

# GUJARAT TECHNOLOGICAL UNIVERSITY

## Diploma in Fire Technology

### Semester: III

**Subject Name: Building Const. & Fire Hazards & Its prevention**

Sr. No.	Course Content
1	<b>Building Const. -1</b> 1.1 Fire effect on Building construction materials -Fire resisting power of building construction materials 1.2 Symptoms of building collapse 1.3 Fire Load, Grading 1.4 Classification of buildings 1.5 Fire protection in high-rise building 1.6 Means of escapes 1.7 Portable fire extinguisher : Classification of all fire extinguisher & its testing, recharging , care and maintenance
2	<b>Building Const. -2</b> 2.1 Storage of hazardous goods and its classification 2.2 Fix fire fighting installation 2.3 Hydrants and its testing and maintenance 2.4 Rising main , Sprinkler system –Drechers 2.5 Fix installation using extinguishing media other than water
3	<b>Town Planning</b> 3.1.1 Planning surveys 3.1.2 Selection of site for urban development 3.1.3 Consideration climate 3.1.4 Topography 3.1.5 Drainage & water supply 3.1.6 Types of rode in urban areas communication system & its relationship to the cities 3.1.7 Multistory flats, group housing 3.1.8 Commercial complexes 3.1.9 Detached or semi-detached house in relation to fire risks types of housing units' layout etc.
4	<b>4.1 Water Supply</b> 4.1.1 Demand for water estimate quantity of water on the basis of residential, industrial and fire demand 4.1.2 Fluctuations 4.1.3 Populations- present & future 4.1.4 Increase in per capital consumption, continuous or intermittent supply

	<p><b>4.2 Sources of water :</b></p> <p>4.2.1 Surface water</p> <p>4.2.2 Stream &amp; Lakes</p> <p>4.2.3 Impounding reservoirs selecting catchments</p> <p>4.2.4 Estimation of stoppage capacity</p> <p>4.2.5 Intake &amp; tunnels</p> <p>4.2.6 Quantity of water</p> <p>4.2.7 Use of ground water</p> <p><b>4.3 Conveyance :</b></p> <p>4.3.1 Pumps pipes conveyancy protection, jointing material , hydrants valves</p> <p><b>4.4 Distribution of water :</b></p> <p>4.4.1 System</p> <p>4.4.2 Zones</p> <p>4.4.3 Capacity elevated tanks &amp; reservoirs</p> <p>4.4.4 Fire hydrant &amp; leakage</p> <p>4.4.5 Corrosion</p> <p>4.4.6 Water requirement for fire fighting</p>
5	<p><b>Anatomy of fire :</b></p> <p>5.1.1 Triangle of fire &amp; its theory</p>

#### REFERENCES BOOKS:

1. Strength of material -- S.Ramamutthi
2. Fire Technology -- R.S.Gupta