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2. Given that $x = -\frac{1}{3}$ is a root of the equation

$$3x^3 + kx^2 + 33x + 13 = 0 \qquad k \in \mathbb{R}$$

determine

(a) the value of k,

(2)

(b) the other 2 roots of the equation in the form $a + ib$, where a and b are real numbers.

(4)

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Question 2 continued

Q2

(Total 6 marks)