

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Explain Automatic controlled closed loop system.
- Q.4 Explain operation of stepper motor.
- Q.5 What is stability? Explain Routh. Hurwitz critrion.
- Q.6 Explain operation of closed loop control in detail.
- Q.7 Write short notes on
- (i) Steady state error.
 - (ii) Servo Mechanism.

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3rd Sem. / I.C. / E.I.

Subject : Basics of Control System / Control System

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1
- a) Dead time.
 - b) Error signal.
 - c) Stepper motor.
 - d) Loop.
 - e) Steady state error.
 - f) Transducer.
 - g) Generator.
 - h) Servomotor.

- i) 1st order system.
- j) Non Linear system.
- k) Block diagram.
- l) Settling time.
- m) Step function.
- n) Closed loop control.
- o) Relay.
- p) Signal flow graph.
- q) Motor.
- r) Comparator.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2 i) Explain the standard test signals.
- ii) Explain an electrical system.

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- iii) Discuss basic elements of control system.
- iv) What is Magnetic Amplifier?
- v) Explain control system terminology.
- vi) What do you mean by Block diagram?
- vii) Write short note on root locus.
- viii) What is servomotor? Explain.
- ix) Discuss 2nd order control system.
- x) Explain non-linear control system.
- xi) What is open loop control system? Explain.
- xii) Explain signal flow graph in brief.
- xiii) What is error constant?
- xiv) What is linear system?
- xv) Explain rise time and peak time?

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