

Marks	Grade Point	Letter Grade	Marks	Grade Point	Letter Grade
80>	4.00	A+	55-59	2.75	B-
75-79	3.75	A	50-54	2.50	C+
70-74	3.50	A-	45-49	2.25	C
65-69	3.25	B+	40-44	2.00	D
60-64	3.00	B	0-39	0.00	F

Mark Distribution (for 150 Marks)			
Theory Marks		Practical Marks	
Midterm	20	PC	-
Class test	05	PF	-
Quiz test	05	-	-
Final	30	-	-
Total	60	Total	-

Class Timing Distribution	
Particulars	Time
Greeting with students	10 Minutes
Previous Class Review	10 Minutes
Present Class Topic Discussion and Lecture Delivery	60 Minutes
Present Class Topics Review	10 Minutes

Daffodil Polytechnic Institute, Institute Code: 50238

Lesson Plan – Academic session:

Subject Name : Electrical Appliances
 Subject Code : 26732
 Technology : Electrical
 Semester : 3rd
 BTEB Text Book Name : (Publisher: HAQUE PUBLICATION)

Reference Books: 1. HAQUE PUBLICATION)

OBJECTIVES:

- 1.To develop understanding and skill on the construction and operation of electrical appliances based on heating principle
- 2.To develop understanding and skill on the construction and operation of appliances operated by electric motor
- 3.To enable to acquire skill/competence in diagnosing/localizing faults and repairing & servicing of electrical appliances

SHORT DESCRIPTION:

Electric iron; Electric heater; Rice cooker; Electric Kettle; Geyser; Electric fan; Rechargeable (Emergency) lamp; Vacuum Cleaner; Blower; Dehumidifier; Blender; Washing machine; Refrigerator; Air conditioner; Microwave oven.

Date	Lecture	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipment's
	01	Basic principle of electric appliances.	1.1.1 State the meaning of electric appliances. 1.1.2 List the names of appliances based on heating principles. 1.1.3 List the names of the appliances operated by electric motor.	After the Class, Students will be able to basic principle of electric appliances.	1) Basic Class Materials & 2) Projector 3) Fan, Iron
	02	Electric iron.	2.1 Define electric iron. 2.2 List different types of electric irons. 2.3 Difference between an ordinary and an automatic electric iron. 2.4 Identify different parts of an electric iron.	After the Class, Students will be able to know about electric iron.	1) Basic Class Materials & Projector Youtube: https://www.youtube.com/watch?v=c-mbW-liG6Q
	03	Electric iron.	2.5 State the operating principles of an electric iron. 2.6 Explain the operation of thermostat in an automatic electric iron. 2.7 List the possible faults and their causes and remedies of an electric iron.	After the Class, Students will be able to know about electric iron.	1) Basic Class Materials & Projector Youtube: https://www.youtube.com/watch?v=c-mbW-liG6Q
	04	Electric heater	3.1 Define electric heater. 3.2 List different types of electric heater. 3.3 List different parts of a room heater, surface heater and water heater.	After the Class, Students will be able to know about electric heater.	1) Basic Class Materials & Projector Youtube: https://www.youtube.com/watch?v=9zj01L-wBmU
	05	Electric heater.	3.3 List different parts of a room heater, surface heater and water heater. 3.4 List the possible faults and their causes and remedies of an electric heater.	After the Class, Students will be able to know about electric heater.	1) Basic Class Materials & Projector Youtube: https://www.youtube.com/watch?v=9zj01L-wBmU

Date	Lecture	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipment's
	06	Lab-1	Perform maintenance and servicing an electric iron	After the Class, Students will be able to maintenance and servicing an electric iron.	1) Flat screw driver, Heating element, Thermostat, Neon tester, A.V.O meter.
	07	Rice cooker	4.1 Define rice cooker. 4.2 Describe the function of a rice cooker. 4.3 List the main parts of a rice cooker. 4.4 List the possible faults and their causes and remedies of a rice cooker.	After the Class, Students will be able to know about rice cooker.	1) Basic Class Materials & Projector Youtube: https://www.youtube.com/results?search_query=electric+rice+cooker+repair
	08	Electric Kettle	5.1 State Principle of operation of electric Kettle. 5.2 List deferent parts of electric Kettle. 5.3 List the possible faults and their causes and remedies of an electric kettle.	After the Class, Students will be able to know about electric kettle.	1) Basic Class Materials & Projector Youtube: https://www.youtube.com/watch?v=WjZMdsfjgXw
	09	Lab-2	2 Perform maintenance and servicing of different types of electric heaters.	After the Class, Students will be able to maintenance and servicing of different types of electric heaters.	An electric heater
	10	Review Class	Review Class of Lecture 1 to 8 (Regarding students problem)	Through the review class, students can solve their problem	Basic Class Materials
	11	Lab-3	3 Perform repair and maintenance of a rice cooker.	After the Class, Students will be able to repair and maintenance of a rice cooker.	Rice cooker

Date	Lecture	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipment's
	12	Quiz Test 1 Class Test 1	Examination Topic: Chapter 1,2,3,4 Examination mark: 10,20 Passing Mark: 04	Through Quiz Test students will learn the intellectual intelligence on the topics discussed.	1) Basic Class Materials 2) Examination Khata
	13	Geyser.	6.1 Define geyser. 6.2 List the different parts of geyser. 6.3 Mention the safety precaution of Geyser. 6.4 List of possible faults and causes and their remedies of a geyser.	After the Class, Students will be able to know about geyser.	1) Basic Class Materials & Projector Youtube: https://www.youtube.com/watch?v=bNDjJ0C7RWA
	14	Lab -4	4 Perform the operation of a Geyser	After the Class, Students will be able to know the operation of a Geyser	A Geyser
	15	Table fan/pedestal fan.	7.1 Define table fan/pedestal fan. 7.2 Describe the function of a table fan/pedestal fan. 7.3 List different parts of a table fan/pedestal fan. 7.4 List various components of an electronic fan regulator. 7.5 State the operation of an electronic fan regulator. 7.6 List the possible faults and their causes and remedies of a table fan/pedestal fan.	After the Class, Students will be able to know about table fan/pedestal fan.	1) Basic Class Materials & Projector Youtube: https://www.youtube.com/watch?v=bNDjJ0C7RWA
	16	Rechargeable (emergency) lamp.	8.1 Define rechargeable lamp. 8.2 Explain the working principle of a rechargeable lamp. 8.3 Name the different parts of a rechargeable lamp. 8.4 List the possible faults and their causes and remedies of a rechargeable lamp.	After the Class, Students will be able to know about rechargeable lamp.	1) Basic Class Materials Projector Youtube: https://www.youtube.com/watch?v=bNDjJ0C7RWA
	17	Lab-5	5 Perform the operation and maintenance of an Electric Kettle.	Through the review class, students can know the operation and maintenance of an Electric Kettle.	An Electric Kettle

Date	Lecture	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipment's	
	18	Review Class	Review Class of Lecture 13,15,16 (Regarding students problem)	Through the review class, students can solve their problem	Basic Class Materials	
	19	Quiz Test 2	Examination Topic: Chapter 5,6,7,8 Examination mark: 10 Passing Mark: 04	Through Quiz Test students will learn the intellectual intelligence on the topics discussed.	3) Basic Class Materials 4) Examination Khata	
	20	Class Test 2	Examination Topic: Chapter 5,6,7,8 Examination mark: 20 Passing Mark: 08	Through class tests students will learn to evaluate themselves on their own.	2) Basic Class Materials 3) Examination Khata	
	21	All Mid Syllabus Review				
Mid Exam						
	22	Vacuum cleaner.	9.1 Define vacuum cleaner. 9.2 State the working principle of a vacuum cleaner. 9.3 Name the different parts of a vacuum cleaner. 9.4 List the possible faults and their causes and remedies of a vacuum cleaner.	After the Class, Students will be able to know about vacuum cleaner.	1) Basic Class Materials & Projector. Youtube: https://www.youtube.com/watch?v=bNDjJ0C7RWA	
	23	Lab-6	6 Perform repair and maintenance of an oscillatory type fan.	After the Class, Students will be able to repair and maintenance of an oscillatory type fan.	An oscillatory type fan.	
	24	Electric blower.	10.1 State the working principle of an electric blower. 10.2 Name the different parts of an electric blower. 10.3 List the possible faults and their causes and remedies of a electric blower.	After the Class, Students will be able to know electric blower.	1) Basic Class Materials Projector. Youtube: https://www.youtube.com/watch?v=bNDjJ0C7RWA	
	25	Lab-7	7 Perform repair and maintenance of a rechargeable (emergency) lamp.	After the Class, Students will be able to repair and maintenance of a		

Date	Lecture	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipment's
				rechargeable (emergency) lamp.	
	26	De-humidifier.	11.1 State the principle of operation of a dehumidifier. 11.2 Name different parts and their function of a dehumidifier. 11.3 Sketch the circuit diagram of a de-humidifier. 11.4 List the possible faults and their causes and remedies of a de-humidifier.	After the Class, Students will be able to know about dehumidifier.	1) Basic Class Materials Projector. Youtube: https://www.youtube.com/watch?v=bNDjJOC7RWA
	27	Lab_8	8 Perform repair and maintenance of an electric blower.	Through the review class, students can repair and maintenance of an electric blower.	
	28	Blender.	12.1 State the principle of operation of a blender. 12.2 List the different parts of a blender. 12.3 State the function of the timer in a blender. 12.4 List the possible faults and their causes and remedies of a blender.	After the Class, Students will be able to know about blender.	1) Basic Class Materials Projector. Youtube: https://www.youtube.com/watch?v=bNDjJOC7RWA
	29	Washing machine	13.1 Define washing machine. 13.2 List the different types of washing machine 13.3 State the working principle of operation of a washing machine.	After the Class, Students will be able to know about washing machine.	1) Basic Class Materials Projector. Youtube: https://www.youtube.com/watch?v=bNDjJOC7RWA
	30	Lab-9-10	9 Perform repair and maintenance of a vacuum cleaner. & 10 Study a dehumidifier.	After the Class, Students will be able to repair and maintenance of a vacuum cleaner. And also know dehumidifier.	
	31	Washing machine	13.4 List the different parts of a washing machine.	After the Class, Students will be able to know about a washing machine.	1) Basic Class Materials & Projector

Date	Lecture	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipment's
			13.5 Explain the function of the timer in a washing machine. 13.6 List the possible troubles and their causes and remedies of a washing machine.		
	32	Refrigerator.	14.1 Define the refrigerator. 14.2 List of different components of the refrigerator. 14.3 State the function of different components of refrigerator 14.4 List the possible faults and their causes and remedies of a refrigerator.	After the Class, Students will be able to know about refrigerators.	1) Basic Class Materials & 2) Projector
	33	Class Test 3 Quiz Test 3	Examination Topic: Chapter 9,10,11,12, Examination mark: 20 Passing Mark: 08	Through class tests and Quiz Test students will learn to evaluate themselves on their own	4) Basic Class Materials 5) Examination Khata
	34	Lab-11	11 Perform repair and maintenance of a blender & 12 Perform repair and maintenance of a washing machine.	Through tests students will learn to evaluate themselves on their own	A blender & A washing machine
	35	Review Class	Review Class of Lecture (Regarding students problem)	Through the review class, students can solve their problem	1)Basic Class Materials
	36	Lab-12	Lab Exam	Through tests students will learn to evaluate themselves on their own	
	37	Air conditioner.	15.1 State the principle of operation of an air conditioner. 15.2 List different parts of an air conditioner. 15.3 State the function of filter, ducts and grills, air-conditioning circuit, control, cooling unit and electrical control unit. 15.4 List the possible electrical faults and their causes and remedies of an air conditioner.	After the Class, Students will be able to know about air conditioning.	1) Basic Class Materials Projector

Date	Lecture	Chapter/ Exam / Industrial Visit	Learning Area	Learning Outcome	Class/Lab Supporting Equipment's
	38	Microwave oven.	16.1 Describe the function of a microwave oven. 16.2 List the main parts of a microwave oven. 16.3 List different parts of heat control and timer in an oven. 16.4 Describe the function of heat control and timer in an oven. 16.5 List the possible faults and their causes and remedies of a microwave oven.	After the Class, Students will be able to know about microwave.	1) Basic Class Materials
	39	Class Test 4 Quiz Test 4	Examination Topic: Chapter 13,14,15,16 Examination mark: 20 Passing Mark: 08	Through class tests students will learn to evaluate themselves on their own	6) Basic Class Materials 7) Examination Khata
	40	Presentati on	Short presentation by individual student.	Be confident on practical life.	Laptop, projector
	41	MODEL TEST	All Syllabus	After the Class, Students will be highly confident for Final exam	Basic Class Materials
	42	Final Exam Syllabus Review			
	43	Final Exam Syllabus Review			