

GROUP-30

Fire Operator cum Driver (Level- 10+2 and holding license in H.M.V. Driving)

1) General awareness, Reasoning, Mathematics, Science, History including Haryana related history, current affairs, literature, Geography, Civics, Environment, Culture etc.-

(Weightage 20%)

2) Computer terminology, Fundamentals, word software, excel software, Power point, internet, web browsing, Communication, emails, downloading and uploading data on websites etc. -

(Weightage 10%)

3) Subject related syllabus-

(Weightage 70%)

1. Building Construction

Introduction, Importance of Subject, Definition of Some Terms, Classification of Building, Building Material & their behavior in fire, Importance of fire escape with respect to their positioning, construction and provisioning of firefighting measures, Fire Zones, Temporary Buildings,

2. Fixed Fire Fighting Installation

Introduction, Type of sprinklers, Type of installation, Principal of Automatic sprinkler, Testing and Maintenance, Drenchers System, Rising Mains, Hose reel, Down Comer, High Expansion foam, CO₂, Halons, Automatic Fire Alarm System

3. Rural Fire

Introduction, Type of Fires, Characteristic Features, Cause of Fires in Rural Areas, Hay Stacks, Factors effecting firefighting, Appliances and equipment, Survey

4. Aircraft Fire and Rescue

Introduction, General information required in EVE Crash, General Principal of Rescue Operation, Quickest means of entrance to aircraft, After Entry in Aircraft, General principles or Fire Fighting.

5. Ship Fires

Introduction, Glossary of Shipping Terms, Passenger Ship, Cargo Ship, Large Tanker and Combination Carriers

6. Escapes

Introduction, Elements of Escape routes, External Staircase or Fire Escapes, Spiral Fire Escape, Roof Exit, Fire Tower, Ramps, Doorways, Revolving Doors, Corridors and Passageways, Horizontal Exits, Exit Requirements, Horizontal Exit Allowance.

7. Foam and Foam Making equipment

Introduction, Area of Application, Chemical Foam, Mechanical Foam, Foam Concentrate, Types of Foam Concentrates, Storage of Foam Concentrates, Action of Work, Properties of Foam, Foam Making equipment

8. Hose

Introduction, Types of Hoses, Material Used, Non- Percolating Hose, Hose reel Hose, General Operational Misuse of Hose, Cleaning and Drying, Standard Test

9. Small Gear

Introduction, Conventional Tools, Specialized equipment, Miscellaneous Special Tools and Equipment, Lifting Equipment, Lamps and Lighting Sets.

10. Ladders

Introduction, Construction, Precautions, Maintenance, Terminology, Standard Test, Care and Maintenance, Safety Devices, Acceptance Test, Round Test.

11. Pump & Pump Operation

Introduction, Classification of Common Types in Use, Construction, Disadvantages, Advantages, Method of Priming, Testing and Fault Finding, Care and Maintenance, Standard Tests.

12. Water Tender

Introduction, Types of Water Tender, Use of Water Tender, Fire Pumps, Hose reel and Hose and its Function, Provision of a Fire way Valve and its Operation, Ladder, Spurge Pipe, Fabrication of Water Tender as per ISS 950 and Its Important features.

13. Practical Firemanship

Introduction, Qualification of a Good Fireman, Duty at Station Level, On way to Fire, On Reaching Fire Ground, Bringing the Fire Under Control, Ventilation, On return to station from a Fire, At Fire Ground- Practical-Fire Fighting, Finding the Fire, Signs of Building Collapse, Method of Entry, Rescue, Working in darkness, Working in Smoke, Working in an Atmosphere of inflammable gas leaking, Rescuing a man caught in electric wires.

14. Hose Fittings

Introduction, Couplings, Branches and Nozzles, Collecting Heads and Suction Hose fittings, Breechings, Adaptors, Miscellaneous Hose fitting, Hose ramps.

15. Basic Physics and Chemistry

Introduction, Combustion, Heat, Fuels, Acid, Explosion,

16. Electricity

Introduction, Fundamentals of Electricity, Generation and Distribution of Electricity, Common Causes of Electrical Fires and Remedial Measures, Static Electricity and its Hazardous.

17. Hydraulics

Introduction, Pressure and Head, Pressure and Flow, Menstruation, Nozzle Discharge, Water Requirement.

18. Hydrant and Fittings

Introduction, Water Distribution System, Type and Construction of Hydrants, Parts of Hydrants, Hydrant Gear and equipment, Marking, Testing, Care and Maintenance, Operation of Hydrants, Flow Gauges

19. Water Relay

Introduction, Method, Standard Distance between Pump and Relay, Operation, Hose laying lorry, Communication.

20. Breathing Apparatus

Introduction, Types and Parts of Breathing Apparatus, Testing and Maintenance Procedure, Care and Maintenance of Cylinder.

21. Chemical Extinguishers

Introduction, Classification of Fires, Suitability of Extinguishers for Different types of fire, Type of Fire Extinguishers, Uses, Testing, Safety Devices, Discharge Performance, Advantage and Disadvantages, Types of Dry Powder.

22. First Aid & Resuscitation

Method of approach and subsequent treatment in cases of shock, wound, burn, bleeding, fractures and respiration failures.

23. Introduction, Qualities of First-Aid, Duties of First Aider, Body Parts and Systems, Injuries Encountered in Fire Incidents, Burns and Scalds, Signs and Symptoms, Management, Wounds and Hemorrhage, Bleeding and infection, Management, Fractures, Observation of Patient, Frost Bite, Snake Bite, Resuscitation.

24. Watch Room Procedure

Introduction, Constituents of Communication, Watch Room, Control Room, General Requirements, equipment, Station Ground, Turn Out Ground, Telephone Call area, Mobilizing Boards, The Log or Occurrence Book, Fireless Apparatus, Handling of a Fire Call.

25. Salvage

Introduction, Equipment for Salvage Work, Method of Use, Salvage work at Fire.

26. Station Administration

Introduction, Executive Duties, Administrative Duties, Station Discipline.

27. Special Services

Introduction, Lift Rescue, Rescue from Sewers, Road and Highway Accidents, Operational Procedure, Rescue from Collapsed building, Survey, Stages of Rescue, Rescue from Well, Rescue of Animals.

28. Discipline

Introduction, Importance of Discipline, General Principle, Essentials of Disciplinarian, Outward Signs.

Important Note: The Weightage as mentioned against the syllabus is tentative & may vary.