Integrated Bachelor – Masters Programme

B.Sc.-M.Sc. (Electronics) Semester I

Course Code	IS01CELE52	Title of the Course	Electronics Practicals-I
Total Credits of the Course	01	Hours per Week	03

Course Objective	To make students familiar with the (i) Fundamental concepts of Basic Electronic Components. (ii) Electronic Components measurement techniques. (iii) Use of Laboratory Measuring Instruments. (iv) Development of laboratory Skills.

Course Content		
UNIT	Description	Weightage* %
1	1. Study of Basic Components : Identification and Connection. 2. Study of Diode Characteristics. 3. Study of Zener Diode Characteristics. 4. Study of Logic Gates –I : AND, OR, NOT. 5. Study of LOGIC Gates –II : NOR, NAND, X-OR, X-NOR . 6. Practical Exercise on Number System.	100

Teaching-Learning Methodology	Demonstration of Laboratory Practicals Problem / design based approach. Question-Answer discussion and evaluation through Viva for each practical.

Evaluation Pattern		
Sr. No	Details of Evaluations	Weightage* %
1	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2	Internal Continuous Assessment in the form of Practical, Viva Voce, Quizzes, Seminars, Assignments, Attendance (as per CBCS R6.8.3)	15%
3	University Examination	70%

Course Outcome. Having completed this course, the learner will be able to	
1	Know and obey sound laboratory practices.
2.	Work independently in the laboratory.
3.	Understand the use of measuring instruments.
4.	Identify the basic discrete electronic components and its technical specifications.
5.	Know the Measurement and use of basic components.
6.	Understand the working and Characteristics of Basic Electronic Components.

Suggested References:	
Sr. No.	References
1	Practical Electronics Ralph Morrison, John Wiley &Sons Inc.
2	Electronics Fundamentals and Applications P C Chattopadhyay, D.Rakshit, New Age International Publishers.
3	Experiments Based on Analog&Digital Electronics Geeta Bhatt, Geeta Mongia.

On-line resources to be used if available as reference material
On line resources:
1. https://swayam.gov.in/
2. https://blog.mide.com/how-electronic-components-work
3. https://www.electronicshub.org/basic-electronic-components/
4. https://www.build-electronic-circuits.com/basic-electronic-components/