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

Autonomous Institute Affiliated to VTU

## August 2024 Semester End Main Examinations

**Programme: B.E.**

**Branch: Medical Electronics Engineering**

**Course Code: 23MD4PCDCH**

**Course: Data Communication in Healthcare**

**Semester: IV**

**Duration: 3 hrs.**

**Max Marks: 100**

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

<b>MODULE - I</b>			<b>CO</b>	<b>PO</b>	<b>Marks</b>
1	a)	Identify and explain the various network criteria.	<i>CO1</i>	<i>PO1</i>	<b>06</b>
	b)	Briefly discuss the functions of various layers of the OSI model.	<i>CO1</i>	<i>PO1</i>	<b>14</b>
<b>MODULE - II</b>					
2	a)	Summarize the unicast routing protocol with a neat figure.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
	b)	Enumerate the multicast applications.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
<b>OR</b>					
3	a)	Summarize the various categories of open loop congestion control.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
	b)	Elaborate on the role of browser and server.	<i>CO1</i>	<i>PO1</i>	<b>10</b>
<b>MODULE - III</b>					
4	a)	Specify the role of each field in an 802.3 MAC frame.	<i>CO2</i>	<i>PO1</i>	<b>10</b>
	b)	Explain the CSMA/CA as used in wireless LANs with a neat flowchart.	<i>CO2</i>	<i>PO1</i>	<b>10</b>
<b>MODULE - IV</b>					
5	a)	Identify the central systems in the architecture of GSM and explain it briefly.	<i>CO3</i>	<i>PO1</i>	<b>10</b>
	b)	Mention and explain the various fields that uses telemedicine.	<i>CO3</i>	<i>PO1</i>	<b>10</b>
<b>OR</b>					
6	a)	Illustrate the transmission of analog physiological signals over telephonic line.	<i>CO3</i>	<i>PO1</i>	<b>10</b>
	b)	Summarize the advantages and disadvantages of CDMA.	<i>CO3</i>	<i>PO1</i>	<b>10</b>
<b>MODULE - V</b>					
7	a)	Enumerates the challenges in healthcare mobile app development.	<i>CO4</i>	<i>PO1</i>	<b>06</b>
	b)	Discuss the different types of mobile healthcare apps.	<i>CO4</i>	<i>PO1</i>	<b>08</b>
	c)	Mention the future trends in healthcare mobile app development.	<i>CO4</i>	<i>PO1</i>	<b>06</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.

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