

**M. TECH. –III (COMPUTER ENGINEERING) (CBCS – 2015
COURSE) : WINTER - 2017
SUBJECT : ELECTIVE – II : STORAGE AREA NETWORK**

Day : **Thursday**
Date : **18/01/2018**

Time **11.00 AM TO 02.00 PM**
Max. Marks : **60**

W-2017-2857

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Assume suitable data if necessary.
- 4) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION - I

- Q.1** a) Describe the various factors that affect the performance of disk drives. **(05)**
b) Why RAID 1 not a substitute for a backup? Explain the process of data recovery in case of a drive failure in RAID 5. **(05)**
- OR**
- Q.1** Compare the different types of RAID. **(10)**
- Q.2** Explain the structure of Cache. Describe at-least two cache management algorithms with an example of each. **(10)**
- OR**
- Q.2** Illustrate the process of mapping user files to disk storage with a neat labeled diagram. **(10)**
- Q.3** What is Intelligent Storage System? Explain the components of intelligent storage system with neat diagram. **(10)**
- OR**
- Q.3** Define Virtual Storage Provisioning. Differentiate between the various intelligent storage systems. **(10)**

SECTION - II

- Q.4** What do VLANs Virtualize? Discuss VLAN implementation as a Virtualization technology. **(10)**
- OR**
- Q.4** Describe the SNIA Storage Virtualization taxonomy. What are the different challenges addressed by Storage Virtualization? Explain. **(10)**
- Q.5** What is iSCSi? Explain in detail the iSCSi protocol stack? **(10)**
- OR**
- Q.5** Explain the working of Flow Control in FC Network? Why is class 3 service most preferred for FC Communication? **(10)**
- Q.6** a) Describe the main activities that are involved in Managing Storage Infrastructure. **(05)**
b) What do you understand by ILM implementation? **(05)**
- OR**
- Q.6** Explain these following terms with respect to their purpose, benefits and demerits: **(10)**
(i) Snapshot (ii) Storage migration (iii) RTO and RPO.

* * *