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FORMAT FOR SYLLABUS DEVELOPMENT OF SKILL DEVELOPMENT COURSE

TITLE OF THE COURSE :

ELECTRICAL APPLIANCES MAINTAINENCE AND DESIGNING OF BASIC LAB

EQUIPMENTS

Nodal Department of HEI to run course	
Broad Area/Sector	
Sub-Sector	Electrical & Electronics
Nature of Course	Repairing
Name of Suggestive Sector Skill Council	Independent
Aliened NSQF level	Laboratory Workshop
Expected Fees	5
Stipend to student expected from Industry	
Number of seats :	
Course Code : _____	Credit 03 (1 Theory /2 Practical)
Max Marks : 100 Min Marks :	
Name of Proposed Skill Partner	
Job Opportunities	Lab Technician
Syllabus :	

Unit	Topics	General/Skill	Th/Prac/Internshi p/Training	No. of Theory hours	No. of Practical hours
1	Principles of Basic Electricity and Electronics	General	Theory	04	00
2	Domestic Wiring and Repairing of Common Domestic Instruments	General	Theory+Practical	02	15
3	Formation of Halfwave and Fullwave rectifier	Skill	Theory + Practical	02	15
4	Formation of Power Supply	Skill	Theory + Practical	02	15
5	Basics of Digital Circuits	General	Theory	04	00
6	Formation of Digital Circuits	Skill	Theory + Practical	01	15
TOTAL				15	60

Suggested Readings : Any graduation level book related to electrical and electronics

Course Pre-requisite : Student must have Physics in 10+2

Suggested Continuous evaluation methods : Internal Assesment

COURSE NAME: ELECTRICAL APPLIANCES MAINTAINENCE AND DESIGNING OF BASIC LAB EQUIPMENTS

COURSE OUTCOMES: After completion of course Student should be able to:

1. Apply safe working practices.
2. Individually maintain house held machinery equipment.
3. Identify parts of electrical equipment from its drawing.
4. Make small laboratory equipments
5. Repair laboratory instruments
6. Hands on Digital Electronics circuits.

UNIT NO.	UNIT NAME	DETAILED SYLLABUS	THEORY HOURS	PRACTICAL HOURS	REMARKS
1	Basic Electrical and Electronics	Demonstrate basic on different electrical components Demonstrate electricity, electron theory, and Elements of free electrons, fundamental terms & definitions, units and effects of electric current. Demonstrate on different electronics components Demonstrate about Basic electronics, color code, types and characteristics of resistors. Demonstrate Variable resistors, Passive electronic components	04	00	
	Domestic Wiring and Repairing of Common Domestic Instruments	Demonstrate on types of wiring Do industrial wiring and maintenance. Do domestic wiring and maintenance. Demonstrate of repairing of common electrical appliances	02	15	
	Hands on Half Wave and Full Wave Rectifier	Demonstrate the students about the formation of half wave and full wave rectifiers using diode and also provide knowledge about the calculation of their efficiencies, ripple factor and other valuable terms.	02	15	
	Hands on Formation Power Supply	Demonstrate students about the power supply and its formation in physics laboratory using transformer, diodes etc.	02	15	
	Basics of Digital Circuits	Demonstrate students about the basic working of different logic gates as well as different logic circuits formed with the help of common gates	04	00	
	Hands on Digital circuit formation	Demonstrate the students about the formation of logic gates, their repairing and also formation of different other digital circuits like half adder, full adder, half sub tractor, full sub tractor, parity checker etc.	01	15	
Total:			15(1 credit)	60(2 credit)	

Suggested Books :

1. Practical Physics by Jerry D Wilson , Saunders College Publication, Philadelphia, New York
2. Digital Electronics by Dr. B.K.Gupta and V. Singhal, S.K.Kataria & Sons
3. Basic Practical Physics by Harnam Singh, S.Chand & Co.
4. Basic Electricity handbook Vol-I, Digital Handbook