U.S.N ☐☐☐☐☐☐☐☐☐☐

P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belgaum)
Seventh Semester, B.E. - Electronics and Communication Engineering
Semester End Examination; Dec. - 2015
Operating System

Time: 3 hrs   *Max. Marks: 100*

*Note: Answer any **FIVE** full questions, selecting at least **TWO** full questions from each **part**.*

PART - A

1 a.	Discuss briefly about time sharing and multiprogramming operating system.	10
b.	Explain the term system call and booting in operating system.	8
c.	Define an operating system.	2
2 a.	Discuss in detail various issues in sharing a file.	8
b.	How does the DMA controller relieve the processor?	5
c.	Give the brief over view of Data Transfer Scheme.	7
3 a.	Describe the process states with the help of state diagram.	10
b.	Discuss the procedure of process creation and deletion in detail.	10
4 a.	What is meant by the terms : i) Critical region ii) mutual exclusion?	6
b.	Discuss Peterson's algorithm with its merits and demerits.	10
c.	What are Semaphores?	4

PART - B

5 a.	Discuss two ways in which the OS can recover from deadlock and list its merits and demerits.	10
b.	Describe bankers Algorithm to avoid a deadlock. What are the problems in its implementation?	10
6 a.	List the various page replacement algorithms and discuss any two among them.	10
b.	Discuss the page fault and how it is handled.	10
7 a.	Describe the different operations performed on file.	10
b.	Explain dynamic protection structures.	6
c.	What is encryption and decryption?	4
8 a.	Briefly explain : i) Mail boxes ii) Message Queues.	10
b.	Write short note on Inter process communication.	10

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