Department of Freshman Engineering

Basic Electrical & Electronics Engineering

Code Engineering Branch IT Course Type Theory Category Science L-T-P 3-0-0 Prerequisites Nil Continuous 30 Semester End Evaluation 70 Total 100 Internal Evaluation Course Outcomes 100 Marks 100 Course and the basic concepts of DC circuits, Electrical Machines, Concepts of Electronic Devices and Circuits and realize the Applications of Electrical & Electronics in Interdisciplinary Engineering Domains (L2) Apply the basic knowledge of mathematics, science and electrical engineering to obtain the desired parameters of Electric circuits and Machines. (L3) CO3 Analyse the behaviour of Electric circuits, transformers and Electrical machines. (L4) CO4 Apply the basic prioriples of Electronic to Solve Analog Circuits. (L3) CO5 Analyse the characteristics/ performance parameters of Electronic Circuits, and Electronic Devices and Circuits and submit a report. Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3/High, 2: Medium, 1:Low) PO1 PO2 PO3 PO6 PO7 PO8 PO9 PO10 PO1 PO2 PO3 PO6 PO7 PO8 PO9	Course			20ES	1101	Year		Ι		Sem	Semester			Ι			
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4 Semiconductor Devices : P-N Junction diode - Basic operating principle, current- CO1,CO4,	4									C	01.CO4						

PVP20

PVP20

Department of Freshman Engineering

	voltage characteristics, half-waverectifier, full-waverectifier, rectifiers with filter capacitor, Zener diode as Voltage Regulator.	CO5,CO6					
5							
5	Operational Amplifiers: The Ideal Op Amp, The Inverting Configuration-The	001 001					
	closed loop gain, Effect of Finite open-loop gain, The Non-inverting	CO1,CO4,					
	Configuration - The closed loop gain, Characteristics of Non Inverting	CO5,CO6					
	Configuration, Effect of finite open loop gain, The voltage follower.						
	Learning Resources						
Text Bo	oks						
1. I	D.P.Kothari, I.J.Nagrath, Basic Electrical and Electronics Engineering, 1 st Editio	n, McGraw Hill					
I	Education (India) Private Limited, 2017.						
2. 1	B.L.Theraja, Fundamentals of Electrical Engineering and Electronics, 1 st Edition, S.C	Chand Publishing,					
1	New Delhi, 2006.	-					
3. 1	3. Millman Jacob, Halkias C Christos, Electronic Devices and Circuits, 2 nd Edition, Tata Mcgrawhill						
I	Publications, 2007.						
Referen	ce Books						
1. \$	S.K. Bhattacharya, Basic Electrical and Electronics Engineering, Pearson Education, 20	11.					
2. I	Dharma Raj Cheruku, B T Krishna, Electronic Devices and Circuits, 2 nd Edition, Pearson Education,						
	2008.	, ,					
3. I	3. R.K.Rajput, Basic Electrical and Electronics Engineering, University Science Press, New Delhi, 2012.						
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	http://202.53.81.118/course/view.php?id=122						
	https://nptel.ac.in/courses/108105112/						