|  |  |
| --- | --- |
| Question | Main points of expected responses |
|   |  | •1 2 •3 4 •5 6  |
|   | Format  Correct DifferentiationFormatCorrect DifferentiationFormat Any one Correct All Correct | •1 •2 **OR** •3 • 4 **OR** •5•6 **OR** •7  |
| 3 | FormatCorrect DifferentiationSubstitution and Answer | •1 •2  **OR** •3  |
|   | DifferentiationGradientCoordinateEquation | •1 •2 •3 •4  |
| 5 | •1 Initial Substitution•2  Answer•3 Initial Substitution•4  Answer | •1 •2 •3 •4   |
| 6   | •1 Rearrange•2  Two solutions for •3 All solutions for •4  Answer | •1 •2,3 •4  |

**Total 28 marks**