Assignment-3

(Network layer: Routing protocols)

Q 1. What is a Firewall in Computer Network?
   a. The physical boundary of Network
   b. An operating System of Computer Network
   c. A system designed to prevent unauthorized access
   d. A web browsing Software

Q 2. DHCP is the abbreviation of
   a. Dynamic Host Control Protocol
   b. Dynamic Host Configuration Protocol
   c. Dynamic Hyper Control Protocol
   d. Dynamic Hyper Configuration Protocol

Q 3. IPV4 Address is
   a. 8 bit
   b. 16 bit
   c. 32 bit
   d. 64 bit

Q 4. DNS is the abbreviation of
   a. Dynamic Name System
   b. Dynamic Network System
   c. Domain Name System
   d. Domain Network Service

Q 5. Router operates in which layer of OSI Reference Model?
   a. Layer 1 (Physical Layer)
   b. Layer 3 (Network Layer)
   c. Layer 4 (Transport Layer)
   d. Layer 7 (Application Layer)

Q 6. Each IP packet must contain
   a. Only Source address
   b. Only Destination address
   c. Source and Destination address
   d. Source or Destination address

Q 7. Which of the following IP address class is Multicast
   a. Class A
   b. Class B
   c. Class C
   d. Class D

Q 8. Which of the following is correct regarding Class B Address of IP address
   a. Network bit – 14, Host bit – 16
   b. Network bit – 16, Host bit – 14
   c. Network bit – 18, Host bit – 16
   d. Network bit – 12, Host bit – 14

Q 9. The last address of IP address represents
   a. Unicast address
   b. Network address
   c. Broadcast address
   d. None of above

Q 10. Why IP Protocol is considered as unreliable?
   a. A packet may be lost
   b. Packets may arrive out of order
   c. Duplicate packets may be generated
   d. All of the above

Q 11. What is the minimum header size of an IP packet?
   a. 16 bytes
   b. 10 bytes
   c. 20 bytes
   d. 32 bytes

Q 12. What is the address size of IPv6 ?
   a. 32 bit
   b. 64 bit
   c. 128 bit
   d. 256 bit

Q 13. What is the size of Network bits & Host bits of Class A of IP address?
   a. Network bits 7, Host bits 24
   b. Network bits 8, Host bits 24
   c. Network bits 7, Host bits 23
   d. Network bits 8, Host bits 23

Q 14. What does Router do in a network?
   a. Forwards a packet to all outgoing links
   b. Forwards a packet to the next free outgoing link
   c. Determines on which outing link a packet is to be forwarded
   d. Forwards a packet to all outgoing links except the originated link

Q 15. The Internet is an example of
   a. Cell switched network
   b. Circuit switched network
   c. Packet switched network
   d. All of above

Q 16. What is the uses of subnetting?
   a. It divides one large network into several smaller ones
   b. It divides network into network classes
   c. It speeds up the speed of network
   d. None of above

Q 17. What is the use of Ping command?
   a. To test a device on the network is reachable
   b. To test a hard disk fault
   c. To test a bug in a Application
   d. To test a Pinter Quality

Q 18. Routing tables of a router keeps track of
   a. MAC Address Assignments
   b. Port Assignments to network devices
   c. Distribute IP address to network devices
   d. Routes to use for forwarding data to its destination

Q 19. What is the maximum header size of an IP packet?
   a. 32 bytes
   b. 64 bytes
   c. 30 bytes
   d. 60 bytes

Q 20. What do you mean by broadcasting in Networking?
   a. It means addressing a packet to all machine
   b. It means addressing a packet to some machine
   c. It means addressing a packet to a particular machine
   d. It means addressing a packet to except a particular machine

Short Answer Questions

Q 1. What are the main features of Internet Architecture?

Q 2. Define IP. Draw the IP header with proper labels.

Q 3. What is classful addressing used by IP protocol?

Q 4. Define subnetting. What is the network address in a class A subnet with the IP address of one of the hosts as 25.34.12.56 and mask 255.255.0.0?

Q 5. What is routing and explain the distance vector routing algorithm?

Q 6. Can you explain how good and bad news propagate in a network?