

**A-1142**

Total Pages : 3

Roll No. ....

**BCA (N)-123**

**Setting up Wireless Network**

Examination February, 2026

Time : 2:00 Hrs.

Max. Marks : 70

*Note :-* This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. *Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

**Section-A**

**Long Answer Type Questions** (2×19=38)

*Note :-* Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

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( 1 )

P.T.O.

1. Explain telecommunications basics. Discuss modulation, multiplexing, and duplexing techniques used in wireless communication systems.
2. Describe the radio spectrum and explain how it is adjudicated and regulated. Discuss spectrum scarcity, spectrum hoarding, and IEEE 802.22.
3. Explain antennas and transmission lines in detail. Discuss cables, waveguides, connectors, amplifiers, and antenna measurements.
4. Describe the Wi-Fi family. Explain IEEE 802 standards, 802.11 deployment planning, and the role of 802.22 in developing countries.
5. Explain maintenance and troubleshooting of wireless networks. Discuss common network problems, troubleshooting techniques, and trouble tracking.

### **Section–B**

#### **Short Answer Type Questions (4×8=32)**

**Note** :- Section ‘B’ contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. Define bandwidth, frequency, and channels.
2. Explain licensing and regulation in wireless communication.
3. Write a short note on cooperative communications.
4. Explain hardware selection and access point configuration.
5. What are the requirements for a long-distance outdoor wireless link ?
6. Explain photovoltaic system components used in off-grid power.
7. Describe network monitoring, establishing a baseline, and CPU/RAM monitoring.
8. Write a short note on mission statement and cost analysis for wireless projects.

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