

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, April/May 2018

Course: IT Infrastructure Management Framework/CSIB319
Program: B.Tech. CSE+IT Infra
Time: 03 hrs.

Semester: VI
Max. Marks: 100

Instructions: Students are supposed to assume any missing data and has to give examples/draw diagrams wherever applicable

SECTION A [20 Marks]

S. No.		Marks	CO
Q 1	Discuss how UPES can achieve its business process outcome through “Effective Data Center Management”.	4	CO1
Q2	Clarify your role and responsibility as an Operation Manager for Bidholi Campus.	4	CO2
Q3	Illustrate the need of SLA for UPES IT Services among third party vendors.	4	CO3
Q4	Why you prefer SAN for data centre?	4	CO4
Q5	How to overcome single point of failure?	4	CO5

SECTION B [40 Marks]

Q6	Analyze and describe the figure shown below: <div data-bbox="259 1144 1153 1722" data-label="Diagram"> <p>The diagram, titled "IT Helpdesk Model", illustrates the components and interactions of an IT helpdesk. It is enclosed in a grey frame with "Continuous Improvement" on the left and "Performance" at the bottom. Inside the frame, the "Mission" section at the top contains the "IT Helpdesk Organization" (subdivided into Level 1, Level 2, and Level N) and the "Service Review Board". Below this is the "Enablers" section, which includes Technology, Channels, Analytics, Competencies, and Capabilities. To the right of the frame is a vertical green bar representing "Business / Customers". A blue vertical bar labeled "Service Offer" is positioned between the internal components and the Business/Customers bar. Arrows indicate the following relationships: "Sponsor" (from Mission to Business/Customers), "Market" (from Service Offer to Business/Customers), and "Feedback" (from Business/Customers to Service Offer). A line also connects the top of the Business/Customers bar back to the top of the Mission section.</p> </div>	10	CO2+ CO5
Q7	Summarize the concepts and need of <i>Storage Consolidation and Optimization</i> ” and discuss how it can be beneficial for UPES IT services and Data Centre?	10	CO4+ CO1
Q8	Demonstrate various Load Balancing Methods and techniques that you can consider for UPES IT Framework.	10	CO3+ CO5

Q9	Compare between Domain Manager and Managed Servers.	10	CO1+ CO2
SECTION-C [40 Marks]			
Note* Q10 is compulsory and attempt any one question from Q11 and Q12			
Q10	You as newly appointed CTO for UPES, review area of improvements for UPES IT Process for the following: i. Process Management for IT Services ii. Service Management iii. Operation Management iv. Maintenance Layer for Data Centre	20	CO1,C O2,CO 3 CO5
Q11	Analyze and review the UPES IT services and Data Centre, now explain the SPOF in this process and discuss how you can use dashboard monitoring to overcome SPOF?	20	CO1,C O2,CO 3,CO4, CO5
OR			
Q12	How UPES can achieve its business process outcome through “Provisioning and Scalable Solutions”? Students must explain the SLA and other automation challenges with proper examples.	20	CO1,C O2,CO 3,CO4, CO5

Q8	Illustrate the need of the following based on UPES IT System environment: a. Control Centre b. Failover Considerations	10	CO1+ CO5
Q9	Why OLA requirement are must for UPES and its IT services. Discuss.	10	CO2+ CO3
SECTION-C [40 Marks]			
Note* Q10 is compulsory and attempt any one question from Q11 and Q12			
Q10	You as newly appointed CTO for UPES, review area of improvements for UPES IT Process for the following: i. Domain Specific Management ii. Security Layer iii. Work Load Balance iv. Storage Consolidation and Optimization	20	CO1,C O2,CO 3,CO4
Q11	Analyze and review the UPES IT services and Data Centre, demonstrate various Load Balancing Methods you will consider for UPES IT Framework and suggest improvement with justification.	20	CO1,C O2,CO 3,CO4, CO5
OR			
Q12	IT Process Automation of any organization: i. Hijack attacks ii. Level of Resilience iii. Truncation Attacks iv. IT Process Strategy v. Security Access Control	20	CO1,C O2,CO 3,CO4,