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Quiz-2, Data Structure, Date: 1-12-2025, Section-B, Fall - 2025, Time: 20 Mins

1. You are given a sequence of characters representing department codes: S, E, C, U, R, E.

Construct a Doubly Linked list using the memory cells 120, 220, 320, 420, 520.

After construction:

a) Insert the character T after the node containing C.

b) Delete all occurrences of the character E from the list.

c) Add P as the new first element and draw the final circular linked list. [Marks: 2+2+2+2=8]

2. Differentiate between a **Circular Doubly Linked List** with sentinel value and a **Circular Linked List with Flag**. Provide **two differences** and include a **3-node example diagram** [marks:4]
3. A printer job scheduler maintains its waiting print jobs in a queue with maximum size 6.

Perform the following operations and draw the queue after each step:

I. Insert job IDs: 11, 22, 33, 44

II. Delete 5 jobs

III. Insert new job IDs: 11, 22, 33, 44, 55, 66, 77, 88, 99 [Marks:3]