

## Determinants - Class XII

### Related Questions with Solutions

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#### Questions

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##### Question: 01

If  $A$  is a square matrix of order 3 such that  $A^2 + A + 4I = O$ , where  $O$  is the zero matrix and  $I$  is the unit matrix of order 3, then

- A.  $A$  is singular and  $A + I$  is non-singular
- B. Both  $A$  and  $A + I$  are non-singular
- C.  $A$  is non-singular and  $A + I$  is singular
- D. Both  $A$  and  $A + I$  are singular

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#### Solutions

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##### Solution: 01

$$A(A + I) = -4I$$

$$|A||A + I| = -64$$

Both  $A$  and  $A + I$  are non-singular

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#### Correct Options

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Answer:01

Correct Options: B