

University of Mumbai
 Program: BE (Computer Engineering) (Choice Based Credit Grading System)
 Curriculum Scheme: Rev2016
 Examination: BE Semester VIII

Course Code: 52755
 Time: 2 hour 30 minutes

Course Name: Adhoc Wireless Networks (DLOC)
 Max. Marks: 80

Q1. (20 Marks))	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Military vehicles on battlefield with no existing infrastructure will deploy ----- --
Option A:	LAN
Option B:	Wi-Fi
Option C:	Cell Network
Option D:	MANET
2.	Each channel in Bluetooth layer is ----
Option A:	1 MHz
Option B:	2 MHz
Option C:	3 MHz
Option D:	4 MHz
3.	Wi-Max provides -----
Option A:	VoIP
Option B:	IPTV
Option C:	Both VoIP and IPTV
Option D:	No IPTV services
4.	Which of the following protocols uses both TCP and UDP
Option A:	SMTP
Option B:	Telnet
Option C:	FTP
Option D:	DNS
5.	In shortest path routing algorithm, the path length is measured based on
Option A:	Time Delay
Option B:	Number of hops
Option C:	Size of the Routers
Option D:	Routing table
6.	DSDV is a table-driven routing scheme for ad hoc mobile networks based on
Option A:	The Bellman-Ford algorithm.
Option B:	Dijkstra Algorithm
Option C:	Path vector
Option D:	Link state

7.	What is the type of network in which the topology change from time to time?
Option A:	Wi-Fi
Option B:	Cell network
Option C:	LAN
Option D:	MANET
8.	The layer who protecting the ad hoc routing and forwarding protocols?
Option A:	Transport Layer
Option B:	Application Layer
Option C:	Link Layer
Option D:	Network Layer
9.	Which of the following is routing protocol attack?
Option A:	Session hijacking
Option B:	Rushing attack
Option C:	Repudiation
Option D:	Wormhole
10.	Routing Protocol in VANET is :
Option A:	Topology Based Routing Protocol
Option B:	Interior Gateway Protocol
Option C:	Distance Vector Protocol
Option D:	Link State Protocol

Q2. (20 Marks)	Solve any four out of six	5 marks each
A	What are the Characteristics of Wireless channel. Explain in short..	
B	What are the main issues that need to be addressed while designing MAC protocol for adhoc networks.	
C	How Route maintenance is carried out in AODV protocol? give advantages and disadvantages of AODV .	
D	What are the characteristics of an Ideal Routing Protocols for Adhoc Wireless Network?	
E	Write challenges faced in providing QoS (Quality of Service).	
F	Write short note on: Delay Tolerant Network.	

Q.3 (20 Marks)	Solve any two questions out of three	10 marks each
A	Explain issues in designing MAC protocol in adhoc wireless protocol.	
B	What is On-demand (Reactive) routing protocol. Describe the temporarily ordered routing algorithm (TORA) for adhoc networks along with its pros and cons.	
C	Briefly discuss the network security requirements for adhoc networks.	

Q4. (20 Marks)	
A	Solve any two 5 marks each
i.	Give the difference between cellular networks and adhoc wireless networks.
ii.	Explain components of WAVE (Wireless Access for the Vehicular Environment).
iii.	Explain in short working of ZRP.
B	Solve any one 10 marks each
i.	Explain in detail the receiver initiated MAC protocol (MARCH). Media Access with Reduced Handshake Protocol (MARCH)
ii.	Briefly explain the state transition diagram for adhoc TCP sender (ATCP).