

# BRAC University (Department of Computer Science and Engineering)

## CSE 220 (Data Structures) for Fall 2024 Semester

### Quiz 2

Student ID:

Section: 35

Full Marks: 20

Name:

Duration: 30 minutes

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1. Complete the following function which takes the head of a linked list as input, and prints the elements at the even indices of that linked list. Assume that the node class is given as follows. (10)

```
class Node:
    def __init__(self, elem, next):
        self.elem = elem
        self.next = next
```

```
def print_even_indices(head):
    ##complete this function
```

```
# Example input: 1 -> 2 -> 3 -> 4 -> 5 -> None
```

```
# Output:
```

```
# 1, 3, 5
```



2. You can assume your node class is given.

(10)

```
class Node:
```

```
    def __init__(self, elem, next, prev):
```

```
        self.elem = elem
```

```
        self.next = next
```

```
        self.prev = prev
```

Given a non-dummy headed doubly non-circular linked list, write a function that returns true if the given linked list is a palindrome, else false.

Example:

Input: 1  $\Leftrightarrow$  7  $\Leftrightarrow$  7  $\Leftrightarrow$  1  $\Leftrightarrow$  None

Output: True

Input: 1  $\Leftrightarrow$  7  $\Leftrightarrow$  4  $\Leftrightarrow$  5  $\Leftrightarrow$  None

Output: False