LESSON PLAN

NAME OF THEFACULTY :
DISCIPLINE : ARCHITECTURALASSISTANTSHIP
SEMESTER : 3rd
SUBJECT : BUILDING SERVICES
LESSONPLANDURATION : 15WEEKS
WORK LOADPERWEEK : 04

WEEK	LECTURE DAY	THEORY TOPIC
1	1.	**Water Supply** Water as a natural resource
	2.	Water as a natural resource
	3.	Public health significance of water quality,
	4.	Demand of water for domestic, commercial, industrial and public utility purposes as per BIS standards.
2	5.	Per capita demand
	6.	Leakage and wastage of water and its preventive measures
	7.	System of water supply – continuous, intermittent.
	8.	Advantages and disadvantages of System of water supply.
3	9.	Storage and Distribution of Water:
	10.	Different methods of water distribution boosting water, gravity and pressure distribution by storage tanks of individual buildings
	11.	Hot water supply for buildings including solar water heating.
	12.	Service connections, types and sizes of pipes, water supply fixture and Installations Concept of Rain water harvesting
4	13.	**Drainage :** Principles of drainage, surface drainage

	14.	Combined and separate system of Drainage.
	15.	. Drainage: shape and sizes of drains and sewers, storm water over flow Chambers.
	16.	Drainage: methods of lying
5	17.	Construction of sewers
	18.	House drainage: traps – shapes, sizes, types, materials and function.
	19.	**SESSIONAL TEST- 1st**
	20.	Inspection chambers – sizes, and construction
6	21.	Ventilation of house drainage – anti siphonage and vent pipes.
	22.	Single stack and double stack system
	23.	Functions and working of sinks, wash basins,, water closets, flushing cisterns, urinals, – sizes and types
	24.	Septic tanks
7	25.	Seepage and soak pits
	26.	Simple exercises on layout plans for toilet and kitchens
	27.	Simple exercises on layout plans for public and residential buildings including the placement.
	28.	Distances and fixing details.
8	29.	**Sound Insulation** Behaviour of sound propagation,
	30.	Acoustics in building, acoustical defects such as echo, reverberation, sound foci,
	31.	methods of correction, special requirements in Bldgs like auditorium, conference halls, studios etc
	32.	Acoustical materials and their uses in various buildings Simple exercises on sound insulation

9	33.	**Lighting and Electrical Fittings,** Electrical distribution-conduits for wiring.
	34.	Types of wiring, types of switches. Various terms used in lighting-illumination, Lux, lumen etc.distribution panels, MCB'S, ELCBS
	35.	Methods of lighting, quality of light of mercury lamps, incandescent types of lamps, fluorescent tubes
	36.	CFL and other lamps, thumb rules for calculation of illuminating level, various systems of wiring and their sustainability
10	37.	Symbolic representation of electrical fittings for different work areas in residential building (e.g. bed room, living room, kitchen, study and toilet)
	38.	Preparation of electrical layout of a simple residential building
	39.	Precautions to avoid electrical accidents
	40.	**SESSIONAL TEST- 2nd**
11	41.	**Heat, Ventilation and Air Conditioning (HVAC)**
	42.	Behaviour of heat propagation, thermal insulating materials and their coefficient of thermal conductivity
	43.	General methods of thermal insulation. Thermal insulation of roofs, exposed walls
	44.	Ventilation: Definition and necessity
12	45.	System of ventilation (Mechanical)
	46.	Principles of air conditioning, Air cooling
	47.	Different types of Air conditioning systems and their use in buildings
	48.	Essentials of air-conditioning system
13	49.	**Vertical Transportation Systems**
	50.	Classification and types of lift, sizes, provision and installation
	51.	Escalators, sizes, safety norms to be adopted
	52.	**Fire Fighting Services,** Causes of fire in Buildings

14	53.	classification of building materials according to fire rating; fire alarm systems
	54.	introduction to fire fighting system
	55.	precaution and controlling devices (fire panels, door and windows automation, fire hydrants and sprinklers)
	56.	fire escape elements (staircases, ramps,)
15	57.	Provisions in building from fire safety angle as per BIS; heat detectors, and fire detection system.
	58.	**Integration of lighting, air-conditioning**
	59.	Acoustics and other services/systems in buildings.
	60.	**SESSIONAL TEST- 3rd**