BRANCH	CSE
SESSION	

SAGAR INSTITUTE OF SCIENCE & TECHNOLOGY(SISTec)
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

QUESTION BANK

NAME OF THE FACULTY:
SUBJECT/CODE : CS702 C

UNIT-1

Q No.	QUESTIONS	Bloom's Taxonomy Level
1.	Compare and contrast the followings: i. Internet and Intranet ii. LAN, MAN, WAN iii. WWW and Internet iv. URL and HTTP	4(Analyze)
2.	Write short notes on: i. Hub ii. Bridge iii. Switch iv. Router v. Gateway	1(Remember)
3.	Explain the working of ARP protocol when both sender and receiver are on the same network and different networkrespectively? Explain how a computer determines its IP address when booted using RARP.	1(Remember)
4.	Explain IPv4 header format in detail with suitable diagram.	1(Remember)
5.	Explain how to route the data (routing is done) with IP Addresses. Compare Table-Driven IP Routing and Next-Hop Routing.	1(Remember)
6.	Identify various scenarios where ICMP can be used for error handling in TCP/IP protocol. Explain how ICMP can beused as request replay methods between networking devices?	4(Analyze)
7.	What do you understand by subnetting and supernetting? Explain with suitable example.	2(Understand)
8.	What do you understand by private addressing? Explain Network Address Translation (NAT) with suitable example.Explain the importance of translation table w.r.t. NAT.	2(Understand)

	Compare and contrast SNAT and DNAT.	
9.	What do you understand by Virtual LAN (VLAN)? How VLAN differs from real LAN? Discuss various types ofVLANs. Explain the importance of tagging in VLAN.	2(Understand)
10.	Explain IPv6 header format in detail with suitable diagram.	1(Remember)

UNIT-II

Q No.	**QUESTIONS**	**Bloom's Taxonomy Level**
1.	What do you understand by hidden network and autonomous system? Explain four basic message types defined byBGP.	2(Understand)
2.	Explain count to infinity problem with suitable example? Explain how to solve count to infinity problem?	1(Remember)
3.	Explain RIP Message Format with suitable diagram?	1(Remember)
4.	Explain OSPF Message Format with suitable diagram?	1(Remember)
5.	Explain TCP segment header format with suitable diagram.	1(Remember)
6.	Explain frame format of IEEE 802.11.	1(Remember)
7.	Explain how flow control is achieved between a pair of sender and receiver in TCP?	1(Remember)
8.	Explain how three way handshaking can be achieved between a sender and receiver with suitable example.	1(Remember)
9.	What do you understand by silly window syndrome? Explain various scenarios where silly window syndrome occurs?How to resolve silly window problem?	2(Understand)
10.	Why there is a need of UDP when we already have TCP? Explain in details. Discuss the UDP segment header format.	4(Analyze)

UNIT-III

Q No.	QUESTIONS	Bloom's Taxonomy Level
1.	Explain various transmission media used in wireless communication. Write down the advantages and disadvantages ofWLANs.	2(Understand)
2.	Explain "Hidden and Exposed Terminals" Problem and "Near and Far Terminals" Problem with example.	2(Understand)
3.	Explain the architecture of IEEE 802.11. Explain distributed coordination function (DCF) and point coordinationfunction (PCF) 802.11 MAC sublayers.	2(Understand)
4.	Write short notes on 802.11 FHSS, 802.11 DSSS, 802.11 infrared, 802.11a, 802.11b, and 802.11g.	1(Remember)
5.	What are the benefits of Spread Spectrum techniques? Explain Direct Sequence Spread Spectrum and FrequencyHoping Spread Spectrum with neat diagrams.	1(Remember)
6.	Explain why traditional IP is not suitable in wireless networks? What is Mobile IP? Explain various agent discoveryapproaches used in Mobile IP.	4(Analyze)
7.	Explain the registration process of the mobile node in Mobile IP. What is tunneling in Mobile IP? Explain.	2(Understand)
8.	What are ad hoc networks? What are the characteristics and applications of ad hoc networks? Explain variouschallenges and implementation issues related to ad hoc networks?	1(Remember)
9.	Explain why traditional routing is not suitable in ad hoc networks? Compare and contrast traditional IP routing and adhoc network routing.	2(Understand)
10.	Explain the working of AODV, DSR, DSDV and ZRP routing protocols.	2(Understand)

UNIT-IV

Q No.	QUESTIONS	Bloom's Taxonomy Level
1.	Give reason why traditional TCP is unsuitable in wireless environment. Define Mobile TCP? What is the goal of M-TCP? Explain the operation of Mobile TCP.	4(Analyze)
2.	Explain the working of indirect TCP and snooping TCP. Also compare indirect TCP and snooping TCP.	2(Understand)
3.	Explain the working of mobile TCP. What are the advantages of mobile TCP as compared to Indirect TCP andsnooping TCP?	2(Understand)
4.	Explain frequency reuse concept with suitable diagram. Define Co-channel interference and adjacent channelinterference and which are techniques for its reduction?	2(Understand)
5.	Explain GPRS with its Architecture.	2(Understand)
6.	Explain cell splitting and sectorization with neat diagram.	2(Understand)
7.	Which types of different services does GSM offer? Give some examples and reasons why these services have beenseparated.	2(Understand)
8.	Name the main elements of the GSM system architecture and describe their functions. What are the advantages ofspecifying not only the radio interface but also all internal interfaces of the GSM system?	3(Apply)
9.	Give reasons for a handover in GSM and the problems associated with it. What are the typical steps for handover, what types of handover can occur?	4(Analyze)
10.	How are localization, location update, and roaming done in GSM and reflected in the data bases? What are typicalroaming scenarios?	4(Analyze)

UNIT-V

Q No.	QUESTIONS	Bloom's Taxonomy Level
1.	Discuss the important features provided by a modern mobile operating system, the special constraints under which amobile OS needs to function, and the future trends in the development of mobile operating systems.	4(Analyze)
2.	Explain the principal functions of the operating system of a mobile device. Discuss how an example application canbe implemented on a mobile device and the specific operating system services that it makes use of.	2(Understand)
3.	What is a microkernel operating system? Why is microkernel-based design being preferred for developing a mobileOS?	1(Remember)
4.	Compare the features provided by the following mobile operating systems: Android, Symbian, and Windows Phone 7.	4(Analyze)
5.	What problems would occur if an attempt is made to enable the mobile user to browse the web by interfacing the mobile networks and the mobile devices directly to the WWW with only trivial extensions to the existing web protocols?	1(Remember)
6.	Why is HTML-based standard web access not very meaningful in mobile environments? How does WAP address this issue? What is C-HTML? How did C-HTML address problems that arose while accessing traditional web using mobile handsets?	4(Analyze)
7.	Briefly write how an application can be developed using the Android SDK.	3(Apply)
8.	What do you understand by M-commerce? What are the advantages and disadvantages of M-commerce. What do you mean by the 4 Ps of commerce? Explain the different forms of commerce that are obtained by varying the interpretation of the Ps.	2(Understand)
9.	What do you mean by B2B and B2C commerce? Give examples of M-commerce for these two categories of commerce. What is micropayment in M-commerce? How is micropayment achieved?	1(Remember)
10.	What do you understand by the mobile payment system? Briefly explain an application where mobile payment may beuseful. Explain the different payment systems that are available.	2(Understand)