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**Class: CSE12**  
**Subject: Physics**

Student Name: Charlie Brown  
Set: SET-003

Roll Number: 103  
Total Marks: 10

Duration: 200 minutes

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## General Instructions:

- Read all questions carefully before attempting.
  - Write your answers clearly and legibly.
  - Marks are indicated against each question.
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## QUESTIONS

**Q1.** Analyze the motion of a projectile launched at an angle of  $45^\circ$  with air resistance. [3 marks]

Answer:

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**Q2.** friction [4 marks]

Answer:

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**Q3.** Derive Einstein's mass-energy equivalence equation ( $E=mc^2$ ). [3 marks]

Answer:

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