Mini report #1 (Advanced Automation) 2021.11.4

Student #: _____ Name: _____

[NOTICE]

- write by hand
- due date: 2021/11/10 17:00; place of submission: Ilias
- don't answer in approximated values (write $\sqrt{2}$ instead of 1.4142 , for example)

Let M be a matrix given as:

$$M = \begin{bmatrix} j & 0 \\ j & 1 \end{bmatrix}.$$

Answer the followings:

(1) $\bar{M}$

(2) M^*

(3) M^*M

(4) $\lambda_i(M^*M)$

(5) $\sigma_i(M)$

(6) $\bar{\sigma}(M)$