

Module 1 – Matrices

Before answering these questions, you must **shade** the ‘Matrices’ box on the answer sheet for multiple-choice questions and write the name of the module in the box provided.

Use the following information to answer Questions 1–8.

$$A = \begin{bmatrix} 4 & 6 \\ 2 & 7 \\ 3 & 4 \end{bmatrix} \quad B = \begin{bmatrix} -1 & 4 \\ -3 & 7 \end{bmatrix} \quad C = \begin{bmatrix} 2 & 1 \\ 0 & \frac{1}{2} \end{bmatrix} \quad D = \begin{bmatrix} 2 & 3 & 4 \\ 1 & 0 & 1 \end{bmatrix}$$

Question 1

The order of matrix A is

- A. 2×3
- B. 6
- C. 3×2
- D. 3×3
- E. 26

Question 2

$B + C$ is equal to

- A. $\begin{bmatrix} 1 & 5 \\ -3 & 7.5 \end{bmatrix}$
- B. $\begin{bmatrix} 3 & 5 \\ -3 & 7.5 \end{bmatrix}$
- C. $\begin{bmatrix} -3 & 3 \\ -3 & 6.5 \end{bmatrix}$
- D. $\begin{bmatrix} 1 & 3 \\ -3 & 7.5 \end{bmatrix}$
- E. $\begin{bmatrix} 1 & 5 \\ -3 & 6.5 \end{bmatrix}$

Question 3

Which one of the following matrix products is defined?

- A. D^2
- B. $AD + 2A$
- C. DB
- D. $(AD)^2$
- E. $(AB)^2$