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## Fifth Semester B.E. Degree Examination, Aug./Sept.2020 Computer Networks

Time: 3 hrs.

Max. Marks: 100

**Note:** Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Compare client-server and peer-to-peer architecture. (06 Marks)  
b. What are the different types of transport services provided by the internet? (08 Marks)  
c. With a general format, explain the HTTP Request and HTTP Response messages. (06 Marks)

OR

- 2 a. Explain FTP commands and replies. (08 Marks)  
b. What are the services provided by DNS? (04 Marks)  
c. Write a short note on :  
i) Web caching  
ii) SMTP. (08 Marks)

### Module-2

- 3 a. Explain UDP segment structure. (06 Marks)  
b. With the help of FSM, describe the sender side and receiver side of rdt 2.0. (08 Marks)  
c. Explain Selective Repeat Protocol. (06 Marks)

OR

- 4 a. With a neat diagram, explain TCP segment structure and its fields. (08 Marks)  
b. Explain the way handshake and closing a TCP connection. (08 Marks)  
c. Define the following :  
i) Multiplexing  
ii) Demultiplexing  
iii) TCP  
iv) UDP. (04 Marks)

### Module-3

- 5 a. List and explain three switching techniques with a neat diagram. (10 Marks)  
b. With the help of FSM, describe the sender side and receiver side of rdt 2.0. (10 Marks)

OR

- 6 a. Write the algorithm for the following :  
i) Link-state  
ii) Distance vector. (08 Marks)  
b. Write a short note on :  
i) Broadcast routing  
ii) Multicast routing. (12 Marks)

**Module-4**

- 7 a. Explain 3G system architecture. (08 Marks)  
b. Explain the two different routing approaches to mobile node. (12 Marks)

**OR**

- 8 a. Define handoff. List the steps involved when a base station does decide to handoff a mobile user. (10 Marks)  
b. Write a short note on :  
i) Agent discovery in mobile IP  
ii) Registration with the home agent in mobile IP. (10 Marks)

**Module-5**

- 9 a. List and explain the types of multimedia networking application. (10 Marks)  
b. Briefly explain the following :  
i) RTP  
ii) SIP. (10 Marks)

**OR**

- 10 Write a short note on:  
a. FIFO scheduling mechanism  
b. Priority queueing scheduling mechanism  
c. Round robin and weighted fair queueing scheduling mechanism. (20 Marks)

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