

16117(J) June-16

**B. Tech 6th Semester Examination**  
**Information Storage & Management (NS)**  
**CS-325**

**Time : 3 Hours**

**Max. Marks : 100**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt one question each from Section A, B, C and D. And all parts of Section E.

**SECTION - A**

1. What is storage provisioning? Also, explain thin provisioning. (20)
2. What is application and storage virtualization? Also differentiate between Block and file virtualization. (20)

**SECTION - B**

3. Write down various components of Storage Area Network (SAN), and also explain them. (20)
4. Differentiate between IP-SAN and NAS. (20)

**SECTION - C**

5. Explain standard approaches for backup & disaster recovery in clouds. (20)
6. Explain clustering and multipath architecture to avoid single point of failure in clouds. (20)

**SECTION - D**

7. Explain cloud computing architecture in detail. (20)
8. Explain virtualization security in cloud computing environment. (20)

**SECTION - E**

9. (a) What is storage Tiering?  
(b) Give two examples of virtual systems on desktops.  
(c) What is cloud migration?  
(d) What is cloud archiving?  
(e) Explain data deduplication.  
(f) Explain any two backup strategy in cloud environment.  
(g) What is RAID?  
(h) What is FCoE?  
(i) What is Fibre Channel Protocol?  
(j) Write down three characteristics of cloud computing. (2×10=20)