

# CBCS SCHEME

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16/17SFC41

Fourth Semester M.Tech. Degree Examination, June/July 2019

## File System Forensic Analysis

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. What is need of extended partition in DOS? Explain in brief. (08 Marks)  
b. Explain the method of partition 12GB HDD to 2GB partition in DOS with neat diagram. (08 Marks)

OR

- 2 a. Explain about free BSD and open BSD disk partition. (08 Marks)  
b. Explain Hardware RAID and Software RAID, with neat diagram. (08 Marks)

### Module-2

- 3 a. What is File system? Explain 5 data categories with neat diagram. (08 Marks)  
b. Explain Analysis techniques of content category (Any 3). (08 Marks)

OR

- 4 a. Define Metadata. Explain basic concepts of Metadata category in detail. (08 Marks)  
b. Explain file name searching and directory entry ordering in FAT file system. (08 Marks)

### Module-3

- 5 a. Explain the overview of MFT. Explain MFT entry contents and MFT entry addresser. (08 Marks)  
b. Explain standard NTFS file system Meta data files. (08 Marks)

OR

- 6 a. Explain Encrypted attributes of NTFS.209 option. (08 Marks)  
b. Explain how B – Trees are used to sort the indexes in NTFS. (08 Marks)

### Module-4

- 7 a. Explain Super block and Block group descriptor in file system category of EXT3. (08 Marks)  
b. Explain links and mount points in EXT3 file system. (08 Marks)

OR

- 8 a. Explain file recovery and consistency checks in EXT3. (08 Marks)  
b. Explain EXT3 file system Journaling, with neat diagram. (08 Marks)

### Module-5

- 9 a. Explain the relationship between UFS directory , i – nodes and data block. Explain superblock. (08 Marks)  
b. Explain i – nodes and extended attributes of UFS. (08 Marks)

OR

- 10 a. Explain Overview of file name category. (08 Marks)  
b. Explain File deletion steps in EXT3 file system, with neat diagram. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.