



B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2024

(Regulation 2018)

Sixth Semester

COMPUTER SCIENCE AND ENGINEERING

U18CST6002: Wireless Networks and Mobile Systems

COURSE OUTCOMES

- CO1:** Compare various wireless transmission and media access techniques.
CO2: Identify and interpret fields in GSM and GPRS frame structures.
CO3: Analyse physical, link and network layer characteristics of wireless networks.
CO4: Compare Mechanisms for improving TCP Performance over Wireless Links.
CO5: Understand 4G Features and technologies.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

- | | | |
|---|-----|-------------------|
| 1. Identify the various multiple access schemes used in wireless communication. | CO1 | [K ₃] |
| 2. List out the Applications of Wireless LAN. | CO1 | [K ₃] |
| 3. Outline the services offered by GSM. | CO1 | [K ₃] |
| 4. What are the advantages of GPRS? | CO2 | [K ₃] |
| 5. Differentiate functionalities of foreign agent and home agent. | CO3 | [K ₄] |
| 6. What is Route Optimization? | CO3 | [K ₃] |
| 7. Classify the services of Transport Layer. | CO4 | [K ₄] |
| 8. Compare WDP and WTP. | CO4 | [K ₄] |
| 9. What are the features of 4G LTE? | CO5 | [K ₂] |
| 10. Categorize the internetworking schemes. | CO5 | [K ₄] |

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

(Answer not more than 400 words)

- | | | | |
|---|---|-----|-------------------|
| 11. a) Compare and Contrast the TDMA, FDMA and CDMA Techniques. | 8 | CO1 | [K ₃] |
| b) Explain in detail the evolution of Wireless communication. | 8 | CO1 | [K ₃] |
| 12. a) Describe GSM Architecture with proper Diagram. | 6 | CO2 | [K ₃] |

	b)	Discuss the following (i) Handover (ii) DAB & DVB	10	CO2	[K ₃]
13.	a)	Analyze system architecture of IEEE 802.11 with a suitable diagram.	8	CO3	[K ₃]
	b)	Classify the features on i) Wi-Fi ii) WiMAX	8	CO3	[K ₃]
14.	a)	Illustrate packet delivery mechanism in Mobile IP network with neat diagram.	8	CO3	[K ₃]
	b)	Compare and Contrast on Table Driven Routing and On – Demand .	8	CO3	[K ₃]
15.	a)	Discuss in detail about various improvements in TCP performance with diagram.	6	CO4	[K ₃]
	b)	Explain the following (i) WAE & WML (ii) WTA Architecture	10	CO4	[K ₃]
16.	a)	Explain in detail about 4G Features and Challenges.	8	CO5	[K ₂]
	b)	Relate the Internetworking Architectures of WLAN and GPRS	8	CO5	[K ₂]
