

Name:	 UPES <small>UNIVERSITY WITH A PURPOSE</small>
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2021

Course: Information Technology Infrastructure Landscape Overview	Semester: V
Program: B. Tech. (CS+CSF)	Time 03 hrs.
Course Code: CSIT1003	Max. Marks: 100

Instructions: Attempt all questions.

SECTION A

Each Question will carry 5 Marks

S. No.		Marks	CO
Q 1	Pick the correct answer: i) Masquerade is an example of: a) Active attack b) Passive attack c) Serious attack d) None ii) Which of the following storage device is directly accessible by the CPU? a) Hard Disk Drive b) Optical Disks c) RAM d) Flash Drives	2 + 2	CO1
Q 2	Fill in the blanks: i) Entries are stored in tree like structure called as _____. ii) Full form of OLAP is _____.	2 + 2	CO2
Q 3	Explain 4 Aggregate operators of SQL with the help of SQL query.	4	CO3
Q 4	Pick the correct answer: i) When any message is encrypted using the sender's private key for achieving the authenticity, it is called _____. a) Digital Certificate b) Digital Signature c) Hashing d) None ii) _____ is the standard unit of measure of height of rack for rack servers. a) X b) U c) H d) None of these	2 + 2	CO1
Q 5	Fill in the blanks: i) Full form of LDIF is _____. ii) Different RAID functions are parity, mirroring and _____.	2 + 2	CO2

SECTION B

Each Question will carry 10 Marks

Q 6	Define the process of a switch learning switch table? Explain the different functions performed at layer 2 switch.	5 + 5	CO1
Q 7	Explain different types of cryptography with the help of example. Discuss at least one algorithm under each type of cryptography.	6 + 4	CO2
Q 8	Discuss the need of disk scheduling with the help of example. Explain the internal structure of Hard Disk Drive also.	5 + 5	CO2
Q 9	Q) Explain the following LDAP models: (2.5*4= 10 marks) a) Information model b) Naming model c) Functional model d) Security model	10	CO3

SECTION-C

Each Question carry 20 Marks

Q 10	Explain the following terms: (5*4=20 marks) a) OLTP & OLAP b) Blade server & Rack server c) Data Mining & Data Warehousing d) Multitasking & Multiprogramming.	20	CO4
Q 11	State the uses Hypervisor in virtual environment. Explain different types of Hypervisors with their limitations. Explain with the help of proper diagrams.	6+8+6	CO5