R09

B.Tech III Year II Semester (R09) Supplementary Examinations December/January 2014/2015
UNIX INTERNALS
(Computer Science and Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions
All questions carry equal marks
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1 (a) What is UNIX file system? Explain with an example.
  (b) Write a program that copies any given file supplied as an argument to it.

2 What is meant by retrieval of buffer? Briefly explain the scenarios for retrieval of a buffer.

3 (a) Briefly explain the *alloc* and *free* operations with examples.
  (b) Differentiate the read and search permissions on directories with relevant examples.

4 (a) Discuss the concepts of pipes with examples.
  (b) Discuss the concept of DUP system call.

5 (a) With the help of a neat diagram explain the process state transition diagram.
  (b) Give brief description about the layout of a kernel.

6 (a) Give brief description about the classification of signals.
  (b) Write and explain the algorithm to recognize a signal.

7 (a) With the help of a neat sketch, explain the mapping of process space onto the swap device.
  (b) Describe in detail about the allocation of swap space.

8 (a) What are the various system calls that are associated with shared memory? Explain them in detail.
  (b) Write a program to attach a shared memory twice to a process.

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