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NOMENCLATURES AND THEIR MEANINGS

Introduction: Building is defined as that construction which has walls, columns, floor, ceiling, doors, windows, ventilators, stair case, lift and other related components. One of the main jobs of civil engineer is to construct building. For this it is very essential to have good knowledge of different parts of building and their construction related information and practices.

Role and Responsibilities of Construction Supervisor

The construction supervisor posted at job site should have the capability to understand fully and clearly the instructions given by higher authorities. He is responsible for getting the job done accordingly, by the skilled, semi-skilled and unskilled labourers / He should understand the abbreviations which are given below:

TABLE : 1.1

Abbreviation	Meaning	Abbreviation	Meaning	Abbreviation	Meaning
A.C.	Air Conditioner	A.C.B.	Air Circuit Breaker	A.C. Sheet	Asbestos Cement Sheet
B.C.	Bearing Capacity	B.M.	Bench Mark	B.O.C.	Bottom of Concrete
C.A.	Coarse Aggregate	C.B.	Circuit Breaker	C.C.	Cement Concrete
C.G.I.S.	Corrugated Galvanized Iron Sheets	C.I.	Cast Iron	C.J.	Construction Joint

C.L.	Center Line	C.M.	Cement Mortar	C.P.	Chromium Plated
C.S. Area	Cross Sectional Area	D.B.	Distribution Board	D.C.	Direct Current
F.A.	Fine Aggregate	F.M.	Fineness Modulus	F.T.	Floor Trap
G.F.L.	Ground Floor Level	G.I.	Galvanized Iron	G.L.	Ground Level
G.T.	Gully Trap	H.P.	Horse Power	H.T. Cable	High Tension Cable
I.C.	Inspection Chamber	ISMB	Internal Standard Medium Beam	I.S.M.C.	Indian Standard Medium Channel
I.W.C.	Indian Water Closet	L.D. Cover	Light Duty Cover	L. L.	Live Load
L.T. Cable	Low Tension Cable	M.B.	Measurement Book	M.C.	Moisture Content
M.C.B.	Miniature Circuit Breaker	M.R.P.	Maximum Retail Price	M.S.	Mild Steel
M.S.L.	Mean Sea Level	N.A.	Not Applicable	NRV	Non Return Valve
O.B.D.	Oil Bound Distemper	O.C.B.	Oil Circuit Breaker	O.H.T.	Over Head Tank
O.P.C.	Ordinary Portland Cement	O.W.C.	Orissa Water Closet	P.B.	Plinth Beam
P.C. C.	Plain Cement Concrete	R.B.C.	Reinforced Brick Concrete	R.C.C.	Reinforced Cement Concrete
R.L.	Reduced Level	R.M.C.	Ready Mixed Concrete	R.R. Masonary	Random Rubble Masonary
R.S.	Rolled Steel	R.W.P.	Rain Water Pipe	S.C.	Stop Cock
S.C.I.	Sand Cast Iron	S.F.	Shear force	S.S. Pipe	Stainless Steel Pipe
S.W.G.	Standard Wire Gauge	S.W. Pipe	Stone Ware Pipe	T&P	Tools & Plant
T.W.	Teak Wood	W.B.	Wash Basin	W.B.D.	Water Bound Distemper
W.B.M.	Water Bound Macadam (Road)	W.C.	Water Closet	W.L.	Water Level
W.O.	Work Order	W.P.	Waste Pipe	W.T.	Water Table

TABLE : 1.2

Units of Measurement

General Construction Material	Unit of Measurement
Cement	Bag, Metric Ton
Sand	Cubic metre or Cubic ft
Aggregates	Cubic metre or Cubic ft
Earth Work	Cubic metre or Cubic ft
Timber	Cubic metre or Cubic ft
Board, Ply	Square metre or Square ft
Brick	1000 Nos.
Reinforcement Steel	Kilogram, Metric Ton
Steel (Angle, Channel, Beams)	Kilogram or Metric Ton
Steel Plates or Sheets	Square metre or Square feet
M.S., G.I., C.I., or S.W. Pipe	R.M. (Running Metre)
Stone	Number
Liquid Paint	Ltr.
Powder Paint, Cement Paint, dry distemper	Kg.
Cement Water Proofing Compound	Kg.
Wax Polish	Kg.

TABLE : 1.3

Plumbing and Sanitary Fitting

General Construction Material	Unit of Measurement
Water Supply / Sewer Pipe	Metre
Water Supply specials (Bend, Elbow, etc.)	Nos. (dia /Nos.)
Fitting	Nos.

TABLE : 1.4

Unit of Measurement for different types of Construction Works

Name of the Work	Unit	Work	Unit
Earth Work (Filling & Cutting)	Cubic Metre	Concrete Work	Cubic. Metre.
Skirting, Water line, Sewer line, Draining Pile, Railing	Running Metre	Reinforcement	Kg.
Brick Work (one brick or more)	Cub. Metre	Plastering & Painting (Doors & Windows)	Sq. metre
Brick Work (less than one brick thick)	Square metre	Flooring & Pointing	Square metre
Structural steel works	Kg	Grills	Square metre or Kg

TABLE : 1.5

Definition of the different parts of building

Name of the part of Building	Definition
Balcony	The extended portion of the slab of any floor excluding Ground Floor.
Barsati	A Room on the Top Floor (with or without toilet).
Basement	Space below the Ground level, may be open or closed, used for store or parking.
Canopy	The portion above the main door of the building extending out side.
Carpet Area	The total constructed area of the building which may be 50 to 57% of total floor area.
Circulatory Area	Area of the building which is used for movement within the building.
Court Yard	Part of the building which is open to sky.

Jhajja or Sunshade	The extended portion of lintel above the door or window.
Floor Area Ratio (FAR)	Ratio of floor area to plot area
Garrage	Part of the building at Ground level where vehicle is parked.
Tand (Wall shelf)	Shelf supported on the wall extending 90 cm and at a height of 2.2 m above the floor surface.

Living Area: Living area is generally found for determining the fees / rent of the Government buildings.

The method of finding living area is as follows:

1. 100% of the area of Rooms, Kitchen, Bathrooms, Latrines, Store, Verandah (closed)
2. 25% of the area of open verandah, Corridor and Barsati.
3. 12 ½ % of the area of the Porch floor.
4. 5% of the area of Pucca Court Yard.

TABLE : 1.6

Lobby	It is that area of the house which is not used as room, but it is used for going from one room to the another.
Loft	Space at the top or bottom between the ceiling or floor extending from the wall at lintel level as slab, and it is used for keeping the things.
Stair case	Room used to cover steps / stairs, which saves the stairs from rains.
Mezzanine Floor	A small floor constructed between two floors, whose area is not more than 1/3rd area of the bottom floor and height of the floor is not more than 2.2 m.
Open Area	Open Area is equal to plot area minus ground area.
Out house	A house outside the main house
Parapet	It is a 90 cm high wall or railing arrow the top open terrace.
Platform	A raised Area, constructed in front or back of the house.

Plinth Area or Covered Area: Area enclosed by the house:

Areas not included in the plinth area are raised platform out of house, stair case area, sun shades, compound wall of gardens, Tank, Pavement, Parking Area, Common Entrance, Pump House, Servant Room, etc..

Following areas are included in plinth area

- stairs if in the room.
- Half the area of balcony if the width is more than 3.0 ft.
- Full area of the covered balcony.

Main points in Plinth Area Calculation

1. The wall thickness area are included.
2. The areas of Canopy, covered balcony, Parapet and Railings.
3. 50% Area of open balcony enclosed by Railing or parapet.
4. Any platform constructed in open sky is not included in plinth area.
5. If the verandah is covered its total area is included in the plinth area.
6. 50% of area of such raised platform which is enclosed with walls from three sides.

TABLE : 1.7

Plinth height	Height of floor level from G.L.
Plinth Security	One metre width projecting outside the plinth constructed for saving the plinth.
Plot Area	Total area of the plot.
Porch	Covered area, which is constructed in front of the main door of the building, where vehicles come and stop.
Roof	Topmost slab covering the building.
Set back	The open space from the boundary of the plot facing road side .
No. of Storey	No. of floors - 1

Terrace	Open space in front of a room at the roof level.
Verandah	It is a covered space enclosed on three sides and open on one side.

TABLE : 1.8

Formulae for determining the Areas

Shape	**Area**	**Perimeter**
Rectangle	Length × Breadth	2 (Length + Breadth)
Parallelogram	Base × Height	2 (Length + Breadth)
Triangle	½ × Base × Height	Sum of all the three sides
Trapezoid	½ (Length 1 + Length 2) × Height	Sum of all the four sides
Circle	$\pi \times (\text{radius})^2$	$2 \times \pi \times$ radius

Formulae for determining the Volume

Shape	**Area of shape**	**Volume**
Cube	6 x $(\text{side})^2$	Length × Breadth × Height
Cone	$\pi \times (\text{radius})^2 + \pi \times$ radius × diagonal height)	1/3 $\pi \times (\text{radius})^2 \times$ height
Rectangular prism	(Sum of all the three sides) × length + Base × Height	½ (Base × Height) × Length
Cylinder	$2 \times \pi \times$ radius × height	π x $(\text{radius})^2 \times$ height
Pyramid	(2 × Base × Height) + $(\text{Side})^2$	1/3 × Area of Base × Height
Sphere	$4 \times \pi \times (\text{radius})^2$	(4/3) x π x $(\text{radius})^2$

Diagonal height = Square root of $(\text{Radius}^{2)} + (\text{Height})^2$

Value of π = 22/7 = 3.1416