

CS315: Quiz 2

Marks = 20; Time = 15 minutes

9th February, 2023

Roll: 200026

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Seat:

There are 4 questions in 2 pages. Answer in the question paper itself and return.
Write **SQL queries**.

Q1: [5 marks] Consider the following database, where primary keys are underlined, and foreign keys are italicized.

Employee(id, name, salary, *dept*)

Department(dno, name, *manager*)

Project = (pno, name, *dept*)

WorksOn = (*empid*, *pid*, hours)

For each department, list department id, name and maximum salary given to an employee in that department.

Q2: [5 marks] Use the same schemas from the previous question.

Find ids of employees who work in projects from different departments.

Q3: [5 marks] Consider the following database, where primary keys are underlined, and foreign keys are italicized.

Faculty(<u>fid</u> , name, <i>dept</i> , designation)	Department(<u>deptid</u> , <i>hod</i> , name)
Student(<u>roll</u> , name, <i>dept</i> , cpi)	Advisor(<u>roll</u> , <i>fid</i>)

Find dept ids whose heads do not advise any student.

Q4: [5 marks] Consider the following database, where primary keys are underlined, and foreign keys are italicized.

Branch(<u>bcode</u> , bname, city, assets)	Customer(<u>cid</u> , cname, city)
Account(<u>ano</u> , <i>bcode</i> , balance)	Depositor(<i>cid</i> , <i>ano</i>)
Loan(<u>lno</u> , <i>bcode</i> , amount)	Borrower(<i>cid</i> , <i>lno</i>)

Find ids of customers whose total loan amount is greater than their total account balance.