## **Question Paper**

## **Topic 1: Mechanics**

Q1. A car is moving at a constant speed of 30 m/s. If the car accelerates at a rate of 2 m/s^2 for 5 seconds, what will be its final velocity?

Answer: 40 m/s

Explanation: Final velocity = Initial velocity + (acceleration \* time) = 30 m/s + (2 m/s^2 \* 5 s) = 40 m/s