[4860]-1313

M.E. (Computer Engineering)
ADVANCED STORAGE SYSTEMS AND INFRASTRUCTURE MANAGEMENT
(610101) (2013 Credit Pattern) (Semester -III)

Time : 3 Hours]   *[Max. Marks : 50*

Instructions to the candidates:

   1)   *Attempt any five questions.*

   2)   *Neat diagrams must be drawn wherever necessary.*

   3)   *Figures to the right side indicate full marks.*

Q1) a) The average I/O size of an application is 128 KB . The following specifications are available from the disk manufacture: average seeks time = 3ms, 8,400 RPM, transfer rate = 40 MB/s. Determine the maximum IOPS that could be performed with this disk for this application. **[5]**

     b) Explain the terms Idle flushing , High Watermark flushing and Forced flushing in relevance to cache watermarking. **[5]**

Q2) a) What are the factors that affect the performance and availability of NAS? Explain. **[5]**

     b) What is SCSI ? Describe the SCSI-3 Architecture and explain the steps involved in SCSI Communication. **[5]**

Q3) a) What is single point of failure? Give examples in context of data center environment. **[5]**

     b) What is the importance of recoverability and consistency in Remote replication? **[5]**

Q4) a) What are the various elements of IT Infra structure? How are they related? **[5]**

     b) What are the various Infrastructure management activities? **[5]**

Q5) a) Explain with neat diagram Information Technology Infrastructure Library. **[5]**

   b) Which common tasks should be performed for IT System Management? **[5]**

Q6) a) What is Service Delivery? What management practices ensure that IT services are provided as per the agreement between service provider and customer? **[5]**

   b) Explain the following terms: **[5]**

       i)   Service level Management.

       ii)   Financial Management and Costing.

       iii) Availability Management.

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