

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2018

Course : IT Infrastructure Landscape Overview

Semester: I

Programme: B.Tech-CSE IT Infrastructure

CSIT1003

Time: 03 hrs.

Max. Marks: 100

Instructions: All questions are compulsory

SECTION A

S. No.		Marks	CO
Q 1	<p>Pick the correct answer:</p> <p>i) Which of the following storage device is directly accessible by the CPU? a) Hard Disk Drive b) Optical Disks c) RAM d) Flash Drives</p> <p>ii) _____ is the standard unit of measure of height of rack for rack servers. a) X b) U c) H d) None of these.</p> <p>iii) Which one of these is characteristic of RAID 5? a) Distributed parity b) No parity c) All parity in a single disk d) Double parity</p> <p>iv) Network speed is measured as _____. a) Ethernet b) Bandwidth c) Telnet d) Protocol</p>	4	CO1, CO3, CO5
Q 2	<p>Fill in the blanks:</p> <p>i) VPN stands for _____.</p> <p>ii) Entries are stored in tree like structure called as _____.</p> <p>iii) A _____ is a computer that performs actions for another computer.</p> <p>iv) LDIF stands for _____.</p>	4	CO1, CO4, CO6
Q 3	<p>True / False.</p> <p>i) FTP is used for transferring files between networks. (T / F)</p> <p>ii) CGI is stands for common gateway interaction. (T / F)</p> <p>iii) When different organizations comes forth to form a unity using network of computers is Extranet. (T / F)</p> <p>iv) The process of interaction between the browser and the web server is identified by the HTTP. (T / F)</p>	4	CO3, CO4, CO5
Q 4	Differentiate between File Level and Block Level Storage with adequate example.	4	CO4

Q 5	What is Operating System? What are the different types of OS? Explain.	4	CO4
SECTION B			
Q 6	What do you understand by disk scheduling? Why we need it? Explain the internal structure of Hard Disk Drive.	[2+2+6]	CO4
Q 7	Explain briefly about Directory Services. Give two example of directory services with architecture.	[4+6]	CO6
Q 8	Explain the following LDAP models: a) Information Model b) Naming Model c) Functional Model d) Security Model	[2.5+2.5+2.5+2.5]	CO4
Q 9	Define Topology. What are the different types of topologies? Explain briefly with diagram. OR Explain briefly about Storage Virtualization. What are the different types of storage virtualization and its advantages & disadvantages?	[4+3+3]	CO3
SECTION-C			
Q 10	What do you understand by Hypervisor? Why we need it? Explain different types of Hypervisors with their limitations. Explain with the help of proper diagrams.	[3+3+10+4]	CO5
Q 11	Explain the following terms. a) OLTP and OLAP b) Blade Server and Rack Server c) Data Mining and Data Warehousing d) Multitasking and Multiprogramming OR a) Define Server Partitioning. What are the various types of workloads that is applicable on server? b) Explain Briefly about Hypervisor. What are different types of Hypervisor? C) c) What are the limitations for each of them? d) What are the different ways to deploy the operating systems?	[5+5+5+5]	CO2


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Name of Examination <small>(Please tick, symbol is given)</small>	:	MID		END	☒	SUPPLE	
Name of the School <small>(Please tick, symbol is given)</small>	:	SOE	☒	SOCS		SOP	
Programme	:	B.Tech CSE IT Infrastructure					
Semester	:	I					
Name of the Course	:	IT Infrastructure Landscape Overview					
Course Code	:	CSIT 1003					
Name of Question Paper Setter	:	PRASHANT RAWAT					
Employee Code	:	40001623					
Mobile & Extension	:	7895079663					
Note: Please mention additional Stationery to be provided, during examination such as Table/Graph Sheet etc. else mention "NOT APPLICABLE":							
FOR SRE DEPARTMENT							
Date of Examination	:						
Time of Examination	:						
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Note: - Pl. start your question paper from next page

Model Question Paper (Blank) is on next page

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SECTION A

S. No.		Marks	CO
Q 1	<p>Pick the correct answer:</p> <p>v) The _____ describes the machines location in a name space from right to left. a) DNS b) Protocol c) Server d) Client</p> <p>vi) A computer network that spans a relatively large geographical area is called _____. a) WAN b) LAN c) VPN d) None of these.</p> <p>vii) Which one of these is characteristic of RAID 5? a) Distributed parity b) No parity c) All parity in a single disk d) Double parity</p> <p>viii) In a network, a machine is identified by unique address called _____. a) IP Address b) MAC address c) Telnet d) Protocol</p>	4	CO1, CO3, CO5
Q 2	<p>Fill in the blanks:</p> <p>v) ASCII stands for _____.</p> <p>vi) Entries are stored in tree like structure called as _____.</p> <p>vii) A _____ is a computer that performs actions for another computer.</p> <p>viii) _____ URL stands for _____.</p>	4	CO1, CO4, CO6
Q 3	<p>True / False.</p> <p>v) A computer is identified by 64 bit address. (T / F)</p> <p>vi) IP address is a sequence of four digit numbers separated by comma. (T / F)</p> <p>vii) When different organizations comes forth to form a unity using network of computers is Extranet. (T / F)</p> <p>viii) A modem coverts digital signals to analog signals only. (T / F)</p>	4	CO3, CO4, CO5
Q 4	Define Server Clustering. What are the benefits of Server Clustering?	4	CO4
Q 5	What is Virtual Machine? Explain the types of Virtual Machine with adequate examples	4	CO4
SECTION B			
Q 6	Define disk scheduling? Why we need it? Explain the internal structure of Hard Disk Drive.	[2+2+6]	CO4

Q 7	Explain briefly about Directory Services. Give two example of directory services with architecture.	[4+6]	CO6
Q 8	Explain the following LDAP models: e) Information Model f) Naming Model g) Functional Model h) Security Model	[2.5+2.5 +2.5+2. 5]	CO4
Q 9	Define Topology. What are the different types of topologies? Explain briefly with diagram. OR Explain briefly about Storage Virtualization. What are the different types of storage virtualization and its advantages & disadvantages?	[4+3+3]	CO3
SECTION-C			
Q 10	Define computer networks? Discuss various types of networks topologies in computer network. Also, discuss various advantages and disadvantages of each topology.	[6+7+7]	CO5
Q 11	Explain the following terms. e) OLTP and OLAP f) Blade Server and Rack Server g) Data Mining and Data Warehousing h) Multitasking and Multiprogramming OR What is data? How data created by “Individuals” is different from data created by “Businesses”? What are the key challenges they faced while storing that data?	[5+5+5+ 5]	CO2