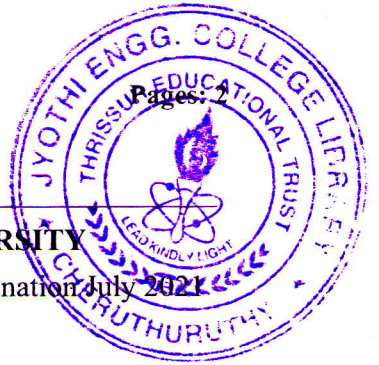


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Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Sixth Semester B.Tech Degree Regular and Supplementary Examination July 2021

Course Code: CS306

Course Name: COMPUTER NETWORKS

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 3 marks.

Marks

- 1 Describe any three applications of Computer Networks. (3)
- 2 Differentiate asynchronous response and asynchronous balanced mode of operations in HDLC. (3)
- 3 Write the functions of presentation and session layer of OSI reference model. (3)
- 4 Describe the frame format for IEEE 802.3 standard in detail. (3)

PART B

Answer any two full questions, each carries 9 marks.

- 5 a) Explain TCP/IP reference model with the help of a diagram. (5)
- b) Write any three disadvantages of using computer networks. (4)
- 6 a) Illustrate the action of token bus and explain its frame format. (6)
- b) Differentiate bridges and switches. (3)
- 7 a) Explain the application layer of OSI reference model in detail with examples of protocols. (4)
- b) Write notes on ALOHA, CSMA and CSMA/CA. (5)

PART C

Answer all questions, each carries 3 marks.

- 8 Describe the static routing algorithm flooding. (3)
- 9 Define router and routing. Explain any two functions of network layer. (3)
- 10 Explain the three types of implementations of internetworking. (3)
- 11 Explain any three closed loop congestion control techniques. (3)

PART D

Answer any two full questions, each carries 9 marks.

- 12 a) Explain distance vector routing algorithm with an example. (5)
- b) Illustrate subnetting with an example. (4)

- 13 a) Demonstrate token bucket algorithm with a diagram. (6)
- b) Write notes on QoS in networks. (3)
- 14 a) Discuss OSPF with an example. (4)
- b) Elaborate RIP and explain its features. (5)

PART E

Answer any four full questions, each carries 10 marks.

- 15 a) Explain IPV6 with frame format. (5)
- b) Describe the operation of IGMP in detail. (5)
- 16 a) Differentiate IPV4 and IPV6. (5)
- b) Explain RARP and ICMP. (5)
- 17 a) Explain in detail about www with real scenario examples. (7)
- b) Define fully qualified and partially qualified domain name. (3)
- 18 Explain ICMP and ICMPv6 in detail with advantages and disadvantages. (10)
- 19 a) Describe SNMP in detail with a diagram. (6)
- b) Discuss the working of electronic mail system. (4)
- 20 a) Define the role of UDP in Internet protocol suite. (5)
- b) Describe the format of a TCP segment with the help of a diagram. (5)
