

GUJARAT TECHNOLOGICAL UNIVERSITY

Hotel Management & Catering Technology

B. E. SEMESTER: V

Subject Name: Hotel Engineering & Maintenance

Subject Code: 153306

UNIT	Course Content	Weightage	Hrs.
1.	HOTEL MAINTENANCE MANAGEMENT • Types of Maintenance • Scope Department Function • Replacement • Swimming Pool Maintenance	05	2
2.	ENGINEERING DEPARTMENT • Organizational Structure • Duties and Responsibilities of Chief Engineer • Maintenance Order Form	05	2
3.	FUELS • Different Fuels • Advantages and disadvantages • Precautions while using gas a Fuel in Hotel Industry • Heat • Bunsen Burner • Thermal and Calorific Value • Construction of Industrial Gas Range	10	10
4.	ELECTRICITY • Conductor, Insulator, Ohms Law, Volt, AC,DC, Single Phase, Three Phase • Voltage Drop and Control, Circuit Break, Cost Control. • Energy Conservation Tips for Hotels • Energy Conservation Tips in Housekeeping • Energy Conservation Tips in Kitchen • Energy Conservation Tips in Food and Beverage outlets • Energy Conservation tips for Other areas • Close and open Circuit • Precautions while handling electrical appliance • Importance of earthing • Basic Circuit Properties in Series and Parallel • Bill Calculations of Power Consumption	20	20
5.	FIRE PREVENTION AND PROTECTION • Fire Triangle • Types of Fire • Different Fire Extinguishers • Fire fighting Equipments Recommended for Hotels • Fire Hazards • Smoke detector • Fire Alarm • Water Sprinkler	05	3

6.	POLLUTION AND POLLUTION CONTROL • Pollutant • Air pollution • Water pollution • Noise Pollution • Pollution Control Measure	10	5
7.	EQUIPMENT REPLACEMENT POLICIES • Reasons • Types of Failure Mechanism of Equipments • Replacement of items that fails all of a sudden	05	5
8.	HEAT, VENTILATION, AIRCONDITIONING AND REFRIGERATION • Ventilation-Need, Types • Air-conditioning System-Need, periodical Maintenance-Centralized air-conditioning, Split Air-Conditioner, Package Air-Conditioner, Window type Air Conditioning System • Refrigeration-Needs, Periodical Maintenance, Difference Between Air conditioning and refrigeration, Types of refrigeration system, Walk in coolers, Refrigeration Cycle. • Heat-designing Building as to Control Heat and heat transfer	20	20
9.	WATER AND WASTE WATER MANAGEMENT • Sources of water • Water Supply System • Importance of water • Removal of Hardness • Water Quality Standard • Treatment of Water for Hotel Use • Hot and cold drinking water requirement supply and standard • Waste water disposal system adopted	10	15
10	SANITARY SYSTEM • Sink • Basin • Water Seal • Water Closet • Types of Flushing Cisterns • Inspection Camber • Importance of Inspection Chamber	10	15

Text Books: Hotel Engineering; by Sujit Ghosal – Oxford University Press.