

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2020

Course: Computer Networks
Program: B.Tech- Mechatronics
Course Code: CSEG 391

Semester : VIII
Time : 03 hrs.
Max. Marks: 100

Instructions: Attempt all the questions.

SECTION A (Low Difficulty Level)

S. No.		Marks	CO
Q 1	Which of the following is a false statement? (a) Node-to-node delivery is handled at physical layer. (b) Host-to-host delivery is handled at network layer. (c) Process-to-process delivery is handled at transport layer. (d) Data link layer makes the physical layer reliable.	5	CO1
Q 2	Which one of the following is a multicast address: (a) AB:97:A8:65:34:BC (b) DC:AB:76:24:24:64	5	CO1
Q 3	If the first few bits of an IP header is 0100101000010000, length of the IP header is: (a) 16 bytes (b) 40 bytes (c) 74 bytes (d) 32 bytes	5	CO2
Q 4	Which of the following protocol is used along with IP to make it more reliable? (a) IGMP (b) ICMP (c) ARP (d) RARP	5	CO2
Q 5	UDP is a connectionless, but reliable transport layer protocol. (True/ False)	5	CO3
Q 6	Which of the following is not used as an unguided media in the computer networks. (a) Radio waves (b) Microwaves (c) Infrared (d) Seismic waves	5	CO1

SECTION B (Mid Difficulty Level)

Q 7	Define the digital signature.	10	CO4
Q 8	Subnet the class C IP address 195.1.1.0 so that you have at least 2 subnets each accommodating 48 hosts. What are the two possible subnet masks.	10	CO2
Q 9	List down and explain each field in the TCP segment header in brief.	10	CO3
Q 10	Let the first few bits of an IP header is 01000010. Explain, why the receiver will discard this IP packet. <p style="text-align: center;">OR</p> Let there be a dataword 101011 which is to be sent across the medium using the Hamming code. Compute the transmittable codeword.	10	CO2
Q 11	Draw the ranges of port numbers as suggested by IANA.	10	CO3

SECTION-C (High Difficulty Level)

Q 12	(a) What is DNS? What resource records are associated with it? (b) List down the five basic functions supported in the e-mail system.	20	CO4
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