



INSTITUTE OF AERONAUTICAL ENGINEERING

(AUTONOMOUS)

Dundigal, Hyderabad - 500 043

COMPUTER SCIENCE AND ENGINEERING

ASSIGNMENT QUESTIONS

Course Name	MOBILE COMPUTING
Course Code	A70536 – R15
Class	IV B. Tech I Semester
Branch	Computer Science and Engineering
Year	2018-19
Course Faculty	Mr. C Raghavendra, Assistant Professor, CSE Ms. K Mayuri, Assistant Professor, CSE Ms. K Radhika, Associate Professor, CSE Ms. M Geetha Yadav, Assistant Professor, CSE

OBJECTIVES

To meet the challenge of ensuring excellence in engineering education, the issue of quality needs to be addressed, debated and taken forward in a systematic manner. Accreditation is the principal means of quality assurance in higher education. The major emphasis of accreditation process is to measure the outcomes of the program that is being accredited.

In line with this, Faculty of Institute of Aeronautical Engineering, Hyderabad has taken a lead in incorporating philosophy of outcome based education in the process of problem solving and career development. So, all students of the institute should understand the depth and approach of course to be taught through this question bank, which will enhance learner's learning process.

S. No	Question	Blooms Taxonomy Level	Course Outcome
ASSIGNMENT – I I			
UNIT - 1			
1	Explain the system architecture of GSM.	Understand	2
2	Discuss the mobile, bearer, supplementary and teleservices of GSM.	Understand	2
3	Define the following i. Fixed and wired ii. Mobile and wired iii. Fixed and wireless iv. Mobile and wireless	Remember	1
4	Define mobile computing. Discuss the two kinds of mobility.	Remember	2
5	Explain the different mobile applications.	Understand	1
6	Discuss the types of handover and services available in GSM.	Understand	3
7	Explain the GPRS architecture reference model.	Understand	2
8	Describe DECT system functions, architecture and protocols.	Remember	3
9	Describe various protocols used in WLL and explain the services.	Remember	2
10	Explain about High-Speed circuit switched data.	Understand	3
UNIT – II			
1	Explain about MAC Layer.	Understand	5
2	Distinguish between classical and slotted aloha multiple access techniques.	Understand	5
3	Compare and contrast SDMA, TDMA, FDMA and CDMA techniques.	Understand	5
4	Explain the following problems of wireless transmission. i. Exposed terminal and hidden terminal ii. Near and far terminals	Understand	4

5	Describe about TDMA .How does the near/far effect influence TDMA systems.	Remember	5
6	Discuss in detail about MACA.	Understand	4
7	Explain about CDMA systems.	Understand	5
8	Compare CSMA, DAMA, ISMA and PRMA techniques.	Understand	5
9	Discuss briefly about SAMA.	Understand	5
10	Define multiplexing and explain about the different kinds of multiplexing. Techniques.	Remember	4
UNIT - III			
1	Discuss how traditional TCP cannot be used in mobile network.	Understand	6
2	Explain the indirect TCP.	Remember	6
3	Distinguish between snooping TCP and Mobile TCP.	Understand	4
4	Compare different TCP enhancements.	Understand	6
5	Explain in detail classical enhancements to TCP for mobility.	Remember	3
ASSIGNMENT - II			
6	Explain about mobile TCP.	Understand	6
7	Discuss congestion control in traditional TCP and explain the concepts of slow start and congestion threshold.	Understand	5
8	Explain the working of transaction-oriented TCP.	Understand	6
9	Discuss in detail about the selective retransmission technique in TCP.	Understand	6
10	Explain the mechanism of fast retransmit/fast recovery in TCP and transmission/time-out freezing in TCP.	Understand	5
UNIT - IV			
1	Explain the communication asymmetry that arises in data-dissemination.	Understand	7
2	Distinguish between push-based and pull-based mechanism of data dissemination.	Understand	8
3	Explain about Selective tuning and indexing techniques in mobile computing.	Understand	7
4	Explain in detail about the hybrid push-pull based data delivery mechanism.	Understand	6
5	Discuss briefly about Directory method and Hash-based methods of selective tuning and indexing.	Understand	8
6	Define indexing and Explain various types of indexing techniques.	Remember	8
7	Discuss temporal addressing, broadcast addressing and use of header selective tuning indexing techniques.	Understand	9
8	Explain the following i .index-based method Ii .Distributed index-based method Iii .Flexible indexing method	Understand	7
9	Explain about Data Dissemination Broadcast Models.	Understand	7
10	Discuss about Data synchronization.	Understand	2
UNIT - V			
1	Discuss briefly about MANETs.	Understand	9
2	Explain about cellular networks and adhoc wireless networks.	Understand	9
3	Discuss the challenges /issues faced by mobile ad hoc networks.	Understand	7
4	List and explain the properties of mobile ad hoc networks.	Remember	5
5	Explain routing algorithms based on the variations in network topology.	Understand	5
6	Explain about different categories of routing protocols.	Understand	3
7	Define the following i. AODV routing ii. DSR iii. TORA iv. ABR.	Remember	5
8	Describe ZRP hybrid routing protocols in MANETs.	Remember	6
9	Discuss the security issues in MANET.	Understand	7
10	Explain about Mobile Agents and Service Discovery.	Understand	9

Prepared by:

Mr. C Raghavendra, Assistant Professor, CSE

HOD, CSE