

Tilak Maharashtra University
Diploma in Engineering
SUB: Operating System + Unix
Year –TY Branch- E&TC Semester -6th

Assignment No: 3

1. Compare the circular wait scheme with the various deadlock avoidance schemes with respect to the following issues:
 - a) runtime overhead
 - b) system throughput

2. Consider a system consisting of m resources of the same type being shared by n processes. Resources can be requested and released by processes only one at a time. Show that the system is deadlock free if the following two conditions hold.
 - a) The maximum need of each process is between 1 and m resources.
 - b) The sum of all maximum needs is less than $m + n$.

3. The Linux source code is freely and widely available over the internet or from CD-Rom vendors. What are three implications of this availability for the security of the Linux system.

4. In what circumstances is the system call sequence for $k()$, $exe c()$ most appropriate? When is v for $k()$ preferable?

5. Linux is a version of UNIX that has gained popularity in recent years, elaborate on this.