Sample Questions

Computer Engineering

Subject Name: Adhoc Wireless Network **Semester: VIII**

Multiple Choice Questions

Choose the correct option for following questions. All the Questions 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.	IEEE 802.11 have three categories of ----------
Option A:	Fields
Option B:	Frames
Option C:	Signals
Option D:	Sequences
3.	Each channel in Bluetooth layer is ----
Option A:	1 MHz
Option B:	2 MHz
Option C:	3 MHz
Option D:	4 MHz
4.	In IEEE 802,11 frames, To DS and from DS define the value of the two flags in the ------
Option A:	Sequence field
Option B:	Data field
Option C:	Frame control
Option D:	Duration field
5.	On wireless networks ----- filtering is the security measure.
Option A:	OUI
Option B:	IP
Option C:	NIC
Option D:	MAC
6.	Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?
Option A:	CDMA
Option B:	CSMA/CA
Option C:	ALOHA
Option D:	CSMA/CD
7.	---------- scheme is used by Bluetooth for multiple access among co located devices in different piconets.

Option A:	Frequency hopping TDD Scheme
Option B:	Frequency hopping FDD scheme
Option C:	DSSS TDD scheme
Option D:	DSSS FDD scheme
8.	Wi-Max provides ----------
Option A:	VoIP
Option B:	IPTV
Option C:	Both VoIP and IPTV
Option D:	No IPTV services
9.	---------- provides the connectivity to Wi-Max Networks.
Option A:	Subscriber station
Option B:	Base station
Option C:	Gateway
Option D:	Switch Station
10.	What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model?
Option A:	Application
Option B:	Host to host
Option C:	Internet
Option D:	Network Access
11.	Which of the following protocols uses both TCP and UDP
Option A:	SMTP
Option B:	Telnet
Option C:	FTP
Option D:	DNS
12.	Which of the following is private IP address?
Option A:	12.0.0.1
Option B:	168.172.19.39
Option C:	172.15.14.36
Option D:	192.168.24.43
13.	Split TCP provides _____
Option A:	Congestion control
Option B:	Flow Control
Option C:	Speedy transmission
Option D:	Delay
14.	The use of ACTP in very large adhoc wireless networks does not provide
Option A:	Throughput
Option B:	Reliability
Option C:	Scalability
Option D:	Congestion control mechanism

15.	Throughput degradation in TCP is due to ------
Option A:	Misinterpretation of packet loss
Option B:	Frequent path breaks
Option C:	Decrease of path length
Option D:	Misinterpretation of congestion window
16.	Since Ad-hoc network is already have a limited resources and processing power, to keep a confidentiality w.r.t. connectivity between two nodes which are in range of each other, it uses a simple secure protocol like _____
Option A:	IEEE 802.15
Option B:	IEEE 802.11 WEP protocol
Option C:	IEEE 802.11a
Option D:	IEEE 802.17
17.	The network-layer security is concerned with securely delivering packets between mobile nodes through----------
Option A:	Single hop forwarding
Option B:	No Forwarding
Option C:	Multihop ad hoc forwarding
Option D:	None of the above
18.	Which of the following is not a hard real-time application which require QoS guarantees?
Option A:	Nuclear reactor control systems
Option B:	Air traffic control systems
Option C:	Missile control systems
Option D:	Online video lecture
19.	Which of the following is not a resource constraint of the nodes
Option A:	battery charge
Option B:	Processing power
Option C:	Cost
Option D:	Memory
20.	Which one of the following is not a function of network layer?
Option A:	Routing
Option B:	Inter-networking
Option C:	Congestion control
Option D:	Error control
21.	Which of these components is internal to a computer and is required to connect the computer to a network?
Option A:	Wireless Access Point
Option B:	Network Interface card
Option C:	Switch
Option D:	Hub
22.	-------- occurs when both nodes transmit packets at the same time without knowing about the transmission of each other.
Option A:	Intersection

Option B:	Collision
Option C:	Synchronization
Option D:	Error
23.	Which multiple access technique is used by IEEE 802.11 standard for wireless LAN?
Option A:	CDMA
Option B:	CSMA/CA
Option C:	ALOHA
Option D:	CSMA/CD
24.	For centralized routing the decision is made by some designated node called ……
Option A:	designated center
Option B:	Control center
Option C:	Network center
Option D:	Network control center
25.	Route discovery process in AODV protocol is_____
Option A:	Active
Option B:	Passive
Option C:	On Demand
Option D:	Frequent
26.	What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model?
Option A:	Application
Option B:	Host to host
Option C:	Internet
Option D:	Network Access
27.	User datagram protocol is called connectionless because _____
Option A:	all UDP packets are treated independently by transport layer
Option B:	it sends data as a stream of related packets
Option C:	it is received in the same order as sent order
Option D:	it sends data very quickly
28.	In ad hoc wireless networks the QoS requirements are more influenced by
Option A:	User specification
Option B:	Routing Protocols
Option C:	Topology of the network
Option D:	Resource constraints of the nodes
29.	Which of the following is not a hard real-time application which require QoS guarantees?
Option A:	Nuclear reactor control systems
Option B:	Air traffic control systems
Option C:	Missile control systems
Option D:	Online video lecture
30.	_____specifies the Logical Link Control (LLC) in VANET.
Option A:	IEEE 802.2
Option B:	IEEE 802.5
Option C:	IEEE 802.11
Option D:	IEEE 802.8
31.	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
32.	Hidden terminal problem is due to ----------
Option A:	Simultaneous transmission of nodes within the transmission range of each other
Option B:	Simultaneous reception of by nodes within the transmission range of sender
Option C:	Collision of packets at the receiving nodes due to simultaneous transmission of nodes which are not in the transmission range of each other but within the transmission range of the receiver
Option D:	The sender and receiver are not in the line of sight or in the transmission range of each other
33.	Sender initiated protocol is an example for_____
Option A:	Contention based protocol with scheduling mechanism
Option B:	Contention based protocol
Option C:	Synchronous protocol
Option D:	Asynchronous protocol
34.	DSR typically imposes a higher routing overhead in bytes than AODV, due to_____
Option A:	the cost of carrying destination routes in every packet.
Option B:	the cost of carrying source routes in every packet.
Option C:	the cost of carrying source routes in every Network.
Option D:	the cost of carrying destination routes in every Network.
35.	A highly adaptive, efficient, loop-free and scalable routing protocol based on link reversal algorithm.
Option A:	DSDV
Option B:	TORA
Option C:	AODV
Option D:	ZRP
36.	In TCP_BUS upon the detection of a path break, an intermediate node called the____
Option A:	Pivot node (PN)
Option B:	Failure Node(FN)
Option C:	Active Node(AN)
Option D:	Distributing Node(DN)
37.	_____ is sent to TCP-F sender, If the broken links rejoins or intermediate node obtains a new path to destination
Option A:	Route reestablishment notification (RRN)
Option B:	Route Failure Notification(RFN)
Option C:	explicit route disconnection notification (ERDN)
Option D:	explicit route successful notification packet (ERSN)
38.	_____attack does not come under active attack

Option A:	Snooping
Option B:	Jamming
Option C:	black hole attack
Option D:	gray hole attack
39.	When fraud access points are created to access information such as passwords." Which type of Wireless network threat would you classify this under?
Option A:	Identity Theft
Option B:	Network Injection
Option C:	Man in the middle attack
Option D:	Malicious Association
40.	IVC stand for_____
Option A:	Inter Vehicle Communication
Option B:	International Vehicle Circulation
Option C:	Inter Vehicle Circulation
Option D:	International Vehicle Communication

Descriptive Questions

Give the classification of outdoor and indoor mobility models in adhoc wireless networks. Explain Random Waypoint Model in detail.
What are the main issues that need to be addressed while designing MAC protocol for adhoc networks.? Explain Hidden and exposed terminal problem in detail
What are the characteristics of an Ideal Routing Protocols for Adhoc Wireless Network?
How Route maintenance is carried out in AODV protocol? give advantages and disadvantages of AODV
What are common Attacks on Routing Protocols? Explain in details.
Explain components of WAVE (Wireless Access for the Vehicular Environment).
What are the main issues that need to be addressed while designing MAC protocol for adhoc networks.
In which approach the problems of TCP such as throughput degradation with increase in the path length and unfairness among TCP flows can be overcome? Explain with suitable example and mention this approach merits and demerits
What do you mean by Quality of service (QoS) provisioning? Explain with example QoS routing in Adhoc Wireless Networks.
Give the difference between cellular networks and adhoc wireless networks.
Write short note on IEEE802.15.4(ZigBee).
What are the characteristics of an Ideal Routing Protocols for Adhoc Wireless Network?
Write short note on: Various security attacks in application layer.
Explain components of WAVE (Wireless Access for the Vehicular Environment).
Explain the characteristics that affect QoS provisioning in Ad-hoc wireless networks.
What are the main issues that need to be addressed while designing MAC protocol for adhoc networks?
Explain Temporary ordered routing algorithm (TORA). Also mention its advantages and disadvantages.
What do you mean by Quality of service (QoS) provisioning? Explain with example QoS routing in Adhoc Wireless Networks.

Give classification of transport layer solutions. And explain Split Approach and End-to-End approach.
List On-demand (Reactive) routing protocols and Explain TORA.
Explain network security attacks.
Why secure routing protocols are needed? Explain security aware Ad-hoc routing protocol (SAR).
Explain Layered architecture for VANETs.
Explain any three design issues of routing protocol for adhoc wireless networks.
Briefly discuss the network security requirements for adhoc networks.
Differentiate between cellular networks and Ad Hoc network
Explain characteristics of VANET.
Explain issues in designing MAC protocol in adhoc wireless protocol.
Explain Power-Aware routing protocol.
Describe the working mechanism of MAC protocol using directional antenna. Explain any one protocol of this category.
Classify the security attacks in adhoc wireless network. and explain network layer attacks in detailed
What do you mean by Quality of service (QoS) provisioning? Explain with example QoS routing in adhoc wireless networks.
Explain the Five phase reservation protocol.
List and explain the various applications of Ad Hoc Networks.
Discuss the operation of Feedback based TCP with suitable example.
Explain in detail the receiver initiated MAC protocol (MARCH). Media Access with Reduced Handshake Protocol (MARCH)
Explain in detailed Layered architecture for VANETs, DSRC /WAVE standard (IEEE 802.11p)