Total marks – 120
Attempt Questions 1–10
All questions are of equal value

Answer each question in a SEPARATE writing booklet. Extra writing booklets are available.

<div align="right">

Marks

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Question 1 (12 marks) Use a SEPARATE writing booklet.

(a) Evaluate, correct to three significant figures, **2**

$$\frac{5.8^2 - 3.1^3}{3 \times 3.1 \times 5.8}\ .$$

(b) Differentiate $x^3 + 2$. **2**

(c) Solve $x^2 = 5x$. **2**

(d) Integrate $\dfrac{3}{x}$. **1**

(e) Solve $3x - \dfrac{2x - 5}{2} = 6$. **3**

(f) Solve the pair of simultaneous equations **2**

$$x - 2y = 8$$
$$2x + y = 1\ .$$