



RAMA
UNIVERSITY

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FACULTY OF ENGINEERING AND
TECHNOLOGY (DEPARTMENT OF
CIVIL ENGINEERING)

**BUILDING CONSTRUCTION
DIPLOMA (IIInd YEAR/ IIIrd SEM)**



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LECTURE-01

INTRODUCTION (UNIT-I)

- A building structure is a man-made structure with a roof and walls standing more or less permanently in one place, such as a house or factory.
- a building is 'a structure that has a roof and walls and stands more or less permanently in one place
- Any object or a building in order to survive its designed life and serve the function for which it is designed has to bear its own loads and loads applied or loads coming over it. From that point of view a chair should have sufficient strong thick legs and firm support and so on. Thus, those components of any object which take the load and make survive the object are called the structural components of that object. In a similar analogy for a building such components are called structural components, due to which the building takes its own loads and survive for its life. In view of the above the walls, columns etc., are structural components of the building. With the advancement of the technology different geometrical configurations like framed structure, load bearing structure, shed structure etc., are popularly used to withstand the loads of different buildings.



CLASSIFICATION OF BUILDING

Buildings are classified into two categories.

1. Based on the occupancy.
2. Based on the type of construction.

Buildings classified, based on the occupancy:

- Every building or portion of land shall be classified according to its use or the character of its occupancy as a building of Occupancy. They are categorized into the following types.
 - I. Agricultural buildings
 - II. Commercial buildings
 - III. Residential buildings
 - IV. Educational buildings
 - V. Government buildings
 - VI. Industrial buildings
 - VII. Military buildings
 - VIII. Religious buildings
 - IX. Transport buildings
 - X. Power plants



CLASSIFICATION OF BUILDING

AGRICULTURAL BUILDINGS:

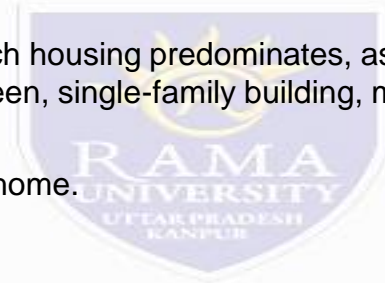
- They are the structures designed for farmers and for agricultural practices, for growing and harvesting crops, and to raise live stock. Chicken coop barn Farm house, Cow shed Pigsty Root cellar Storm cellar granary Farm house

COMMERCIAL BUILDINGS:

- They are the buildings, which are used exclusively for commercial use.
- Automobile companies, Ware house, Bank Convention, centres Gas stations, Super markets, Sky scrapers, Market house, Commercial shops

RESIDENTIAL BUILDINGS:

- A Residential building is that, in which housing predominates, as opposed to industrial and commercial areas. building may vary significantly between, single-family building, multi-family building, or mobile homes.
- Apartment Villa, Bungalow Nursing home.



EDUCATIONAL BUILDINGS:

- This occupancy type shall include any building or portion thereof in which education, training and care are provided to children or adults.
- This occupancy shall be subdivided as follows : Museum School Archive library

GOVERNMENT BUILDINGS:

- It is a building that houses a branch of government. Capitol Embassy Prison Fire station Post office

CLASSIFICATION OF BUILDING



AGRICULTURAL BUILDINGS



COMMERCIAL BUILDINGS



RESIDENTIAL BUILDINGS



• **GOVERNMENT BUILDINGS**



• **EDUCATIONAL BUILDINGS**

CLASSIFICATION OF BUILDING

INDUSTRIAL BUILDINGS:

- These buildings are designed to house industrial operations and provide the necessary conditions for workers, and for the operation of industrial equipment.
- Factory, Water mill, Foundry Power plant, Wind mill, Tide mill.

MILITARY BUILDINGS:

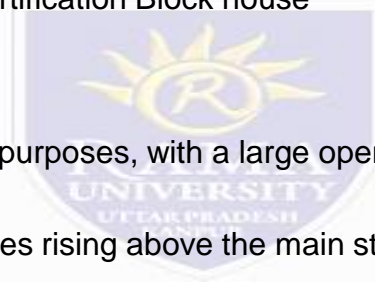
- This building is a structure designed to house the functions, performed by a military unit.
- Barracks, Bunker, Citadel Castle, Fortification Block house

RELIGIOUS BUILDINGS:

- These are the buildings for religious purposes, with a large open interior or other monumental qualities.
- They often have spires, towers, domes rising above the main structure.
- Church, Temple, Mosque, Pyramids, Shrine

TRANSPORT BUILDINGS:

- This is a structural building which consists of the means of equipment necessary for the movement of passengers or goods on land, water, and air ways.
- Air port Railway station Parking garage Light house Bus station



CLASSIFICATION OF BUILDING



INDUSTRIAL BUILDINGS



MILITARY BUILDINGS



RELIGIOUS BUILDINGS



TRANSPORT BUILDINGS

CLASSIFICATION OF BUILDING

POWER STATIONS/POWER PLANTS:

- These buildings serve as the industrial facility to generate electric power.
- Geo thermal power plant Fossil fuel power plant Nuclear power plant Renewable energy power station



THANK YOU

