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Bengaluru

Mid Term Examinations - October 2026

Date: 06/10/2026 **Time:** 02:00 PM - 03:30 PM

Course Code: CSN2502 **Course Name:** Ad Hoc Networks

Semester: Seventh Semester **Max. Marks:** 50 **Weightage:** 50%

CO - Levels	CO1	CO2
Marks	44	46

PART A: Answer Following Questions. 10 M

Q.N.	Questions	M	CO	BT
1	**Define** the dynamic topology of an Ad Hoc Network and **state** one challenge caused by node mobility.	2	CO1	BT1
2	**List** any two civilian or commercial applications of Ad Hoc Networks.	2	CO1	BT1
3	**Explain** the purpose of sequence numbers in DSDV.	2	CO2	BT2
4	**Define** a cluster head and **state** one responsibility performed by it in an Ad Hoc Network.	2	CO2	BT2
5	**List** any two factors that can be considered for cluster-head selection.	2	CO2	BT1

PART B : Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
6	**Explain** the definition, features and types of Ad Hoc Networks. **Illustrate** the role of multi-hop communication in an infrastructure-less network.	10	CO1	BT2
7	**Explain** proactive and reactive routing protocols. **Discuss** the advantages and limitations of each approach in Ad Hoc Networks.	10	CO1	BT2

PART C: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
8	**Analyze** the characteristics and challenges of Ad Hoc Networks with respect to bandwidth constraints, power management, routing and security.	10	CO1	BT4
9	**Compare and contrast** the characteristics, advantages and limitations of proactive and reactive routing protocols. **Recommend** a suitable approach for a highly dynamic Ad Hoc Network and justify your choice.	10	CO1	BT5

PART D: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
10	A mobile Ad Hoc Network contains several nodes that frequently change their positions. **Apply** the working principles of DSDV to explain how routing information can be maintained in this network.	10	CO2	BT3
11	**Analyze** the properties of DSDV and **differentiate** its advantages and limitations in comparison with the requirements of a mobile Ad Hoc Network.	10	CO2	BT4

PART E: Answer Any 1 Following Questions. 10 M

PTO (Please Turn Over)

Q.N.	Questions	M	CO	BT
12	**Analyze** the process of cluster formation and cluster-head selection. **Illustrate** how clustering can improve routing efficiency in an Ad Hoc Network.	10	CO2	BT4
13	A large mobile Ad Hoc Network needs efficient communication between nodes while minimizing routing overhead. **Evaluate** the use of backbone formation and transmission management for this network. **Justify** how they can improve routing efficiency.	10	CO2	BT5