

# CONTROL SYSTEMS (Common to EC/TC/EE/IT/BM/ML)

Written by Administrator  
Friday, 06 November 2009 14:31 -

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**Sub Code**

:

**06ES43**

**IA Marks**

:

**25**

**Hrs/ Week**

:

**04**

:

**Exam Hours**

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:

03

**Total Hrs.**

:

52

:

**Exam Marks**

:

100



**7 Hours**

**UNIT 4:**

**Stability analysis:** Concepts of stability, Necessary conditions for Stability, Routh- stability criterion, Relative stability analysis; More on the Routh stability criterion

**6 Hours**

**PART – B**

**UNIT 5:**

**Root–Locus Techniques:** Introduction, The root locus concepts, Construction of root loci.

**6 Hours**





1. **“Modern Control Engineering “**, K. Ogata, Pearson Education Asia/ PHI, 4<sup>th</sup> Edition, 2002.
2. **“Concepts of Control Systems”**, P. S. Satyanarayana; Dynaram publishers, Bangalore, 2001
3. **“Control Systems – Principles and Design”**, M. Gopal, TMH, 1999
4. **“Feedback control system analysis and synthesis”**, J. J. D’Azzo and C. H. Houpis; McGraw Hill, International student Edition.

**Question Paper Pattern:** Student should answer FIVE full questions out of 8 questions to be set each carrying 20 marks, **selecting at least TWO questions from each part**

**COVERAGE IN THE TEXT BOOK:**

**UNIT 1:** 1.1, 2.1, 2.2, 2.7

**UNIT 2:** 2.4, 2.5, 2.6, 2.7

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**UNIT 3:** 5.1, 5.2, 5.3, 5.4, 5.5

**UNIT 4:** 6.1, 6.2, 6.4, 6.5, 6.6

**UNIT 5:** 7.1, 7.2, 7.3

**UNIT 6:** 9.1, 9.2, 9.3, 9.4,

**UNIT 7:** 8.1, 8.2, 8.4, 8.5, 8.6

**UNIT 8:** 12.1, 12.2, 12.3, 12.6