

**Jan 2023**

Q1. Which of the following options is/are true?

**Options :**

- A. If the rows of a  $3 \times 4$  matrix  $A$  are linearly independent, then  $AA^T$  is an invertible matrix.
- B. If the columns of a  $4 \times 3$  matrix  $A$  are linearly independent, then  $A^T A$  is an invertible matrix.
- C. If the rows of a  $3 \times 4$  matrix  $A$  are linearly independent, then  $A^T A$  is an invertible matrix.
- D. If the columns of a  $4 \times 3$  matrix  $A$  are linearly independent, then  $AA^T$  is an invertible matrix.