse amplitude modulated | Amplitude modulated |
| The composite video signal does not contain | Audio signal | Video signal | Vertical blanking | Horizontal blanking |
| The vestigial side band filter passes | USB and some part of LSB | LSB and some part of USB | Both LSB and USB | LSB only |
| In colour TV transmitters, the colour information is carried through | Y signal | I & Q signal | I & Y signal | l signal |
| Which of the following parameter of an object is detected by RADAR? | Presence | Position | Speed | All of these |
| If some frequency is targeted on some object, the frequency changes for an observer if that target moves towards or away from the target is known as | Zeeman | Photoelectric | Doppler effect | Raman effect |