

Software Design & Analysis (CS3004)

Sessional-II Exam

Total Time (Hrs): 1
Total Marks: 30
Total Questions: 3

Date: April 3rd 2024

Course Instructor(s)

Mr. Aamir Raheem

BCS-6A

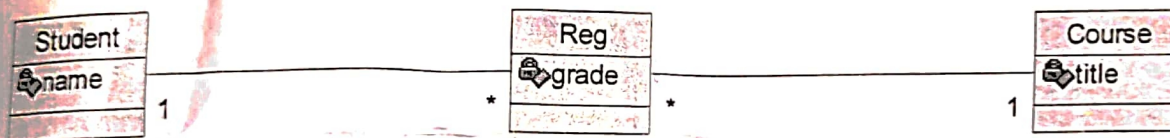
Roll No. Section Student Signature

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Solve question 1 on page 1, question 2 on page 2 and question 3 on page 3. Only the first three pages will be marked!

CLO 3: Use different UML notations for software design

Q1: Consider the following class diagram:



Now give a sequence diagram to compute names of all the students registered in a given course. You can add any functions required

CLO 4: Develop software design artifacts based on requirements specifications

Q2: Write a use case description to heat food in a microwave oven

CLO 2: Implement object-oriented principles for software analysis and design

Q3: Refactor (improve) the following design using SOLID principles. Also write the name(s) of the principle(s) used.

```
class Emp {
    int id;
    char* name;
    char* email;
    int day;           // date of birth
    int mon;
    int year;
    ...
};
```