

Solution

Sem-V / Mechatronics

Q.P. Code :- 09877

This is Theory subject, hence marking scheme as given below

- Q1. A] Static error — 2 marks
Precision, Reproducibility, Threshold — each 1 mark
- B] Hall Effect sensor diagram — 2 M
Explanation — 3 M
- C] Actuator range — 2 M
Power consideration — 3 M
- D] Block diagram showing each part clearly
— 5 M

- Q 2 A] Minimum 5 types of errors with example
— each error carry 2 marks

- B] Tachometer : Diagram — 3 M
Explanation — ~~5~~ 5 M
Limitations/ — 2 M
& advantages

- Q 3 A] Magnetic flow meter
Diagram — 3 M
Explanation — 5 M
Limitations/advantages — 2 M

- B] DC motor introduction — 2 M
Diagram — 3 M
Explanation — 5 M

Q 4 A] Minimum 5 difference points with proper justification —
each difference carry 2 marks

B] Introduction of acceleration measurement — 2 Marks

any one method - diagram — 3 Marks

explanation — 5 marks

Q 5 A] ~~Minimum~~
Introduction — 2 marks
Diagram — 3 marks
Explanation — 5 marks

B] Potentiometer working principle - 2M

Diagram — 3 marks

explanation — 5 marks

Q 6 Each note carry 6 to 7 marks
must contain diagram & Explanation