VIETNAM NATIONAL UNIVERSITY, HO CHI MINH CITY
UNIVERSITY OF TECHNOLOGY
FACULTY OF COMPUTER SCIENCE AND ENGINEERING

DISCRETE STRUCTURES FOR COMPUTING (CO1007)

Assignment

Relation - Counting - Probability and Graph

Advisor: Fullname
Students: Fullname of Student 1 - Student 1 ID numbers.
Fullname of Student 2 - Student 2 ID numbers.

HO CHI MINH CITY, SEPTEMBER 2020

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1 Member list & Workload

No.	Fullname	Student ID	Problems	Percentage of work
1	Lưu Quốc Bình	2033009	- Exercise 1 Bonus: 1, 2, 3. - Probability: 1, 2, 3.	30%
2	Nguyễn Văn B	19181717	- Relation & Counting: 4, 5, 6 Bonus: 4, 5, 6. - Graph: 1, 2, 3, Bonus: 1, 2, 3.	20%
1	Nguyễn Văn A	19181716	- Relation & Counting: 1, 2, 3 Bonus: 1, 2, 3. - Probability: 1, 2, 3.	30%
1	Nguyễn Văn A	19181716	- Relation & Counting: 1, 2, 3 Bonus: 1, 2, 3. - Probability: 1, 2, 3.	30%

2 Relation & Counting

2.1 Problem 1

Write on the report a very detailed introduction to the IVPs Sys. (3) and the formulae of its exact solutions for general a, b, c, and d and initial condition R0 and J0. Then complete Tab. 2 for all possible cases of eigenvalues of general 2 × 2 matrix A

2.1.1 Method of solving system of differential equations

Write on the report a very detailed introduction to the IVPs Sys. (3) and the formulae of its exact solutions for general a, b, c, and d and initial condition R0 and J0. Then complete Tab. 2 for all possible cases of eigenvalues of general 2 × 2 matrix

$$\det X = \begin{vmatrix} a & b & c \\ d & e & f \\ g & h & i \end{vmatrix}$$