

Seat No.	
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T.E. (Computer Science and Engineering) (Semester - VI)**Examination, May - 2018****OPERATING SYSTEM - II****Sub. Code : 66859****Day and Date : Saturday, 05 - 05 - 2018****Total Marks : 100****Time : 2.30 p.m. to 5.30 p.m.**

- Instructions :
- 1) Figures to the right indicate full marks.
 - 2) Solve any two questions from Q. 1 to Q. 3.
 - 3) Solve any two questions from Q. 4 to Q. 6.

- Q1) a)** Explain Structure of buffer pool and buffer header. [8]
b) Explain the concept of delayed write with suitable examples. [7]
c) Explain Structure of a regular file in UNIX. [10]
- Q2) a)** Find the logical disk block number and offset within the block for inode number 267. Assume size of disk block as 1024 bytes and size of disk inode as 64 bytes. [8]
b) How are free disk blocks managed in UNIX? Explain different scenarios for assigning a free block to a file. [8]
c) Explain Following System calls: [9]
i) Create
ii) Write
iii) Mount
- Q3) a)** Explain read and write operations in the pipe. [8]
b) Explain bread algorithm. [7]
c) What is Super Block? List fields from the Super Block. [5]
d) What is incore inode? List fields from the incore inode. [5]

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- Q4) a) Explain the mapping of process virtual address space to physical address space in UNIX. [8]
- b) Explain the context of a process. [8]
- c) What is U area? List fields from the U area. [9]
- Q5) a) Explain the sequence of operations carried out during execution of fork. [8]
- b) What is a signal? Explain the types of signal. [9]
- c) Explain system calls for time. [8]
- Q6) a) Explain swapping of a process between swap space and main memory. [8]
- b) What is Demand paging? Explain Data Structure used for demand paging. [10]
- c) Explain the functions of terminal line discipline. [7]

