

National Institute of Technology Calicut
Department of Computer Science and Engineering
CS3095D DATABASE MANAGEMENT SYSTEMS LABORATORY

S5/S7 B.Tech. - Monsoon Semester 2022

End Semester Examination [25/11/22]

Part D
[Graph DB]
(Set A)

6 Marks

60 Minutes

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1. Design a graph database for a hospital with a set of patients and a set of medical doctors. Doctors do the checkup of the patients and tests performed by the doctor. Associate with each patient a log of the various tests and examinations conducted.
- a.** Write a CQL query to create three tables Patient, Doctor and Test. Create relationships between them. **(1.5)**

Patient

Patient_id	Name	Gender	Age
111	Alice	M	23
112	John	M	34
113	Lily	F	26

Doctor

Doctor_id	Name	Specialization
203	David	Orthopedics
324	Diya	Dermatology
345	Vijay	Pediatrics

Test

Test_id	Patient_id	Doctor_id	Test_name	Date	Result
23	112	203	Muscle injury	27/5/2022	p
45	111	324	psoriasis	12/6/2022	N
26	112	203	Stress fracture	28/5/2022	N
28	112	203	MRI	28/06/2022	P
34	113	345	asthma	12/6/2022	P

- b.** Name the doctor who has done the maximum test. **(0.75)**
- c.** Total test done on date 12/6/2022. **(0.5)**
- d.** Number of tests prescribed by the doctors for each of their patients. . **(0.75)**
- e.** Names of the doctors and their patients who have been prescribed any test in the month of May. [hint: use contains for string matching] **(0.75)**
- f.** Display the name of the doctors and the corresponding average age of patients for which they had prescribed Tests. **(0.75)**
- g.** Make the Test_id as Unique by putting constraints. **(0.5)**
- h.** Update the patient's results with Patient_id 112 from 'P' to 'N'. **(0.5)**