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# B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

## July 2023 Semester End Main Examinations

**Programme: B.E.**

**Semester: VI**

**Branch: Electronics and Communication Engineering**

**Duration: 3 hrs.**

**Course Code: 16EC6DCCCN**

**Max Marks: 100**

**Course: Computer Communication Networks**

**Date: 05.07.2023**

**Instructions:** 1. Answer any FIVE full questions, choosing one full question from each unit.  
2. Missing data, if any, may be suitably assumed.

<b>UNIT - I</b>			<i>CO</i>	<i>PO</i>	<b>Marks</b>
1	a)	Define a Computer Network. Describe the network criteria, its physical structures and categories of networks.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
	b)	Mention the layers of an OSI-ISO model and explain briefly about the layers and the protocols in each layer.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
<b>UNIT - II</b>					
2	a)	Compare Wired and Wireless transmission media, justify the significance of twisting in twisted pair cable.	<i>CO2</i>	<i>PO2</i>	<b>10</b>
	b)	Describe the different switching techniques in detail.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
<b>UNIT - III</b>					
3	a)	With the help of a diagram describe the encoder and decoder for simple parity-check code.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
	b)	Explain the Stop and Wait ARQ in detail.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
<b>OR</b>					
4	a)	Explain Go Back N ARQ in detail.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
	b)	Illustrate Bit and Byte Stuffing and destuffing in detail.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
<b>UNIT - IV</b>					
5	a)	Describe the procedure for pure ALOHA protocol in detail.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
	b)	Categorise the standard Ethernet and also summarise the Standard Ethernet implementations.	<i>CO2</i>	<i>PO2</i>	<b>10</b>
<b>OR</b>					

**Important Note:** Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

	6	a)	Describe the CSMA/CA with a flow diagram. List out the advantages over other techniques.	<i>CO2</i>	<i>PO2</i>	<b>10</b>
		b)	Categorise the Fast Ethernet and also summarise the Standard Ethernet implementations.	<i>CO2</i>	<i>PO2</i>	<b>10</b>
			<b>UNIT - V</b>			
	7	a)	Explain the five categories of connecting devices in a network in detail.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
		b)	Describe the ATM and Frame Relay in detail.	<i>CO1</i>	<i>PO1</i>	<b>10</b>

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B.M.S.C.E. - EVEN SEM 2022-23