

SECTOR - ELECTRONICS AND HARDWARE
JOB ROLE: FIELD TECHNICIAN AND OTHER HOME APPLIENCES
QP CODE: ELE/Q3104
CLASS - X

Total No of Topics - 24
Total No of Topics Deducted from four section - 5
% of (Total no of topics) = 20.83 %
20.83% Reduction Of Sector as Follows - (Theory and Practicals need to drop out are highlighted in red color)

Sr. No	List Of Units	List of Practicals Aligned With Each Unit	Unit/Session to be reduced(Theory and Practical)	Remark(Reason for dropping or reduce)
UNIT 1:	Electrical Components and Motors			
SESSION 1	<ul style="list-style-type: none"> • Relay, parts of relay, • Types of relay, • Circuit breaker, • Fuse – types, use of fuses and its rating. 	<ul style="list-style-type: none"> • Identify the different parts of a relay, • List the equipment using relay for circuit production, • Identify the different parts of circuit breakers, • List the different parameters of circuit breaker. • Identify the parts of fuse 		Lesson will complete in 7 hours. So 1 hour reduction of this lesson
SESSION 2	<ul style="list-style-type: none"> • Electric field and magnetic field, • Electromagnetic induction, • Fleming’s left hand rule and right hand rule, • Lenz law, • Lorentz law, • Winding, • Winding types – wave winding and lap winding, 	<ul style="list-style-type: none"> • Draw a magnetic field of bar • Demonstrate an experiment to show electromagnetic induction, • Demonstrate the Fleming’s left hand and right hand rule • Identify the gauge of winding wire, • Dismantle the motor and identify the winding of motor 	<ul style="list-style-type: none"> • Electric field and magnetic field, • Fleming’s left hand rule and right hand rule, 	THE vocational students of EH are study electric field and magnetic field,flemming's rule in 10th science book and also reduction of 4 hour for this correction.the total lesson will cover in 8 hour

SESSION 3	<ul style="list-style-type: none"> • Introduction to motor, • Parts of motor, • Types of motor, • Working principle of motor, • RPM of motor, • Functioning of motor 	<ul style="list-style-type: none"> • Dismantle the given motor and identify the different parts of motor, • Identify different types of motor, • Read and list specifications mentioned on the motor, • Measure the RPM of motor 	<ul style="list-style-type: none"> • Parts of motor, 	Parts of Motor also Study in science of class 10th.also reduction of 2 hour for this correction.the total lesson will cover in 8 hour
UNIT 2:	Repair and Maintenance of Mixer/ Juicer/ Grinder			
SESSION 1	<p>Different Models of appliances (mixer/ juicer/ grinder), their features and functioning,</p> <ul style="list-style-type: none"> • functioning of various electromechanical parts of the mixer/grinder • Frequently occurring faults such as abnormal noise during use, jars 	<p>Demonstrate the usage of mixer/grinder,</p> <ul style="list-style-type: none"> • Demonstrate to diagnose the fault on initial inspection, • Perform basic tests – power supply, volt ampere test and earth test power supply, • Demonstrate to separate and inspect every module of the unit, • Perform in depth diagnosis in service centre 		Lesson will complete in 14 hours. So 1 hour reduction of this lesson
SESSION 2	<ul style="list-style-type: none"> • Components/modules of different mixer/ juicer/ grinder, • Other products of the company. 	<ul style="list-style-type: none"> • Demonstrate to replace damaged component such as relay or thermostat • Demonstrate to remove and replace the faulty module with a functional one at PCB level 	<ul style="list-style-type: none"> • Other products of the company. 	As Per the Daily news and paper advt. students known the different model of company. So vt and subject expert decide to reduce it.Iso reduction of 1 hour for this correction.the total lesson will cover in 7 hour
SESSION 3	<ul style="list-style-type: none"> • Reassembly process of the mixer/ juicer/ grinder, • Factors confirming the proper functioning of the repaired/ replaced part or unit of the mixer/ juicer/ grinder, • Cleaning and maintenance process of mixer/ juicer/ grinder 	<ul style="list-style-type: none"> • Demonstrate to reassemble the mixer/ juicer/ grinder, • Demonstrate and confirm functionality of the repaired mixer/ juicer/ grinder, • Demonstrate the cleaning procedures of mixer/ juicer/ grinder. 		no reduction in this lesson

UNIT 3	Repair and Maintenance of Microwave Oven			
SESSION 1	<ul style="list-style-type: none"> • Different models of microwave ovens, their features and functionalities, • Functioning of microwave oven and its various modules, • Functioning of various electromechanical parts of the microwave, • Troubleshooting knowledge with respect to microwaves • Frequently occurring faults such as intermittent heating, no heating, timing problem, display problem. 	<ul style="list-style-type: none"> • Demonstrate the usage of pattern of the microwave, • Diagnose the fault based on initial inspection, • Perform basic tests – power supply, volt ampere test and earth test power supply, • Demonstrate to separate and inspect every module of the unit, • Frequently occurring faults, • Perform in depth diagnosis in service centre 		no reduction in this lesson
SESSION 2	Components/modules of different microwaves <ul style="list-style-type: none"> • Energy ratings, BEE rating and concepts of e-waste, • Other products of the company 	Demonstrate to replace component for identified fault, <ul style="list-style-type: none"> • Demonstrate to remove and replace the faulty module with a functional one at PCB level. 	Other products of the company	As Per the Daily news and paper advt. students known the different model of company. So vt and subject expert decide to reduce it. Iso reduction of 1 hour for this
SESSION 3	<ul style="list-style-type: none"> • Reassembly process of the microwave oven, • Factors confirming the proper functioning of the repaired/ replaced part or unit of the microwave oven, • Cleaning and maintenance process of microwave oven 	<ul style="list-style-type: none"> • Demonstrate to reassemble the microwave oven, • Demonstrate and confirm functionality of the repaired microwave oven, • Demonstrate the cleaning and maintenance procedures of microwave 		no reduction in this lesson
UNIT 4	Maintain Health and Safety			

SESSION 1	<ul style="list-style-type: none"> • Safety precautions to be taken while installation, repair and maintenance of appliances, • Packaging waste disposal procedures, • Safety rules, policies and procedures, • Hazards, their causes and prevention/personal safety 	<ul style="list-style-type: none"> • Demonstrate to take safety precautions to be taken while installation, repair and maintenance of appliances, • Demonstrate the packaging waste and its disposal, • Observe safety rules, policies and procedures, • Demonstrate to avoid hazards during repairs, using tools and materials. 	<ul style="list-style-type: none"> • Packaging waste disposal procedures • Demonstrate the packaging waste and its disposal, 	<p>It is not necessary now to study manage waste material for EH trade. also reduction of 2 hour for this correction.the total lesson will cover in 8 hour</p>
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