Part-I

Class: S.Y (Autonomous)

Course code & Course Title: BSC204 Linear Algebra & Transform

Course Outcomes

	By the end of the course the student will be able to:
CO1	Find Laplace Transform of the given function
CO2	Make use of Complex Number to find roots, separate complex quantities and establish relation between circular and hyperbolic functions
CO3	Apply Matrix Technique to find solutions of system of linear equations
CO4	Use Probability Distribution to find probability
CO5	Apply higher order Linear Differential Equations in electrical and mechanical systems
CO6	Apply Inverse Laplace Transform to initial value problems

CO-PO/PSO Mapping

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	3								1				1		
CO2	2											1	1		
CO3		3	3	2								1		1	
CO4	3											1	1		
CO5		3	3	2								1		1	
CO6	3												1		
AVG															

Class: S.Y (Autonomous)

Course: EED202Electrical Measurement & Instrumentation

Course Outcomes

CO1	Recall the characteristics of Measuring Instruments.
CO2	Classify diverse electrical instruments based on their types & application with advantages & disadvantages
CO3	Solve the problems based on measuring instruments
CO4	Analyse the construction & working of different electrical measuring instrument
CO5	Experiment with the electrical devices for measuring power & resistances
CO6	Test the calibration of electrical measuring instruments.

CO-PO/PSO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2											1	1		
CO2		1										1	1	1	1
CO3	1	1			1	1						1	1	2	1
CO4	2	1			1	1						1	1	2	
CO5	2	1			2							2	1		2
CO6	1	2	2	1								2	1	2	2
AVG															

Class: S.Y (Autonomous)

COURSE NAME-EED201 Electrical Machine-I

Course Outcomes

	By the end of the course the student will be able to:
CO1	Define fundamentals of transformer and DC Machines.
CO2	Compare various parameters of electric machines.
CO3	Identify and organize characteristics of different electric machines.
CO4	Analyse circuit model of electric machines.
CO5	Justify various electric machines.
CO6	Construct the control operation and formulate various tests on electric machines.

CO-PO/PSO Mapping

	PO 1	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**PO 8**	**PO 9**	**PO10**	**PO11**	**PO12**	**PSO 1**	**PSO 2**	**PSO 3**
CO 1	2	2	1										2		1
CO 2	1	1	2										1		1
CO 3	1		1										1		
CO 4	2			2										1	1
CO 5	1	1											1		
CO 6	1	1											1		
AVG	1.3	1.3	1.3	1.5									1.2	1	1

Class: S.Y (Autonomous)

Course: EED203 Analog Electronics

Course Outcomes

	By the end of the course the student will be able to:
CO1	Define the parameters of Solid-State devices (I. Remembering)
CO2	Illustrate the Characteristics of Analog Devices (II. Understand)
CO3	Identify applications of Analog devices. (III. Apply)
CO4	Survey the analog devices used in various applications (IV.Analyze)
CO5	Demonstrate the experimental setup to determine parameters of analog devices. (II Understand)
CO6	Build small analog circuits using semiconductor devices. (III. Apply).

CO-PO/PSO Mapping

	PO1	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**PO 8**	**PO 9**	**PO1 0**	**PO1 1**	**PO1 2**	**PSO 1**	**PSO 2**	**PSO 3**
CO1	2	-										2			
CO2	2	2										2			
CO3	2	-										2			
CO4	2	-										-			
CO5		-			**2**							2			
CO6	2	2										2			
AVG															

Class: S.Y (Autonomous)

Course: EED224 Fundamentals of MATLAB Programing

Course Outcomes

	By the end of the course the student will be able to:
CO1	To be able to use MATLAB for demonstration of various arithmetic and logical operations.
CO2	To be able to apply knowledge of MATLAB in analysis of Electrical Engineering Circuits.

CO-PO/PSO Mapping

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	2		1	2	2					1		1	1	2	
CO2	2	2	2		2					1		1	2	2	2
AVG															

Class: S.Y (Autonomous)

Course: EED225 Data Analytics

Course Outcomes

	By the end of the course the student will be able to:
CO1	Write a program using R script
CO2	Understand regression, classification and clustering model

CO-PO/PSO Mapping

	PO1	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**PO 8**	**PO 9**	**PO1 0**	**PO1 1**	**PO1 2**	**PSO 1**	**PSO 2**	**PSO 3**
CO1		2											2		
CO2		2											2		
AVG															

Part-II

Class: S.Y (Autonomous)

Course: BSC251A Complex Variable & Vector Calculus

Course Outcomes

	By the end of the course the student will be able to:
CO1	Find the Fourier transform of given function
CO2	Express the function in Fourier series in different intervals
CO3	Discuss the function of complex variables
CO4	Make use of partial derivatives for differentiation of vector functions
CO5	Evaluate vector integral by Stoke's theorem &Gauss theorem
CO6	Solve the difference equations by z-transform.

CO-PO/PSO Mapping

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	2	1											1		
CO2	2	1											1		
CO3	2	1											1		
CO4	2	1													
CO5	2	1											1		
CO6	2	1											1		
AVG	2	1											1		

Class: S.Y (Autonomous)

Course: EED 251 Electrical Machins-II

Course Outcomes

	By the end of the course the student will be able to:
CO1	Describe operation of various types of AC machines. (remembering)
CO2	Outline the performance of AC Machines for studying the torque-speed characteristics. (Understand).
CO3	Formulate different tests for calculating the performance parameters of three phase induction motors. (Analyze)
CO4	Calculate equivalent circuit models of AC electric machines. (Apply)
CO5	Illustrate the electromagnetic laws for the operation of three phase synchronous (understand)
CO6	Identify and compare AC machines as per applications. (Analyze).

CO-PO/PSO Mapping

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**												**1**		
CO2		**3**	**2**	**2**										**1**	
CO3	**3**	**3**	**2**										**1**	**1**	
CO4	**3**	**2**	**2**	**2**									**1**	**1**	
CO5	**3**		**2**										**1**		
CO6	**3**		**3**										**1**		
AVG	**3**	**2.6**	**2.2**	**2**									1	1	

Class: S.Y (Autonomous)

Course: EED 252 Network Analysis

Course Outcomes

	By the end of the course the student will be able to:
CO1	List circuit laws and simplify the network using reduction technique.
CO2	Interpret the circuits using Kirchhoff's laws and network simplification techniques.
CO3	Solve transient response, steady state response, network function.
CO4	Derive maximum power transfer to the load and analyze the different circuits.
CO5	Evaluate network circuit parameters and validate them.
CO6	Design the circuits using network synthesis in time and frequency domain.

CO-PO/PSO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	-	-									2		-
CO2	3	2	-	1									3	2	-
CO3	2	1	-	-									2	-	-
CO4	1	1	-	-									2	-	-
CO5	2	2	-	-									2	-	2
CO6	2	1	2	1										3	2
AVG	**2**	**1.5**	**2**	**1**									**2.2**	**2.5**	**2**

Class: S.Y (Autonomous)

Course: EED 253 Signal & System

Course Outcomes

	By the end of the course the student will be able to:
CO1	Memorize the fundamentals of Signals and systems.
CO2	Outline the properties of systems using transforms (Laplace transform, Z-transform and Fourier transform)
CO3	Make use of fundamentals for analysis of the signals and systems
CO4	Analyse the systems using transform tools.
CO5	Compare the various signals and systems
CO6	Test the signals and system using MATLAB based tools

CO-PO/PSO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2											1	1		
CO2		2										1	1	1	1
CO3	1	2			1	1						1	1	2	1
CO4	2	1			1	1						1	1	2	
CO5	2	1			2							2	1		2
CO6	1	2	2	1								2	1	2	2
AVG															

Class: S.Y (Autonomous)

Course: EED 281 Professional Elective-I-Digital Electronics

Course Outcomes

	By the end of the course the student will be able to:
CO1	Examine the different number system and perform the conversion among different number system
CO2	Perform arithmetic operations on signed and unsigned binary numbers
CO3	Minimize the logical expression using Boolean Algebra and k-map method
CO4	Realize combinational circuits for given logical expression
CO5	Design and analyze synchronous and asynchronous sequential circuits using filp-flops
CO6	Examine the characteristics of various logic families

CO-PO/PSO Mapping

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	1												1		
CO2		2											1		
CO3			1										1		
CO4			2		1								1		
CO5		1											1		
CO6				1									1		
AVG	**1**	**1.5**	**1.5**		**1**								**1**		

Class: S.Y (Autonomous)

Course: EED 283 Renewable Energy Source

Course Outcomes

	By the end of the course the student will be able to:
CO1	Define various sources of energy (Remember)
CO2	Explain the operation of biomass, wind & solar energy with its techniques. (Understand)
CO3	Recall knowledge about working principle of photovoltaic cell (Remember)
CO4	Identify the economics of RES(Remember)

CO-PO/PSO Mapping

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
CO1	1												1		
CO2	2												2		
CO3		2											1		
CO4			1		2								1	1	
AVG															