



Experimental Question 2
MARKING SCHEME

Exp. II-A:

- (1) θ_p - R data, calculate C 1.2 Points
 0.3 points per 60 degree: $0.3 \times 3 = 0.9$ points, transfer to C : 0.3 points
- (2) Plot 1.2 Points
 x-axis: 0.2, y-axis: 0.2, data plotting: 0.4, linear slope region: 0.2, symmetry: 0.2
- Subtotal: 2.4 Points**

Exp. II-B:

- (1) $R_{\max}$, $R_{\min}$, $C_{\max}$, $C_{\min}$ $0.1 \times 8 = 0.8$ points
- (2) $J_{\max}$, $J_{\min}$ $0.8 \times 2 = 1.6$ points
- (3) β 0.2 points
- Subtotal: 2.6 Points**

Exp. II-C:

- (1) R - I data, calculate C , and plot C versus I 1.3 Points
 R : 0.2, I : 0.2, C : 0.2,
 Plot: x-axis 0.2, y-axis 0.2, plotting 0.3
 Plot: data points at max.-slope 0.3 for more than 5 points, 0.2 for less than 5 points
- (2) Transfer to J - I plot 0.8 Points
 Transfer to J : linear part 0.2, maximum part 0.2
 Plot: x-axis: 0.1, y-axis: 0.1, plotting 0.2
- (3) G 1.0 Points
 Error of slope 0.5 Points
 ΔG 0.5 Points
- (4) η 0.5 Points
 $\Delta \eta$ 0.4 Points

Subtotal: 5.0 Points**Total: 10 Points**