


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, May 2022			
Course: Network and Internet Forensics Program: B.Tech. (CSE)-OSS Course Code: CSSF 4012		Semester: VIII Time : 03 hrs. Max. Marks: 100	
Instructions: Attempt all Questions.			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Differentiate LAN and WAN.	4	CO1
Q2	Give a brief account of DHCP (Dynamic Host Configuration Protocol)	4	CO2
Q 3	Write short notes on: a) Routers b) Firewalls	4	CO3
Q 4	What is SMDS and how does it work?	4	CO4
Q 5	Give a brief account of HP Openview.	4	CO5
SECTION B (4Qx10M= 40 Marks)			
Q 6	Consider a 10 Mbps Ethernet LAN that has stations attached to a 2.5 km long coaxial cable. Given that the transmission speed is 2.3×10^8 m/sec, the packet size is 128 bytes out of which 30 bytes are overhead, find the effective transmission rate and the maximum rate at which the network can send data.	10	CO1
Q 7	Write mechanisms of collision detection in Ethernet.	10	CO2
Q 8	“While not always ideal, the use of a VPN is often the most affordable and secure way to protect oneself online”. Explain	10	CO2
Q 9	Analyze the common threats to email security. Write different ways to secure the email.	10	CO3
OR			
“FDDI is used mainly in mission critical and high traffic networks			

	where large amounts of data flow need to flow quickly and efficiently". Present an account of features of FDDI in light of the above statement.		
SECTION-C (2Qx20M=40 Marks)			
Q 10	Describe how redundant Servers and RAID are used to avoid the single points of failure.	20	CO4
Q 11	Explain penetration testing and give an account of processes that are involved with network penetration testing? OR Write steps to locate one's own DNS server? Can we use 8.8.8.8 DNS? Explain with reason.	20	CO5