

HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

CBCS - Semester - Grading Pattern
B. Sc. :: PHYSICS :: SEMESTER-II

Elective (Subject) Courses
ES PHY-02

Electronic circuit elements And Energy Sources
(In force from June 2020)

UNIT-I PASSIVE CIRCUIT ELEMENT

RESISTOR : Generals(6.1), Resistor type, Wire wound resistor, Carbon composition resistor, Carbon film resi. , Cermet film resi. , Metal film resi., Power resi. , Value tolerance , Variable resistor , Potentiometer and Rheostats , Fusible resi. , Resistor color , Resi. Colour band , Resi under ten ohm , Resi. Troubles , Checking resistor with ohmmeter.

INDUCTOR : Inductor , Comparison of different coils , Inductance of an inductance , Another definition of inductance, Mutual inductance, Coefficient of coupling, Variables inductors , Inductor in series and parallel without M , Series combination with m , Stray inductance , Energy storage magnetic field, DC Resistance of coils ,

CAPACITOR : Capacitors , Capacitor connect to battery , Capacitance , Factors controlling capacitance , Type of Capacitors , Fixed Capacitor , Variable capacitors , Voltage rating of capacitors , Stray circuit cap. Leakage resistance , Troubles Capa. , Checking capa. With ohm meter ,

UNIT—II ENERGY SOURCES

CELLS AND BATTERY

Primary and Secondary cells and Batterys , Voltage and current of cell , Cell life , Different type of dry cells , Carbon zink cell , Alkaline cell , Manganese alkaline cell , Nickel cadmium cell , , Mercury cell , Silver oxide cell , Lead acide cell , Battery rating , Testing dry cell , Photo electric cell , Solar cell

TRANSFORMER: Transformer working , Transformer impedance, Can a Trans. Operate on DC , RF Shielding , Auto Transformer

Book- Basic Electronics by B. L. Theraja , Pub. S. Chand & Compny 3rd Edition