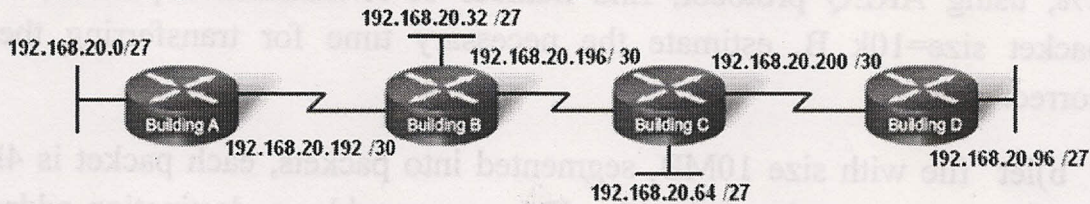


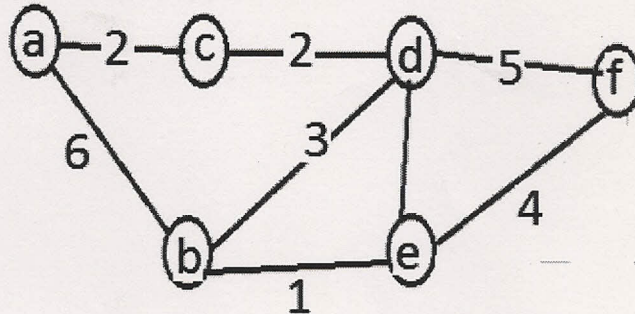


اجب علي التالي- كل سؤال ١٠ درجات

- 1- Discuss the activities of next internetworking elements: routers, firewalls, switches, hubs, servers, services provider, wireless access points, gateways, repeaters, and bridges.
- 2- Discuss the functions of each layer: physical , data link, network, transportation, session, presentation, and application layers.
- 3- Discuss the next services and protocols: DNS servers, Email servers, web servers, DHCP servers, FTP servers, POP , ATM, ISDN, ARP, RIP,
- 4- Identify hosts, and networks shown below, find subnets mask, show how the pc :192.168.20.5 can connect 192.168.20.101 and 192.168.20.69. , identify to which networks these pc 's belong to?



- 5- A- Compare dynamic routes versus static routes networks.
b- Define advantages of ; link state routes, distance vector routers
- 6- For the next network , show how to generate the routing table, shortest routes, alternative routes, between nodes a, f. how loops are avoided using hop count. Generate the cost matrix, the expected waiting time between each 2 servers is shown on link



- 7- a- Define the sequence of handshaking signals to open a connection and send a file from source to destination, let the file includes 10 packets
b- discuss next protocols, and in which layer they act :



جامعة كفر الشيخ
امتحان نهاية الفصل الدراسي الأول للعام الجامعي 2018-2019
الفرقة الرابعة حاسب الدرجة من ٩٠ درجة تاريخ الامتحان 2019/1 /21
المادة: شبكات الحاسب الاختبار يتحقق من : ILOs : a2, a3,a8,a13,a16, b2,b6,b7, b17, c14,c16, d3
- كلية الهندسة
الممتحن: د/علي صقر

اجب علي التالي- كل سؤال ١٠ درجات

Server Message Block protocol (SMB), Remote Procedure Call (RPC),
API, mail delivery agent, data compression,

8- a client requested a file package , the web server defined the location of destination after 1 sec. when client accessed the destination , he must wait in queue for 2 sec, then the package is segmented to be transmit for 1 sec. the transmission time via path time with bandwidth= 2MB/ sec. the transportation time within the path is 1 sec. the assembly time in local network is 1 sec. compute the total access time (time between requesting and attaining the package)

9-a) let file with size 8 MB, sent via channel with 2Mb/s, if error rate is 5%, using AREQ protocol, find number of re-transmitted packets, if packet size=10k B, estimate the necessary time for transferring the correct file

b)let file with size 10MB, segmented into packets, each packet is 4kB, each packet over headed with : IP4 source address, destination address, address of 8 intermediate access points, 64 b for CRC, 2 bytes for packet number and other control bits. If transmission is accomplished via channel with bandwidth=2Mb/s, estimate the necessary time for transferring the file., traffic efficiency.

