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DETAILED SYLLABUS

FOR

DISTANCE EDUCATION

**DIPLOMA IN FIRE SAFETY AND
HAZARD MANAGEMENT
(DFSHM)**

COURSE TITLE: DIPLOMA IN FIRE SAFETY AND HAZARD MANAGEMENT.

DURATION : 1 YEAR

MODE : YEARLY

FIRST YEAR

COURSE TITLE	Paper Code	MARKS				
		THEORY		PRACTICAL		TOTAL
		INTERNAL	EXTERNAL	INTERNAL	EXTERNAL	
FIRE & SAFETY - I		40	60			100
FIRE & SAFETY - II		40	60			100
FIRE ALARM AND FIRST AID		40	60			100
INDUSTRIAL SAFETY AND MANAGEMENT LAWS		40	60			100
PRACTICAL				40	60	100

FIRE & SAFETY – I

UNIT - 01

INTRODUCTION - BASIC PHYSICS - BASIC CHEMISTRY.

UNIT - 02

APPLIED MECHANICS - FLUID MECHANICS - HYDRAULICS.

UNIT - 03

COMBUSTION - CHEMICAL REACTION - CLASSIFICATION ON FIRE - CAUSES OF FIRE

UNIT - 04

DEFINITION OF FIRE - EXTINCTION METHOD - HIGH RISK BUILDING

UNIT - 05

SPECIAL FIRE - AIRCRAFT FIRE - FIRE IN OIL REFINERIES - SHIP FIRE - ELECTRIC FIRE.

UNIT - 06

GAS FIRES - RURAL FIRE.

UNIT - 07

SALVAGE - SPECIAL SERVICES - HOSE AND HOSE FITTINGS - PUMP AND PUMP OPERATIONS.

UNIT - 08

FIXED FIRE FIGHTING INSTALLATION – EXTINGUISHERS

UNIT - 09

EXTINGUISHER TYPES - CHEMICAL, DILUTED CHEMICAL SOLUTION.

UNIT - 10

DRY POWDER EXTINGUISHER

UNIT - 11

HYDRAULIC AND HYDRANT FITTINGS

UNIT - 12

PRECAUTIONARY METHODS TO ADOPT - FIRE - INJURY - PATIENTS -
SAFETY METHODS IN INDUSTRIAL - PETROLEUM COMPLEXES -
CHEMICAL AGENT USED.

FIRE & SAFETY – II

UNIT - 01
WATER - CHEMICAL STRUCTURE - PROPERTIES

UNIT - 02
WATER DEMAND CALCULATION - WATER TENDER

UNIT - 03
SMALL GEAR - WATER RELAY –VALVES

UNIT - 04
HOOK LADDER - ESCAPER LADDER.

UNIT - 05
ROPES LINES.

UNIT - 06
BREATHING APPARATUS - FOR FIRE FIGHTER - AND PATIENTS.

UNIT - 07
BUILDING CONSTRUCTION - SAFETY TO FIRE ACCIDENTS

UNIT - 08
STATION ADMINISTRATION - WATCH ROOM PROCEDURE.

UNIT - 09
VEHICLES - FOR FIRE ACCIDENT AND SAFETY

UNIT - 10
WATER - MOTORS - COMPRESSIONS FOR FIRE

UNIT - 11
LATEST TECHNOLOGY DEVELOPMENTS IN EQUIPMENTS FOR FIRE
FIGHTING.

UNIT - 12
WATCH ROOM - RECORD MANAGERMENTS

FIRE ALARM AND FIRST AID

UNIT - 01

FIRE ALARM - PRINCIPLES OF FIRE DETECTORS

UNIT - 02

CONTROL LAND INDICATING EQUIPMENTS - INTRUDER ALARM.

UNIT - 03

STANDARDS - DETECTORS AND ARCHITECT - ACTION FOLLOWING AN ALARM – MANUAL CALL POINTS.

UNIT - 04

FIRST- AID - INTRODUCTION - PRINCIPLES OF FIRST -AID - SPLINTS.

UNIT - 05

FIRST AID TREATMENT FOR DROWNING

UNIT - 06

ARTIFICIAL RESPIRATION - DISLOCATION - WOUNDS - TYPES OF POISON – BANDAGES

UNIT - 07

ELECTRICAL ENGINEERING AND ELECTRONICS - DIRECT CURRENT CIRCUITS

UNIT - 08

METHODS FOR STEP ELECTRICAL FIRES

UNIT - 09

INDUCTIVE RESISTANCE - IMPEDANCE - VACUUM TUBE - RECTIFICATION - AMPLIFICATION

UNIT - 10

TRANSISTOR FUNDAMENTALS

UNIT - 11

SEMICONDUCTOR DIODES - JUNCTION TRANSISTOR - PNP - TRANSISTOR - TRANSISTOR AMPLIFICATION - TRANSISTOR OSCILLATORS - SEMI CONDUCTOR PHYSICS.

UNIT - 12

CRYSTAL STRUCTURE - EFFECT OF TEMPERATURE ON INTRINSIC SEMICONDUCTOR - EXTRINSIC SEMICONDUCTORS.

INDUSTRIAL SAFETY AND MANAGEMENT LAWS

UNIT - 01

FUNDAMENTALS OF INDUSTRIAL SAFETY - IMPORTANCE OF SAFETY INDUSTRY

UNIT - 02

SAFETY POLICY - ENFORCEMENT OF RULES - WORK PERMITS SYSTEM - FAULT TREE ANALYSIS.

UNIT - 03

DAMAGE CONTROL - PLANT SAFETY INSPECTION SAFETY AUDIT - SAFETY INVENTORY SYSTEM - SAFETY SURVEYS.

UNIT - 04

INDUSTRIAL HYGIENE - OCCUPATIONAL DISEASES - PERSONAL PROTECTIVE EQUIPMENTS.

UNIT - 05

CONTROL OF INDUSTRIAL NOISE - LIGHTNING - HEAT AND VENTILATION

UNIT - 06

SAFETY IN PETROLEUM INDUSTRY - SAFETY IN CHEMICAL INDUSTRY - SAFETY IN USE OF ELECTRICITY

UNIT - 07

SAFETY IN CONSTRUCTION WORK - INDUSTRIAL PSYCHOLOGY IN ACCIDENT PREVENTION

UNIT - 08

INDUSTRIAL SAFETY MANAGEMENT

UNIT - 09

SAFETY LAWS - ROLE OF GOVERNMENT IN INDUSTRIAL SAFETY

UNIT - 10

SAFETY ORGANIZATION AND SAFETY COMMITTEE - SAFETY EDUCATION AND TRAINING FOR ALL - SAFETY SUGGESTION SCHEME - ROLE OF AUDIO VISUAL AIDS - ROLE OF TRADE UNIONS IN SAFETY.

UNIT - 11

FACTORIES ACT, 1948 - THE INDIAN ELECTRICITY ACT, 1910 - THE WORKMAN COMPENSATION ACT, 1923 - THE EMPLOYEES STATE INSURANCE ACT, 1948 - EXPLOSIVE ACT, 1884

UNIT - 12

INDUSTRIAL DISPUTE ACT, 1947

PRACTICAL

UNIT - 01

- 1.STUDY OF - SQUARED DRILLS
- 2.HOUSE DRILL - HOSE-TYPES AND FUNCTION
- 3.FITTING SMALL GEAR - EXTINGUISHERS TYPES AND APPLICATION
- 4.PRACTICAL PUMP OPERATIONS - PUMP DRILL - FOAM DRILL
- 5.WATER TENDER DRILL - PICKING UP DRILL RESCUE FROM HEIGHT
- 6.LADDER DRILL
- 7.KNOTS AND LINES - BREATHING APPARATUS TYPES AND APPLICATION
- 8.ARTIFICIAL RESPIRATION - PRACTICES AND APPLICATION
- 9.FIRST AID - RESCUE-TO VARIOUS SITUATIONS
- 10.INSPECTION OF EQUIPMENTS BY FIRE ENGINEER
- 11.ROUTINE MAINTENANCE OF EQUIPMENTS
- 12.VISITS OF STUDENTS DOING WITH - FIRE FIGHTING PLACES WITH - FIRE FIGHTING SQUAD