

## Rubric of the Warm Up Project

Instructions:

- The students has to submit the project in the form of .pdf on LMS on or before 01.10.2022 (11:00 AM).
- The interviews will be conducted on 06 and 11 October as per schedule posted on website.

Following is the Rubric decided for the grading of warm-up-project.

### Problem 1.

Expressing the system of equations in the form  $x = xP \rightarrow 0.25$  marks

Expressing the system of equations in the form  $y = Ay \rightarrow 0.25$  marks

### Problem 2.

Finding basis for the column space and the row space of  $P$  by pen and paper  $\rightarrow 0.5$  marks

Finding basis for the column space and the row space of  $A$  by pen and paper  $\rightarrow 0.5$  marks

Writing Matlab code to find a basis of the column space of any matrix  $\rightarrow 0.5$  marks

Writing Matlab code to find a basis of the row space of any matrix  $\rightarrow 0.5$  marks

### Problem 3.

Finding a basis for the null space of  $(A - I)$  and  $B$  by pen and paper  $\rightarrow 0.5$  marks

Writing Matlab code to find a basis for the null space of any matrix  $\rightarrow 3$  marks

OR

If any one find the basis for the null space of any matrix using direct command in Matlab  $\rightarrow 0.5$  marks

(Please note that, if any student finding null basis using direct command then he/she will get only 0.5 marks out of 3.0 marks)

### Problem 4.

Writing Matlab code to find rref of any matrix  $\rightarrow 1.5$  marks

### Problem 5.

Writing Matlab code for Gauss Elimination of a system of equations  $\rightarrow 1.5$  marks

Writing Matlab code for Gauss Jordan Elimination of a system of equations  $\rightarrow 1$  marks