



# Shree Sathyam College of Engineering and Technology

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.  
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## Internal Assessment Test I

DEGREE: B.E	YEAR & SEMESTER: III/V
BRANCH: ECE	REGULATION: 2021
SUBJECT Code and NAME: EC3501/ wireless communication	DATE & SESSION: 25.09.2024 & AN
TIME: 2 Hrs 15 Minutes	Max. Marks: 60

### Answer ALL Questions

#### PART A (5x2=10 marks)

		CO	BL	PO	PI
1.	What is multiple access technique?	CO1	BL1	PO1	1.3.1
2.	Define frequency reuse.	CO1	BL4	PO1	1.3.1
3.	What is small scale fading?	CO2	BL1	PO1	1.3.1
4.	Give the friss free space equation.	CO2	BL1	PO1	1.3.1
5.	List the advantages of digital modulation techniques.	CO3	BL2	PO1	1.3.1

#### PART A (5x10=50 marks)

		CO	BL	PO	PI
6.	a)i) Discuss in detail about frequency reuse.	CO1	BL2	PO1	1.3.1
	a(ii) Explain the concept of cellular topology and fundamentals.				
<b>OR</b>					
	b) Explain the principle of cellular networks and various types of handoff techniques.	CO1	BL2	PO1	1.3.1
7.	a) Explain channel assignment in detail.	CO1	BL2	PO1	1.3.1
	<b>OR</b>				
	b) Write short notes on (i) Trunking (ii) Grade of service of cell system	CO1	BL2	PO1	1.3.1
8.	a) Describe briefly about free space propagation model.	CO2	BL2	PO1	1.3.1
	<b>OR</b>				
	b) Explain in brief about the three propagation mechanism which have impact on propagation in mobile environment.	CO2	BL2	PO1	1.3.1
9.	a) Define Brewster angle.	CO2	BL2	PO1	1.3.1
	<b>OR</b>				
	b) Explain in detail about Types of small scale fading.	CO2	BL2	PO1	1.3.1
10.	a) Explain the time dispersion parameters of mobile multipath channels.	CO3	BL2	PO1	1.3.1
	<b>OR</b>				
	b) Discuss in detail the demodulation techniques for Minimum shift keying	CO3	BL2	PO1	1.3.1

CO Number	Weightage (Marks)	Weightage in %
CO.1	44	40
CO.2	44	40
CO.3	22	20

*S. dg*

Faculty In-Charge

HoD

Principal





**Internal Assessment Test II**

DEGREE: B.E	YEAR & SEMESTER: III / V
BRANCH: ECE	REGULATION: 2021
SUBJECT Code and NAME: EC3501/ wireless communication	DATE & SESSION: 14.11.2024 & AN
TIME: 2 Hrs 15 Minutes	Max. Marks: 60

**Answer ALL Questions**

**PART A (5x2=10 marks)**

		CO	BL	PO	PI
1.	Define coherence time .In what way does this parameters decide the behavior of wireless channel?	CO3	BL1	PO1	1.4.1
2.	List the features of offset-QPSK.	CO4	BL4	PO1	1.4.1
3.	What do you mean by micro and macro diversity?	CO4	BL1	PO1	1.4.1
4.	What is multiple access technique?	CO5	BL1	PO1	1.4.1
5.	State advantage of CDMA over FDMA.	CO5	BL2	PO1	1.4.1

**PART A (5x10=50 marks)**

		CO	BL	PO	PI
6.	a)i) Derive the expression for MSK as a special type of FSK signal. Explain in detail Gaussian minimum shift keying transmission and reception with necessary diagrams.	CO3	BL2	PO1	1.4.1
	a)ii) <b>OR</b>				
	b) Analysis various diversity techniques used in wireless communication.	CO3	BL2	PO1	1.4.1
7.	a) Brief about the principle of TDMA.	CO4	BL2	PO1	1.4.1
	<b>OR</b>				
	b) Describe the principle of CDMA.	CO4	BL2	PO1	1.4.1
8.	a) Explain in detail about space division multiple access.	CO4	BL2	PO1	1.4.1
	<b>OR</b>				
	b) Explain in detail about capacity of cellular systems.	CO5	BL2	PO1	1.4.1
9.	a) Illustrate the PSTN with relevant architecture diagram.	CO5	BL2	PO1	1.4.1
	<b>OR</b>				
	b) Discuss in detail about 3 generation wireless networks.	CO5	BL2	PO1	1.4.1
10.	a) Explain the mechanism of traffic routing in wireless networks with routing services.	CO5	BL2	PO1	1.4.1
	<b>OR</b>				
	b) Write short notes on network database with distributed database for mobility management.	CO5	BL2	PO1	1.4.1

CO Number	Weightage (Marks)	Weightage in %
CO.3	22	20
CO.4	44	40
CO.5	44	40

*S. D. Jeyaraj*  
 Faculty In-Charge

*R. Anand*  
 HoD 11/11/2024

*S. Sathya*  
 Principal

