

SYLLABUS & WEIGHTAGE FOR
COMPUTER BASED TEST
ADVERTISEMENT No: 12/2026/CHQ/DR-CBT

MANAGER (FIRE SERVICES)

Total Marks: 120

Duration: Two hours

Part-A

General Knowledge, General Intelligence,
General Aptitude, English etc.

Weightage 50%

Part-B

Questions on subjects relating to
Educational Qualifications

Weightage 50%

S.No	Subject
1.	FIRE SCIENCE PHYSICS:- Mechanics : Newton's Law of motion, Compressive units of mass, Relative Gravity Weight, Force, Momentum, Pressure, Power Heat:- Temperature, Temperature Scales and their Relative Calculation of specific Heat, Latent Heat of vaporization, Coefficient of linear Expansion, Boyles Law, Charles Law, Critical Temperature and Pressure Chemistry of Combustion:- Elements, Acids Base & Salts, Metals and nonmetals, Physical and Chemical Properties of metals Gas:- Physical and Chemical Properties of Different gases
2.	Basic Electricity and its Fire Hazards Fire Hazards in Generation, Distribution Station, Spark overheating, Specialized equipment used in hazardous areas, Transformer, Static Electricity etc.
3.	Design & construction of Fire Engine Design & construction of IC & CI engine
4.	Explosive & radioactive Materials and their hazards Handling of Explosives and Radioactive materials
5.	Fire Service Hydraulics Introduction and Units of measuring Length, Area, Volume, Velocity, Nozzle Discharge, Jet Reaction, Friction loss, Break Horse Power, Pump Efficiency
6.	Planning & Construction of the buildings
7.	Structural Fire Protection
8.	Air Conditioning, Heating and Ventilating System
9.	Automatic Fire Detection & Alarm & suppression System Introduction, Type of Detectors, Operating Principles of Heat, Smoke, Gas & Flame Detection system
10.	Fixed firefighting Installations
11.	Means of escape Action plan in case of emergency, Evacuation plan, Assembly point, Exit Sign Exit width, Travel distance, Refuse area, Means of escape and their maintenance

12.	Fire Protection measure in aircraft hangers, Cargo, Airport Terminal Building & Warehouses Quantification of Risk, Fire prevention & protection measure at above stated occupancies
13.	Fire Safety Legislation
14.	Disaster Management
15.	Fire Protection measure at Oil Depot
16.	Extinguishing Media Different Types of Extinguishing Media their properties used in airport Fire Service
17.	Types of Fire-Fighting Appliances & equipment
18.	B.A. Set & PPE Types of BA set, SCBA, Constructions, Testing, PPE, types of uses
