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(AUTONOMOUS)
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DEPARTMENT OF INFORMATION TECHNOLOGY

Examination : B.Tech, V Semester   Branch   :   IT
Course name : Real Time Operating System   Course code :   17IT90
Faculty   : Dr. Anupriya Koneru   A.Y   :   2021-22

UNIT-IV

1. Assume that there are 5 processes, P0 through P4, and 4 types of resources.
   At T0 we have the following system state:

Max Instances of Resource Type A = 3 (2 allocated + 1 Available)

Max Instances of Resource Type B = 17 (12 allocated + 5 Available)

Max Instances of Resource Type C = 16 (14 allocated + 2 Available)

Max Instances of Resource Type D = 12 (12 allocated + 0 Available)

If the system is in a safe state, can the following requests be granted, why or
why not? Please also run the safety algorithm on each request as necessary.

   a. P1 requests (2,1,1,0)
   b. P1 requests (0,2,1,0)
2. How to recover the tasks from the deadlock?
3. Explain the Synchronization techniques during communication
4. Mention the reasons for queuing delay when a message is sent over Network
   communications

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