UGC NET 2018:

Suppose a system has 12 instances of some resources with n processes competing for that resource. Each process may require 4 instances of the resource. The maximum value of n for which the system never enters into deadlock is

A) 3

B) 4

C) 5

D) 6

Solution:

No. of instances = 12

Number of process is n.

Each process required 4 instance.

Lets,

Divide 12 instances into set of 4.

Set1 = 4

Set2 = 4

Set3 = 4

Set1+Set2+Set3 = 12

Now allocate each set to a process.

Process P1 = Set1

Process P2 = Set2

Process P3 = Set3

No other instance available for any next process.

So, the maximum value of n for which the system never enters into deadlock is 3.

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