

Syllabus for competent person Exam -2026 under SMPV Rules.

1. Explosives Act 1884 & SMPV Rules (U) 2016:
2. Physical & Chemical Properties of widely used Toxic, Flammable, Cryogenics & Refrigerant Gases.
3. Flammability Ranges of Common Materials, Key Definitions for Safety Data i.e. lower Explosive Limit (LEL), Upper Explosive Limit (UEL), Flash point etc.
4. Basic concepts related to Pressure Vessel design, fabrication, testing. Knowledge of relevant codes and standards.
5. Testing of Pressure vessels i.e. hydrostatic test, Pneumatic test, Leak test, degassing, Maintenance & Inspection i.e. Visual inspection, Thickness measurement, Fitness for service, corrosion protection system, earthing & bonding of pressure vessel.
6. Basic concepts related to design and selection of various mechanical safety devices i.e. Pressure safety valves, Rupture disc, Vacuum relief valves etc.
7. Basic concepts related to plant design layout of industries covering refinery, LPG storage aboveground & mounded, bottling plant of LPG and other gases, LNG storage, hydrogen storage etc.
8. Fire protection system, Fire water storage area layout design, fire water calculation basic concepts. Various types of Fire Extinguisher, their application & working.
9. Hazardous Area Classification for Flammable Gases and Vapors, various Explosion Protection Concepts i.e. Intrinsic safety, Flameproof etc and selection of equipments.
10. Illumination, Lux level during night operations in installations.