



KHENTAWAS, FARRUKHNAGAR, GURGAON, HR

Department:

Academic Session: 2017-18 (Jan-June 2018)

Lesson Plan for the Semester started w.e.f 08.01.2018

Subject with code: Automatic Controls (ME-308-E)

Name of Faculty with designation : Surender Dhaka ( AP)

Month	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Academic activity	Test / assignment
January	09.01.2018 Monday	VI-ME-II	1	Introduction and Applications: Types of control systems ; Typical Block Diagram : Performance Analysis	.....	
January	10.01.2018 Wednesday	VI-ME-II	1	Applications – Machine Tool Control, Boiler Control, Engine Governing, Aerospace Control, Active Vibration Control; Representation of Processes & Control Elements – Mathematical Modelling.		2 Questions
January	12.01.2018 Friday	VI-ME-II	1	Block Diagram Representation, Representation of Systems or Processes, Comparison Elements; Representation of Feedback Control systems – Block Diagram & Transfer Function Representation		1 Question
January	16.01.2018 Monday	VI-ME-II	1	Representation of a Temperature Control System, Signal Flow Graphs, Problems.		2 Questions
January	17.01.2018 Wednesday	VI-ME-II		Revision of Unit 1		
January	19.01.2018 Friday	VI-ME-II	2	Types of Controllers: Introduction: Types of Control Action; Hydraulic Controllers; Electronic Controllers		2 Questions
January	23.01.2018 Monday	VI-ME-II	2	Pneumatic Controllers; Problems		
January	24.01.2018 Wednday	VI-ME-II		Revision of Unit 2		

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January	30.01.2018 Tuesday	VI-ME-II	3	Transient And Steady State Response: Time Domain Representation; Laplace Transform Representation		1 Question
January	31.01.2018 Wednesday	VI-ME-II	3	System with Proportional Control; Proportional – cum – Derivative control; Proportional – cum – Integral Control		2 Questions
FEB	02.02.2018 Friday	VI-ME-II	3	Error Constants; Problems		1 Question
FEB	06.02.2018 Tuesday	VI-ME-II		Revision of Unit 3		
FEB	07.02.2018 Wednesday	VI-ME-II	4	Frequency Response Analysis: Introduction; Closed and Open Loop Transfer Function; Polar Plots		1 Question
FEB	09.02.2018 Friday	VI-ME-II	4	Rectangular Plots; Nichols Plots: Equivalent Unity Feed Back Systems; Problems.		2 Questions
FEB	20.02.2018 Tuesday	VI-ME-II		Revision of Unit 4		
FEB	21.02.2018 Wednesday	VI-ME-II	5	Stability Of Control Systems : Introduction; Characteristic Equation; Routh's Criterion`		2 Questions
FEB	23.02.2018 Friday	VI-ME-II	5	Nyquists, Criterion, Gain & Phase Margins: Problems.		2 Questions
FEB	27.02.2018 Tuesday	VI-ME-II		Revision of Unit 5		
FEB	28.02.2018 Wednesday	VI-ME-II	6	Root Locus Method : Introduction; Root loci of a Second Order System; General Case; Rules for drawing Forms of Root loci		2 Questions
Mar	02.03.2018 Friday	VI-ME-II	6	Relation between Root Locus Locations and Transient Response; Parametric Variation; Problems.		1 Question
Mar	06.03.2018 Tuesday	VI-ME-II		Revision of Unit 6		
Mar	07.03.2018 Wednesday	VI-ME-II	7	Digital Control System : Introduction; Representation of Sampled Signal; Hold Device; Pulse Transfer Function;		2 Questions
Mar	09.03.2018 Friday	VI-ME-II	7	Block Diagrams; Transient Response; Routh's Stability Criterion; Root Locus Method;		2 Questions
Mar	13.03.2018 Tuesday	VI-ME-II	7	Nyquists Criterion; Problems.		1 Question
Mar	14.03.2018 Wednesday	VI-ME-II		Revision of Unit 7		

Month	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Academic activity	Test / assignment
Mar	16.03.2018 Friday	VI-ME-II	8	State Space Analysis Of Control Systems:Introduction; Generalized State Equation		1 Question
Mar	27.03.2018 Tuesday	VI-ME-II	8	Techniques for Deriving System State – Space Equations;Transfer Function from State Equations		1 Question
Mar	28.03.2018 Wednesday	VI-ME-II	8	Solution of State Vector Differential Equations; DiscreteSystems; Problems.		2 Questions
Apr	03.04.2018 Tuesday	VI-ME-II		Revision of Unit 8		
Apr	04.04.2018 Wednesday	VI-ME-II		Revision of Unit 8		
Apr	06.04.2018 Friday	VI-ME-II		Misc. Revision		
Apr	10.04.2018 Tuesday	VI-ME-II		Misc. Revision		
Apr	11.04.2018 Wednesday	VI-ME-II		Misc. Revision		
Apr	13.04.2018 Friday	VI-ME-II		Misc. Revision		