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10CS/IS64

Sixth Semester B.E. Degree Examination, July/August 2021
Computer Networks – II

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1 a. Distinguish between connectionless packet switching and virtual circuit packet switching. (08 Marks)
b. With the help of a diagram, explain briefly the structure of a generic switch. (08 Marks)
c. Differentiate between connection oriented service and connectionless service. (04 Marks)
- 2 a. Define routing algorithm, explain the Bellman – Ford algorithm with an example. (10 Marks)
b. Explain the leaky bucket algorithm for policing the traffic at flow level. How does taken leaky bucket traffic shaper differs from leaky bucket algorithm. (10 Marks)
- 3 a. Describe the various field of IPV₄ header. (10 Marks)
b. Explain the IP address classification with examples. (05 Marks)
c. What is subnet addressing? Explain with an example. (05 Marks)
- 4 a. With a neat diagram, discuss the TCP segment header format. (08 Marks)
b. Explain the TCP 3-way handshake for establishing a TCP connection. (06 Marks)
c. What are the types of Internet routing Protocols? Explain working of Routing Information Protocol (RIP). (06 Marks)
- 5 a. Define Network Management and explain SNMP and SNMP messages. (08 Marks)
b. Differentiate between DES and RSA. (06 Marks)
c. Explain DNS and DNS Message format. (06Marks)
- 6 a. What is VPN? What are its types? List the benefits of creating VPN. (06 Marks)
b. What is an MPLS network? Explain the process of packet forwarding using MPLS. (08 Marks)
c. Explain with a neat, sketch the differential services QoS. (06 Marks)
- 7 a. Briefly discuss the MPEG standards and frame type for compression. (06 Marks)
b. Explain H.323 components with a neat sketches. List the steps involved in signaling. (08 Marks)
c. Discuss in brief the working of Real Time Transport Protocol (RTP). (06 Marks)
- 8 a. What are the classification of Routing Protocols in Ad – Hoc Networks. Discuss the following protocol i) DSDV ii) DSR protocol. (10 Marks)
b. What are the different clustering techniques in wireless sensor Networks. Discuss briefly. (04 Marks)
c. With a neat sketch, discuss the sensor node structure. (06 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.