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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Seventh Semester, B.E. – Computer Science and Engineering Make-up Examination; Jan / Feb - 2017 Information Storage and Management

Time: 3 hrs Max. Marks: 100 *Note:* Answer *FIVE* full questions, selecting *ONE* full question from each unit. UNIT - I 1 a. List and explain the key characteristics of data center element. 10 Explain the techniques that are used to define RAID levels (with example). 10 2 a. What is cache? How is it implemented and managed in intelligent storage system? 10 Explain the logical components of the hosts. 10 UNIT - II 3 a. Discuss different types of Direct attached storage, its benefits and limitations. 10 What are the key elements of storage area network? Explain. 10 4 a. List and describe the benefits of network attached storage. 10 Explain fibre channel arbitrated loop inter connectivity with the example of data 10 transmission. **UNIT - III** Explain iSCSI protocol stack and iSCSI PDU. 10 5 a. Discuss the process of storing and retrieving objects in content addressed storage. 10 b. 10 6 a. Explain the challenges of storage virtualization. b. Outline the features and benefits of CAS. 10 **UNIT-IV** Explain the different stages of business continuity planning life cycle. 10 7 a. Discuss backup consideration and backup granularity. 10 List and define common terms related to business continuity operation. 8 a. 10 What are the purposes for performing backups? Explain. 10 UNIT - V Discuss the host based replication technology used in local replication. 9 a. 10 Which are the optical network technologies used for remote replication? Explain. 10 Explain how the application access domain is secured? 10

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Discuss how the management task in a storage infrastructure is categorized?