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**Presidency University**

**Bengaluru**

**School Of Computer Science and Engineering & Information Science**

**Summer term End-Term Examinations, August 2024**

**Date**: 05-08-2024

**Time**: 1.00pm – 4.00 p.m.

**Max Marks**: 100

**Weightage**: 50%

**Odd Semester**: 2023 - 24

**Course Code**: CSE2059

**Course Name**: Mobile Networking

**Department:** CSE

**Instructions:**

1. *Read the all questions carefully and answer accordingly.*
2. *Do not write any matter on the question paper other than roll number.*

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| **Q.No** | **Questions** | **Marks** | **CO** | **RBT** |
| 1 | 1. I*nterpret* the various Characteristics of Ad Hoc Networks. | 4 | CO1 | L1 |
| 1. Differentiate the Ad hoc OnDemand Distance Vector(AODV) Routing with Dynamic Source Routing (DSR) Algorithms | 6 | CO1 | L2 |
| 1. Explain the steps for creating the Ad Hoc Wireless Network. | 10 | CO1 | L3 |
| OR | | | | |
| 2 | a. List the main types of routing protocol in MANET. | 4 | CO1 | L1 |
| b. Discuss about the technical challenges behind MANETs. | 6 | CO1 | L2 |
| c. Infer the Hybrid routing protocols for MANETs. | 10 | CO1 | L3 |

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| 3 | 1. Draw the Uplink Subframe structure for broadband network and define it. | 4 | CO2 | L1 |
| 1. Explain about 3G CDMA Standard with a real time application. | 6 | CO2 | L2 |
| 1. Experiment with the data Access technologides LIKE LMDS, TDMA, FDMA, CDMA and justify your conclusion. | 10 | CO2 | L3 |

OR

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| 4 | 1. State the activities in managing wireless networks. | 4 | CO2 | L1 |
| 1. Explain the working of Fixed Wireless Broadband Networks with an example. | 6 | CO2 | L2 |
| 1. Compare and contrast the Testing in Wireless Satellite Networks and Fixed Wireless Broadband Networks. | 10 | CO2 | L3 |

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| 5 | 1. List the uses of Fiber Optic and HFC | 4 | CO3 | L1 |
| 1. Outline the working principle of Wireless Connections through its Protocol Spec. | 6 | CO3 | L2 |
| 1. Demonstrate MMD Architecture with a neat diagram. | 10 | CO3 | L3 |

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| 6 | 1. Outline the infrared communication working principles. | 4 | CO3 | L1 |
| 1. Explain the benefits and application of Satellites in wireless communications with necessary examples and diagrams. | 6 | CO3 | L2 |
| 1. Explain the Operations in Managing Wireless Broadband network with an example. | 10 | CO3 | L3 |

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| 7 | 1. Relate Infrastructure-based and Infrastructure-less Wireless Networks. | 4 | CO4 | L1 |
| 1. Why to invest in 5G and how 5G helps to provide today’s business solution? | 6 | CO4 | L2 |
| 1. Utilize a wireless network with 5G Technologies and explain it with a block diagram. | 10 | CO4 | L3 |

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| 8 | 1. State the Fundamentals of MAC Protocols for Wireless Sensor Networks | 4 | CO4 | L1 |
| 1. Explain the design requirements for WSNs & their protocols . | 6 | CO4 | L2 |
| 1. Select any wireless sensor network technique and compare it with wired network. Which is best? Justify your point. | 10 | CO4 | L3 |

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| 9 | 1. List the challenges in designing of routing protocols for wireless networks | 4 | CO1 | L1 |
| 1. Interpret the LMDS Systems management through an Application. | 6 | CO1 | L2 |
| 1. Built a Wireless ATM with suitable scenario. | 10 | CO1 | L3 |

OR

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| 10 | 1. Elaborate the key scenarios of Multiple Stages of 5G Development. | 4 | CO2 | L1 |
| 1. Explain the fundamentals of MAC Protocols for Wireless Sensor Network. | 6 | CO2 | L2 |
| 1. Sketch the Management tools of LMDS Systems with a neat diagram. | 10 | CO2 | L3 |