

## HASMUKH GOSWAMI COLLEGE OF ENGINEERING, VAHELAL

### SYLLABUS FOR MID SEM EXAM-SEPT-2018

#### ELECTRICAL ENGINEERING

SEM	Sub Code	Subject	Unit No (GTU Syllabus)	Unit Name(GTU Syllabus)
7TH	2170901	Inter Connected Power System	1,2,3	Unit 1 :Introduction Unit 2 : Power system matrices Unit 3 : Load flow studies
	2170913	Industrial Instrumentation	1,2,3,4,5,6,7	Unit 1 :Transducers Unit 2: Strain gauge and Strain Measurement Unit 3 : Displacement measurement Unit 4 : Forces and Torque Measurement Unit 5: Pressure Measurement Unit 6: Flow Measurement Unit 7: Level Measurement
	2170908	Switch Gear and Protection	1,2,3,4,5,6,10,11,12	Unit 1: Introduction to Protective Relaying and electromagnetic relays Unit 2: Over Current Protection of Transmission line Unit 3: Differential Protection Unit 4: Transformer Protection Unit 5: Distance Protection of Transmission line Unit 6: Carrier aided protection of transmission lines Unit 10: Theory of circuit Interruption Unit 11: Circuit Constant in Relation to Circuit Breaking Unit 12:Theory & Practice of Conventional Circuit Breaker and modern circuit breakers
	2170909	Design of ac machine	1,2,3,4	Unit 1 :DESIGN OF THREE PHASE INDUCTION MOTOR Unit 2 : DESIGN OF SINGLE PHASE INDUCTION MOTOR Unit 3 : DESIGN OF SYNCHRONOUS MACHINE Unit 4 : APPLICATION OF FINITE ELEMENT METHOD IN DESIGN
SEM	Sub Code	Subject	Unit No (GTU Syllabus)	Unit Name(GTU Syllabus)
5TH	2150903	Power Electronics-1	1,2	UNIT: 1 Power semiconductor devices UNIT: 2 Thyristor fundamental
	2150904	Elements of Electrical Design	1,2,3	Unit 1:GENERAL DESIGN ASPECTS Unit 2:DESIGN OF STARTERS Unit 3:Armature Windings:
	2150908	Electrical Power System – I	1,2,5,6	Unit 1 : Supply Systems Unit 2 : Mechanical Design of Transmission Lines Unit 5 : DC and AC distribution Unit 6 : Representation of power system component
	2150907	Microprocessor and Microcontroller Architecture & Interfacing	1,2,3,4,5,6	Unit 1 : REVIEW OF LOGIC DEVICES AND MEMORIES Unit 2 : MICROPROCESSOR BASED SYSTEM Unit 3 : 8085 MICROPROCESSOR Unit 4 : 8051 MICROCONTROLLER ARCHITECTURE Unit 5 : INTRODUCTION TO PROGRAM DEVELOPMENT TOOLS Unit 6 :8051 ASSEMBLY LANGUAGE PROGRAMMING
	2150909	CONTROL SYSTEM ENGINEERING	1,2,4,5,6,7,8	Unit 1 :Introduction to Control Systems Unit 2: Mathematical Models of Systems Unit 4 : Feedback Control System Characteristics Unit 5 : The Performance of Feedback Control Systems Unit 6: The Stability of Linear Feedback Systems Unit 7: The Root Locus Method Unit 8: Frequency Response Methods
SEM	Sub Code	Subject	Unit No (GTU Syllabus)	Unit Name(GTU Syllabus)
3RD	2130901	Circuits & Networks	1,2,7	Unit 1 : Circuit Variables and Circuit Elements and Sources Unit 2 : Nodal Analysis and Mesh Analysis of resistive Circuits Unit 7 : Laplace transform analysis and circuit applications
	2130903	ELECTRICAL MEASUREMENTS AND MEASURING INSTRUMENTS	1,2	Module 1, Module 2
	2130902	Analog Electronics	1,2	UNIT: 1 Diode and transistors UNIT: 2 Op amp basics and linear applications
	2130904	DC MACHINE AND TRANSFORMER	3	UNIT: 3 Transformers (single phase and three phase both)
	2130002	ADVANCED ENGINEERING MATHEMATICS	2,3,5	Unit 2: FOURIER SERIES AND FOURIER INTEGRAL, Unit 3: ORDINARY DIFFERENTIAL EQUATION (UP TO LAST LECTURE), Unit 5: LAPLACE TRANSFORM
	2130004	ENGINEERING ECONOMICS AND MANAGEMENT	1,2,3,4,5	Unit: 1(A) Introduction to Economics Unit: 1(B) Theory of Demand and Supply Unit: 2(A) Theory of Production Unit: 2(B) Cost and Cost Concepts Unit: 3(A) Market
SEM	Sub Code	Subject	Unit No (GTU Syllabus)	Unit Name(GTU Syllabus)
<b>3RD PG</b>	2730707	PQMT	1,2,3	Unit 1 : POWER QUALITY TERMINOLOGIES Unit 2 : HARMONICS AND POWER ELECTRONIC CONVERTERS Unit 3: EFFECT OF HARMONICS ON ELECTRICAL APPARATUS