

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2018

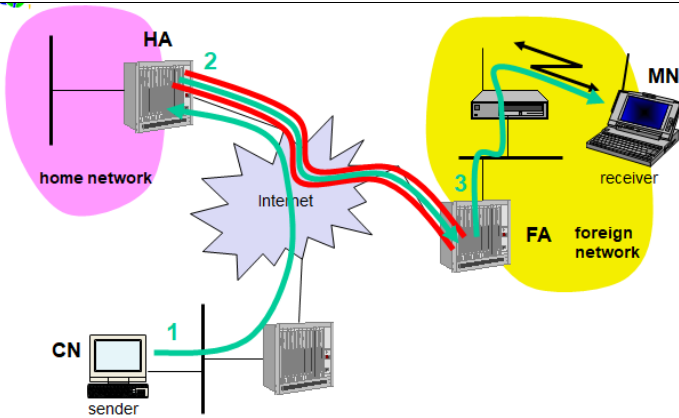
Course: Mobile Computing [CSEG 402]	Semester: VII
Programme: B. Tech CS+Cyberlaw	
Time: 03 hrs.	Max. Marks: 100
Instructions:	

SECTION A

S. No.	Question	Marks	CO
Q 1	In short recall history of mobile communication.	5	CO1
Q 2	Explain any two routing protocols.	5	CO1 CO2
Q 3	Differentiate between IPV4 and IPV6.	5	CO1 CO2
Q4	Explain role of mobile communication in location based services.	5	CO4


SECTION B

Q 5	Justify the statement “The way database is accessed in traditional networks is not the same in mobile communication networks”.	10	CO5
Q 6	Discuss soft and hard hand over. Also elaborate the step by step procedure of handover.	10	CO3
Q 7	Citing Route Information Protocol (RIP) and Dynamic Source Routing (DSR) as examples, differentiate between traditional routing protocols and routing in Mobile Ad-Hoc Networks. <p style="text-align: center;">OR</p> Elaborate the following encapsulation techniques, applicable in mobile computing paradigm. <ol style="list-style-type: none"> 1. IP-in-IP Encapsulation 2. Minimal Encapsulation 3. Generic Routing Encapsulation 	10	CO3, CO5
Q 8	Examine the following figure and detail each respective aspect.	10	CO3



SECTION-C

Q 9	Defend TCP is unfit for mobile communication networks. Conclude your discussion by elaborating the various TCP improvements.	20	CO5
Q 10	<p style="text-align: center;">OR</p> <p>Summarize the following:</p> <ol style="list-style-type: none"> 1. Power aware and context aware computing. 2. Properties of MANET 3. GSM 4. Tunneling in Mobile IP 	20	CO2, CO3

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SECTION A			
S. No.		Marks	CO
Q 1	Explain multiplexing and how it is useful in communication networks.	5	CO1
Q 2	Highlight the limitations of mobile computing.	5	CO1
Q 3	Discuss slotted aloha.	5	CO1 CO2
Q4	In short explain Wireless Application Protocol (WAP).	5	CO2 CO3
SECTION B			
Q 5	Explain Mobile IP operation.	10	CO3 CO4
Q 6	Explain hoarding and elaborate pull based and push based mechanism.	10	CO3
Q 7	Why in mobile communication context awareness and power awareness is required.	10	CO1 CO2
Q 8	Explain encapsulation in Mobile IP. OR List down the various digital modulation techniques.	10	CO3 CO4
SECTION-C			
Q 9	Elaborate the various improvements in TCP to support mobile communication network.	20	CO5
Q 10	Explain the various routing algorithms in MANET. OR	20	CO2 CO4

	<p>Elaborate the various database issues in context to mobile computing and also discuss the following.</p> <ol style="list-style-type: none">1. Database architecture (a) Two -Tier and (b) N-Tier Architecture2. Caching Mechanisms3. Advantages and Disadvantages of hoarding.		CO5
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