

# Question Paper - Calculus

Difficulty: Medium Time: 25

**Q1. Q1. Let  $f(x) = x^3 + 3x^2$ . What is  $f'(x)$ ?**

- A)  $3x^2 + 6x$
- B)  $3x^2 + 2x$
- C)  $x^2 + 6x$
- D)  $6x^2 + 3x$

**Q2. Q2. Evaluate the indefinite integral  $\int 2x \, dx$ .**

- A)  $x^2 + C$
- B)  $2x + C$
- C)  $x + C$
- D)  $\ln|x| + C$

**Q3. Q3. Let  $f(x) = x^3 + 3x^2$ . What is  $f'(x)$ ?**

- A)  $3x^2 + 6x$
- B)  $3x^2 + 2x$
- C)  $x^2 + 6x$
- D)  $6x^2 + 3x$

**Q4. Q4. Evaluate the indefinite integral  $\int 2x \, dx$ .**

- A)  $x^2 + C$
- B)  $2x + C$
- C)  $x + C$
- D)  $\ln|x| + C$

**Q5. Q5. Let  $f(x) = x^3 + 3x^2$ . What is  $f'(x)$ ?**

- A)  $3x^2 + 6x$
- B)  $3x^2 + 2x$
- C)  $x^2 + 6x$
- D)  $6x^2 + 3x$

**Q6. Q6. Evaluate the indefinite integral  $\int 2x \, dx$ .**

- A)  $x^2 + C$
- B)  $2x + C$
- C)  $x + C$
- D)  $\ln|x| + C$