

<b>Name:</b>	
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2018**

**Course: IT infrastructure and Landscape (CSIT1001)**

**Semester: I**

**Programme: B. tech (CCVT 1<sup>st</sup> year)**

**Time: 03 hrs.**

**Max. Marks: 100**

**Instructions:**

**SECTION A**

S. No.	Attempt every question.	Marks	CO
Q 1	Discuss the Characteristics of the Database, Data Mart to strengthen the IT in Society.	4	CO1
Q 2	Define the role of SAN in the IT and differentiate the SAN with NAS.	4	CO2
Q 3	Discuss the types of Storage system and detail out any two application of the storage system.	4	CO3
Q 4	Analyze need of virtualization in the IT market. And the role of virtualization in the traditional it infrastructure.	4	CO4
Q 5	Discuss the use of operating system and kindly explain the use of CLI interface.	4	CO2

**SECTION B**

Q 6	Draw the architecture of the Hypervisor and discuss the difference between type 1 hypervisor and type 2 hypervisor.	10	CO4
Q7	Discuss the importance of RAID and kindly demonstrate the use of RAID.	10	CO5
Q 8	Demonstrate basic steps of deploying the Server with the example	10	CO2
Q9	<p>Explain the role of Security in traditional IT infrastructure and the concept of the firewall and Cryptography in the Security.</p> <p style="text-align: center;">OR</p> <p>Discuss the Role of Virtualization Security and the Patch management concept with detail explanation and the example.</p>	10	CO3

**SECTION-C**

Q 10	Discuss the LDAP replication topologies and demonstrate each topology with the specific	20	CO5
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	<p>diagram.</p> <p style="text-align: center;">OR</p> <p>Explain</p> <p>a) Data ware house, its advantage and disadvantages with example.  b) Data Mining, its advantage and disadvantages with example.</p>		
Q11	<p>Demonstrate the common messaging system and web tier architecture with detail explanation.</p> <p style="text-align: center;">OR</p> <p>Explain</p> <p>a) Define the role of Network in the field of IT and tell the disadvantage of traditional it infrastructure.  b) Discuss Bus topology and hybrid topology with advantage and disadvantages.</p>	<b>20</b>	<b>CO3</b>

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<b>Instructions:</b>	

**SECTION A**

S. No.	Attempt every question.	Marks	CO
Q 1	Discuss the Importance of Data ware house and Data mining to solve the basic problem of the IT Infrastructure.	4	CO1
Q 2	Draw the Architecture of the SAN and NAS with detail specification	4	CO3
Q 3	Demonstrate the Significance of Zones and discuss the application of the Hard Zoning and Soft Zoning.	4	CO2
Q 4	Explain the Importance of virtualization and briefly discuss the storage virtualization.	4	CO3
Q 5	Discuss the main function of operating system and explain the use of GUI interface.	4	CO2

**SECTION B**

Q 6	Discuss the importance of the server technology, kindly demonstrate the use of Server in the traditional IT infrastructure.	10	CO4
Q7	Describe the basic function of RAID technology and kindly demonstrate by giving the example of RAID 1 and RAID 0.	10	CO5
Q 8	Discuss the role of LDAP technologies and discuss the architecture model of the LDAP.	10	CO3
Q 9	Discuss the role of Security in traditional IT infrastructure and Explain the concept of the firewall and Cryptography in the Security.  OR  Demonstrate basic steps of deploying the Server with the example	10	CO5, CO3

**SECTION-C**

Q 10	Discuss the Importance of IT infrastructure and take one example to solve any problem by traditional approach of IT, Discuss the problem solution with proper	20	CO4
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	flow chart.  OR Demonstrate the various: a) Ring topologies with advantage and disadvantage. b) Star topologies with advantage and disadvantage. c) Mesh topology with advantage and disadvantage. d) Tree Topology with advantage and disadvantage.		
Q11	Explain cryptography and demonstrate the public and private key encryption briefly.	20	CO3