Register Number:……..

KUMARAGURU
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B.E DEGREE EXAMINATIONS: APRIL / MAY 2023

(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 [K3]

CO2: Identify and Interpret fields in GSM and GPRS frame structures. [K3]

CO3: Analyze physical, link, and network layer characteristics of wireless networks [K4]

CO4: Compare Mechanisms for Improving TCP Performance over Wireless Links [K3]

CO5: Understand 4G features and technologies [K2]

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	Define Hidden Terminal Problem. How can it be resolved?	CO1	[K_2]
2.	What are the different service domains of GSM?	CO2	[K_2]
3.	List various phases of HIPERLAN MAC management.	CO1	[K_2]
4.	Compare Wi-Fi and Wi-Max technologies.	CO2	[K_2]
5.	Compare table driven and on demand routing.	CO3	[K_2]
6.	List the significance of power aware routing.	CO3	[K_2]
7.	State the use of WSP protocol.	CO5	[K_2]
8.	State the use of WDP protocol.	CO5	[K_2]
9.	List various performance metrics used to test the performance of a network.	CO4	[K_3]
10.	List various simulators used to simulate and test performance of a network.	CO4	[K_2]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Illustrate the system architecture of GSM. And list the functions of each of the components.	8	CO2	[K_2]
	b)	Summarize the system architecture of GPRS with functionality of each of the components involved	8	CO2	[K_2]

12.	a)	Compare various media access methods used in wireless transmission	8	CO1	[K_3]
	b)	Enumerate the working of CDMA protocol with an example.	8	CO1	[K_3]
13.	a)	How is a packet delivered to and from a mobile node using mobile IP	8	CO3	[K_3]
	b)	Summarize the architecture of Bluetooth with its handling of energy and mobility requirements.	8	CO3	[K_2]
14.	a)	Compare classical TCP enhancements for mobile networks.	8	CO4	[K_3]
	b)	Illustrate the steps involved in address assignment using DHCP protocol.	8	CO4	[K_2]
15.	a)	Summarize the WAP protocol stack with its features.	8	CO4	[K_2]
	b)	Explain the features of WTA with its architecture.	8	CO4	[K_2]
16.	a)	Illustrate and summarize the elements involved in 4G LTE architecture with its major mobility tasks.	8	CO5	[K_2]
	b)	Compare loosely coupled and tightly coupled mechanisms to integrate WLAN with cellular systems.	8	CO5	[K_2]

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