



# CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

17MT551

## Fifth Semester B.E. Degree Examination, July/August 2021 Wireless Networks and Communication

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions.*

- 1 a. Discuss wireless communication problems encountered in wireless network. (10 Marks)  
b. Explain how wireless networks are classified on basis of range and application. (10 Marks)
- 2 a. Explain wireless switching technologies. (06 Marks)  
b. For a given communication system, transmitter operates at a frequency of 850MHz with a power of 125m watt. This transmitter communicates with the receiver having the received power of  $1\mu\text{w}$ . What is the distance between the transmitter and receiver? (04 Marks)  
c. Give comparison of important standards used for wireless communication in wireless network. (10 Marks)
- 3 a. Explain network architecture and components in WBAN. (10 Marks)  
b. Discuss WBAN routing protocols in network layer. (10 Marks)
- 4 a. Explain with neat diagram WPAN architecture and its topologies. (10 Marks)  
b. Explain with neat diagram Zigbee protocol stack. (10 Marks)
- 5 a. Explain quadrature phase shift keying modulation and demodulation technique. (10 Marks)  
b. Explain OFDM modulation and demodulation technique. (10 Marks)
- 6 a. Explain diversity technique in wireless communication. (10 Marks)  
b. Explain: i) Ultra wide band radio technology ii) Speech coding. (10 Marks)
- 7 a. Explain WLAN architecture and network components. (10 Marks)  
b. Explain architecture and network components of WMAN. (10 Marks)
- 8 a. With neat diagram, explain GSM network architecture. (10 Marks)  
b. Explain CDPD network architecture, key features, functions and limitations. (10 Marks)
- 9 a. Discuss quantitative and qualitative features of wireless adhoc network. (10 Marks)  
b. Discuss routing protocols in MANET. (10 Marks)
- 10 a. Explain with diagram Wireless Mesh Network architecture (WMN). (10 Marks)  
b. Explain the unique characteristics of VANET<sup>s</sup>. (10 Marks)

\*\*\*\*\*

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg,  $42+8=50$ , will be treated as malpractice.