



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

## CIVIL ENGINEERING

### DEFINITIONS AND TERMINOLOGY

<b>Course Name</b>	:	<b>BUILDING MATERIALS AND CONSTRUCTION PLANNING</b>
<b>Course Code</b>	:	<b>ACE007</b>
<b>Program</b>	:	<b>B. Tech</b>
<b>Semester</b>	:	<b>IV</b>
<b>Branch</b>	:	<b>Civil Engineering</b>
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### OBJECTIVES

I	To help students to consider in depth the terminology and nomenclature used in the syllabus.
II	To focus on the meaning of new words / terminology/nomenclature

## DEFINITIONS AND TERMINOLOGY QUESTION BANK

S No	QUESTION	ANSWER	Blooms Level	CLO	CLO Code
<b>UNIT - I</b>					
1	What is Blending?	Clay is made loose and any ingredient to be added to it is spread out at top and turning it up and down in vertical direction.	Remember	2	CACE007.02
2	What is Chimney?	A vertical flue for passing smoke from a heating unit, fireplace, or incinerator.	Remember	2	CACE007.02
3	Define Flue.	The space or passage in a chimney through which smoke, gas, or fumes ascend. Each passage is called a flue, which together with any others and the surrounding masonry make up the chimney.	Remember	1	CACE007.01
4	Define Coping Bricks.	These bricks are manufactured in a variety of shapes to set the thickness of the wall and are throated on the underside to throw off rain water.	Remember	2	CACE007.02
4	What is meant by River sand?	This sand is obtained from beds of rivers. River sand consists of fine rounded grains. Colour of river sand is almost white. As the river sand is usually available in clean condition, it is widely used for all purposes.	Understand	4	CACE007.04
5	Define the term Durability.	Durability is the ability of a material to resist the combined effects of atmospheric and other factors.	Understand	1	CACE007.01
6	What is an Excavation?	A cavity or pit produced by digging the earth in preparation for construction.	Remember	2	CACE007.02
7	Define the term Masonry.	Stone, brick, concrete, hollow-tile, concrete-block, gypsum-block, or other similar building units or materials or a combination of the same, bonded together with mortar to form a wall, pier, buttress or similar mass.	Remember	7	CACE007.07
8	Define Strength.	Strength is the ability of the material to resist failure under the action of stresses caused by loads, the most common being compression, tension, bending and impact.	Understand	1	CACE007.01
9	Define Plasticity.	Plasticity is the ability of a material to change its shape under load without cracking and to retain this shape after the load is removed.	Understand	1	CACE007.01
10	What is a Damper?	A movable plate which regulates the draft of a stove, fireplace, or furnace.	Remember	5	CACE007.05
12	Explain Seasoning of Stone?	A freshly cut stone carries some natural moisture known as quarry <i>sap</i> making it soft and workable. The quarry sap is a mineral solution and reacts chemically with the mineral constituents when the stone is exposed to atmosphere after quarrying. The stone becomes harder and compact. The process takes about 6 to 12 months for complete seasoning	Understand	1	CACE007.01
13	Explain Dressing of Stone?	A quarried stone has rough surfaces, which are dressed to obtain a definite and regular shape. Dressing of stones is done immediately after quarrying and before seasoning to	Remember	1	CACE007.01

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		achieve less weight for transportation. Dressing of stone provides pleasing appearance, proper bedding with good mortar joints, special shapes for arches, copings, pillars, etc			
14	What is Frost?	In cold places frost pierces the pores of the stones where it freezes, expands and creates cracks.	Understand	2	CACE007.02
15	Define the term Water permeability.	Water permeability is the capacity of a material to allow water to penetrate under pressure. Materials like glass, steel and bitumen are impervious.	Understand	1	CACE007.01
16	Define Porosity.	In simple terms, porosity may be described as the amount of openings (or) interstices (or) empty spaces present in a rock.	Remember	2	CACE007.02
17	Define permeability.	The permeability of a rock or soil defines its ability to transmit a fluid or water . Permeability depends on the porosity and interconnected pores character of the rock, thus more porous rocks are more permeable too.	Remember	2	CACE007.02
18	What is frog?	An indent called frog, 1 – 2 cm deep is provided for 9 cm height bricks only. The purpose of providing frog is to form a key for holding the mortar and therefore, the bricks are laid with frogs on top. Frog is not provided in 4 cm high bricks	Remember	1	CACE007.01
19	Define Un-soiling.	The soil used for making building bricks should be processed and to be free from gravel, sand ( > 2 mm ) lime and kankar particles, organic matter etc. About 200 mm of the top layer of the earth, normally containing stones, pebbles.	Remember	2	CACE007.02
20	What is Pugging?	For manufacturing good bricks, tempering is done in Pug Mills and the operation is called Pugging.	Understand	4	CACE007.04
21	Define the term Efflorescence Test.	The brick is immersed in water for 24 hours. It is then taken out and allowed to dry in shade. The absence of grey or white deposits on its surface indicates the absence of soluble salts.If the white deposits cover about 10% surface, the efflorescence is said to be slight and it is considered as moderate when the white deposits cover about 50 % of surface.	Understand	1	CACE007.01
22	What is Tempering?	In the process of tempering, the clay is brought to a proper degree of hardness. The tempering should be done exhaustively to obtain homogeneous mass of clay of uniform character	Remember	2	CACE007.02
23	Define the term Soundness.	Stone, brick, concrete, hollow-tile, concrete-block, gypsum-block, or other similar building units or materials or a combination of the same, bonded together with mortar to form a wall, pier, buttress or similar mass.	Remember	7	CACE007.07

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24	What is a Facing Bricks?	Facing Bricks are made primarily with a view to have good appearance, either of colour or texture or both. These are durable under severe exposure and are used in fronts of building walls for which a pleasing appearance is desired.	Understand	1	CACE007.01
25	Define Toughness test.	Hit the stone with a hammer and find how tough it is to break it with the hammer.	Understand	1	CACE007.01
26	What is a Pallet?	A thin board called pallet is placed over the mould.	Remember	5	CACE007.05
27	What is Refractoriness?	Refractoriness denotes the ability of a material to withstand prolonged action of high temperature without melting or losing shape. Materials resisting prolonged temperatures of 1580°C or more are known as refractory.	Understand	1	CACE007.01
28	Define Engineering Bricks.	Engineering Bricks are strong, impermeable, smooth, table moulded, hard and conform to defined limits of absorption and strength. These are used for all load bearing structures.	Remember	1	CACE007.01
29	Define flakiness index.	The flakiness or elongation index of an aggregate is defined as the percentage weight of particles in the given aggregate which has its length greater than 1.8 times and its least dimension (thickness) is less than 3/5 (or 0.6) times its mean dimension.	Understand	2	CACE007.02
30	Explain about Abrasion test.	This test is for the stones used in road construction. We use the Deval's abrasion testing machine or the Los Angeles abrasion machine for this purpose. It should not be more than 16 per cent for a good aggregate.	Understand	1	CACE007.01
<b>UNIT – II</b>					
1	What is an adhesive?	A natural or synthetic material, generally in paste or liquid form, used to fasten or glue boards together, lay floor tile, fabricate plastic laminates, etc.	Understand	1	CACE007.01
2	What is Grout?	A plaster-like material used to seal between ceramic and other tile in kitchens, showers, and baths.	Understand	5	CACE007.05
3	Define Precast.	Concrete shapes which are made before being placed into a structure.	Remember	5	CACE007.05
4	What is a Stretcher Course?	A row of masonry in a wall with the long side of the units exposed to the exterior.	Remember	5	CACE007.05
5	Explain Hydration of Cement?	The chemical reaction between cement and water is known as hydration of cement. The reaction takes place between the active components of cement (C <sub>4</sub> AF, C <sub>3</sub> A, C <sub>3</sub> S and C <sub>2</sub> S) and water.	Understand	5	CACE007.05
6	Define Soundness of cement.	It is essential that the cement concrete does not undergo large change in volume after setting. This is ensured by limiting the quantities of free lime and magnesia which slake slowly causing change in volume of cement (known as unsound). Soundness of cement may be tested by Le- Chatelier method or by autoclave method.	Understand	5	CACE007.05

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7	What is a Pulverizer?	A pulverizer or grinder is a mechanical device for the grinding of many different types of materials. For example, a pulverizer mill is used to pulverize coal for combustion in the steam-generating furnaces of fossil fuel power plants.	Remember	5	CACE007.05
8	Define Bulking.	The increase in the volume of a given mass of fine aggregate caused by the presence of water is known as bulking.	Understand	6	CACE007.06
9	Define Workability of concrete.	The property of fresh concrete which is indicated by the amount of useful internal work required to fully compact the concrete without bleeding or segregation in the finished product.	Understand	6	CACE007.06
10	Define the term Creep.	Concrete creep is defined as: deformation of structure under sustained load. Basically, long term pressure or stress on concrete can make it change shape. This deformation usually occurs in the direction the force is being applied. Like a concrete column getting more compressed, or a beam bending.	Understand	6	CACE007.06
11	What is an Admixtures of Concrete?	A material other than water, aggregates, or cement that is used as an ingredient of concrete or mortar to control setting and early hardening, workability, or to provide additional cementing properties. Admixtures of concrete are generally used to alter the properties of concrete (such as increased workability or reduced water content, acceleration or retardation of setting time, acceleration of strength development, and improved resistance to weather and chemical attacks) to make it more suitable for a particular purpose.	Remember	6	CACE007.06
12	What is a binder?	The binder is the film-forming component of paint. It is the only component that must be present. The binder imparts adhesion and strongly influences properties such as gloss, durability, flexibility, and toughness.	Remember	6	CACE007.06
13	Explain the importance of Accelerate Admixture?	An admixture that causes an increase in the rate of hydration of the hydraulic cement and thus shortens the time of setting, increases the rate of strength development, or both.	Understand	6	CACE007.06
14	Why gypsum is used in cement?	Gypsum is used for retarding the setting time of cement.	Understand	5	CACE007.05
15	What is Mortar?	A mixture of cement, sand and water, used by the mason as a bonding agent for bricks and stone.	Remember	5	CACE007.05
16	What is a good concrete?	A good concrete is one in which the ingredients are properly distributed to make a homogenous mixture and it should not show any sign of segregation or bleeding.	Understand	1	CACE007.01
17	Explain Properties of Fresh Concrete.	The concrete is a basic prime building material because of various properties being possessed during its hardened state which starts from the day it attains the full designed strength to the end of its life.	Understand	5	CACE007.05
18	What is curing? State its importance.	It is absolutely essential that moisture should be present in the initial stages for the	Remember	5	CACE007.05

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		Development of strength of cement. This process of supplying moisture environment is known as curing. Thus, curing of the products of cement is very important in all the works connected with cement like construction of masonry. Plastering, concreting. etc.			
19	What is White cement and where is it used?	White cement is made from chalk or limestone or shell lime free from impurities and white clays like china clay free from oxides of iron, manganese, etc. White cement is very much used for making of mosaic tiles, coloured cements, etc.	Remember	5	CACE007.05
20	What is Fresh concrete?	The fresh concrete or plastic concrete is the initial stage of concrete period and it is counted from the mixing stage till it is transported, placed, compacted and finished in the position.	Understand	5	CACE007.05
21	Define segregation.	Segregation can be defined as the separation of coarse aggregate from the main mass of concrete in the plastic stage and it occurs in case of dry mix of insufficient and non - uniform mixing.	Understand	5	CACE007.05
22	Define bleeding.	Bleeding is a form of segregation in which some of water in the mix tends to rise the surface of freshly placed concrete. This is because of the inability of the solid constituents of the mix to hold all the mixing water in the place when they settle downwards.	Remember	5	CACE007.05
23	What is Blended cement?	For economy, a mixture of Portland cement, blast furnace slag and flyash is allowed to be used in some countries. It is known as blended cement. This type of cement is not marketed in India.	Understand	6	CACE007.06
24	What are the limitations of slump test?	It is not suitable for concrete made with aggregate size more than 40 mm. Not suitable for harsh mixes	Understand	6	CACE007.06
25	What do you mean by admixtures?	Admixtures are those ingredients in concrete other than Portland cement, water, and aggregates that are added to the mixture immediately before or after the concrete mix.	Understand	6	CACE007.06
26	What is the main function of set retarders?	Slows curing rate. Used to counteract hot weather conditions that cause increased rate of hardening. This makes placing and finishing difficult.	Remember	6	CACE007.06
27	What is the composition of making the Mortar?	Mortar is a mixture of 3 materials i.e. cement, water and sand (P.C. + sand + water = Mortar), used in building for holding bricks or stones together.	Remember	6	CACE007.06
28	What is wet process?	Grinding and mixing of the raw materials in their wet state is called wet process	Understand	6	CACE007.06
29	Why the kiln is placed inclined in wet process?	The kiln is slightly inclined with horizontal so that the slurry coming from slurry tank can free fall with the gravity into the next process.	Understand	5	CACE007.05
30	What is dry process?	Grinding and mixing of the raw materials in their dry state is known as dry process	Remember	5	CACE007.05
<b>UNIT – III</b>					
1	Define Lintel.	A horizontal structural member that supports the load over an opening such as a door or window.	Remember	7	CACE007.07

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1	What is Plaster?	A mortar-like composition used for covering walls and ceilings, usually made of portland cement mixed with sand and water.	Remember	7	CACE007.07
3	Define Flexural Strength.	The maximum tensile stress resisted by the plain concrete in flexure (bending) is called Flexural Strength (or modulus of rupture) expressed in $N/mm^2$ .	Understand	7	CACE007.07
4	What is bitumen?	Bitumen is a sticky, black and highly viscous liquid or semi-solid form of petroleum. It may be found in natural deposits or may be a refined product; it is a substance classed as a pitch. Bitumen is an oil based substance.	Remember	8	CACE007.08
5	What is Retaining Wall?	A wall which holds back an earth embankment.	Remember	11	CACE007.11
6	What is Foundation?	The supporting portion of a structure below the first-floor construction, or below grade, including the footings.	Remember	11	CACE007.11
7	Define Footing.	A masonry section, usually concrete, in a rectangular form wider than the bottom of the foundation wall or pier it supports.	Remember	11	CACE007.11
8	What is a Dead Load?	All the unmovable weight in a structure and the weight of the structure itself.	Understand	11	CACE007.11
9	What is a truss?	A Truss is a triangulated system of members that are structured and connected in a way such that they only incur axial force. These members are considered two-force members as the forces are only applied at either end of the member, resulting in either a compression or tension force.	Remember	9	CACE007.09
10	How do you measure trusses?	Set two ladders at each end of the area to be measured. Pull a tape measure along the top plate of the house to determine the length of the roof while the assistant holds the other end. Write down the measurement in feet. Repeat the procedure on the width of the top plate to determine the width of the roof trusses	Remember	9	CACE007.09
12	What are trusses made of?	A truss is a type of built-up structural member that can be used in place of a single girder or beam. Trusses are made from multiple straight members (generally made from wood or metal) arranged in triangles	Remember	9	CACE007.09
13	Define Rafter.	One of a series of structural members of a roof designed to support roof loads. The rafters of a flat roof are sometimes called roof joists.	knowledge	9	CACE007.09
14	What is a Subgrade?	A fill or earth surface upon which concrete is placed.	Remember	11	CACE007.11
15	How do arches work?	Arch bridges work by transferring the weight of the bridge and its loads partially into a horizontal thrust restrained by the abutments at either side. A viaduct (a long bridge) may be made from a series of arches, although other more economical structures are typically used today.	Understand	9	CACE007.09
16	What is shallow foundation?	A shallow foundation is a type of building foundation that transfers building loads to the earth very near to the surface, rather than to a subsurface layer or a range of depths as does a deep foundation.	Remember	10	CACE007.10

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17	What is the combined footing?	A footing that supports two or more columns is called combined footing. A combined footing may be either rectangular or trapezoidal in shape.	Remember	7	CACE007.07
18	What are Purlins?	Horizontal roof members laid over trusses to support rafters.	Remember	7	CACE007.07
19	What is Flooring?	The exposed term surfaces of floors are termed as the Flooring.	Understand	7	CACE007.07
20	What is Bay?	The space between adjacent bents in a roof truss is called bay.	Remember	8	CACE007.08
21	What is the function of portal in bridge trusses?	Portal and sway bracing are there to provide additional stability.	Remember	11	CACE007.11
22	What is Footing?	A spread is given under the base of a wall or common is known as Footing.	Remember	11	CACE007.11
23	Define Raft foundation.	Raft foundation is the method of increasing the bearing power of soil when load coming on the soil is practically uniform	Remember	11	CACE007.11
24	What are the applications of raft foundation?	Raft foundations are useful for public buildings, office buildings, School buildings, residential quarters, etc.	Understand	11	CACE007.11
25	Define Foundation.	The part of a building constructed below ground level is known as Foundation.	Remember	9	CACE007.09
26	What is the use of Ground tracing?	is applied to the process of laying down certain lines and marks on the ground before the excavation of foundation trenches.	Remember	9	CACE007.09
27	Combined footing	A common footing provided for two or more columns is known as Combined footing.	Remember	9	CACE007.09
28	What is Plinth ?	The part of the building above the ground level and up to the floor level immediately above the ground is known as plinth.	knowledge	9	CACE007.09
29	What is Plinth area?	The built up area measured and the plinth level is known as Plinth area	Remember	11	CACE007.11
30	What is Sub-structure?	The portion below the plinth level is known as Sub-structure.	Understand	9	CACE007.09
31	Define Eve.	The lowest edge of the sloping surface of roof is called Eve.	Remember	10	CACE007.10
<b>UNIT - IV</b>					
1	Define Plywood.	Plywood is a laminate made of thin layers of wood.	Knowledge	12	CACE007.12
2	Write about Veneer.	In woodworking, veneer refers to thin slices of wood, usually thinner than 3 mm, that typically are glued onto core panels (typically, wood, particle board or medium-	Remember	15	CACE007.15



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		density fiberboard) to produce flat panels such as doors, tops and panels for cabinets, parquet floors and parts of furniture.			
3	What are Quoins?	Stone or other building materials set in the corners of masonry sections of a house for appearance.	Remember	1	CACE007.01
4	What is Particle Board?	A composition board made of wood chips or particles bonded together with an adhesive under high pressure.	Remember	12	CACE007.12
5	Define Pallet.	An inexpensive wood skid used to stack and ship construction materials such as brick or concrete block.	Knowledge	12	CACE007.12
6	Explain the term Sheathing?	The structural covering, usually wood boards or plywood, used over studs or rafters of a structure. Structural building board is normally used only as wall sheathing.	Understand	12	CACE007.12
7	Define Header.	A header is a brick laid such that the small end only appears on the face of the wall.	Understand	7	CACE007.07
8	<b>What is Shiplap?</b>	Wood sheathing which is rabbeted so that the edges of the boards make a flush joint	Understand	12	CACE007.12
9	<b>Define Sleeper.</b>	Usually a wood member embedded in concrete, as in a floor, that serves to support and to fasten subfloor or flooring	Remember	12	CACE007.12
10	What is the brick pattern called?	Brickwork is masonry produced by a bricklayer, using bricks and mortar. Typically, rows of bricks—called courses	Understand	2	CACE007.02
11	What is Flemish bond brick?	Flemish bond brickwork with a thickness of one brick is the repeating pattern of a stretcher laid immediately to the rear of the face stretcher, and then next along the course, a header	Remember	2	CACE007.02
12	What is masonry wall?	Masonry is commonly used for walls and buildings. Brick and concrete block are the most common types of masonry in use in industrialized nations and may be either weight-bearing or a veneer	Remember	11	CACE007.11
13	Why is brick a good building material?	Interior walls made of bricks help adjust the building's temperature, as they store heat and cool air. ... Besides comfort, a building made of bricks also has some financial advantages. Houses made entirely out of brickwork cost less in the long run, because they need less energy for heating	Remember	2	CACE007.02
14	What is zig zag bond?	Zig Zag Bond. This bond is similar to herring – bone bond, except that the bricks are laid in zigzag fashion. This bond is commonly used for making ornamental panels in the brick flooring.	Remember	2	CACE007.02
15	Write notes on Paint.	Paint is any liquid, liquefiable, or mastic composition that, after application to a substrate in a thin layer, converts to a solid film. It is most commonly used to protect, color, or provide texture to objects.	Remember	15	CACE007.15
16	What is Sheeting?	The term Sheathing is used to indicate vertical members of timber in which directly resist pressure from the side of a Trench.	Knowledge	12	CACE007.12

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17	What is the use of Sheet piling?	Sheet piling is used when large area is to be excavated for depth greater than 10 meters, soil to be excavated is soft or loose, width of the trench is also large and the subsoil water is present.	Remember	15	CACE007.15
18	What is seasoning?	: Tree when felled contains sap and high moisture content. To use it for engineering purpose, it has to be dried. The process of drying timber to remove water is called seasoning.	Remember	1	CACE007.01
19	What is the use of annular rings?	Annular rings are formed every year and they consist of innumerable cells of fibres and tissues. Total number of annular rings indicate an age of tree. Narrow annular rings indicate the strength of tree.	Remember	12	CACE007.12
20	What is check?	Check is crack that does not extend from one end to another. A check that extends from one end to other is called a split.	Knowledge	12	CACE007.12
21	What is the reason for diagonal grain defect?	Diagonal grain is caused due to improper sawing of timber. It is indicated by diagonal marks on straight grained surface of the timber.	Understand	12	CACE007.12
22	What is a natural defect?	Natural defects are defects that occur within the growing tree and which can influence the strength and visual appearance of the surface of the timber. They are sometimes referred to as structural defects.	Understand	7	CACE007.07
23	How do you get rings out of wood?	To remove white rings left by wet glasses on wood furniture, mix equal parts vinegar and olive oil and apply it with a soft cloth while moving with the wood grain. Use another clean, soft cloth to shine it up. To get white water rings off leather furniture, dab them with a sponge soaked in full-strength white vinegar	Understand	12	CACE007.12
24	How long does it take for mold to grow on drywall?	Under ideal conditions (optimal temperature and level of humidity), it takes 24 to 48 hours for mold to germinate and grow. Typically, the spores begin to colonize in 3 to 12 days and become visible in about 18-21 days.	Remember	12	CACE007.12
25	Does standing water cause mold?	Water in Your Basement Can Lead to Mold. Mold needs just three things to grow: moisture, food, and optimal temperature. And it just so happens that standing water provides plenty of moisture to help promote mold growth, which is not only a nuisance, but also another risk to your health.	Understand	2	CACE007.02
26	What are two methods of drying lumber?	Wood drying (also seasoning lumber or wood seasoning) reduces the moisture content of wood before its use. When the drying is done in a kiln, the product is known as kiln-dried timber or lumber, whereas air drying is the more traditional method. There are two main reasons for drying wood: Woodworking.	Remember	2	CACE007.02
27	What is the strongest brick bond?	Header Brick Bond. English bond is made up of alternating courses of stretchers and headers. This produces a solid wall that is a full brick in depth, is easy to lay and is the strongest bond for a one-brick-thick wall.	Remember	11	CACE007.11
28	How many types of bonds are in brickwork?	Types of Brick Bonds. Bonds are the horizontal patterns in which bricks are laid. There are five main types of bonds used in old buildings.	Remember	2	CACE007.02

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29	What is zig zag bond?	Zig Zag Bond. This bond is similar to herring – bone bond, except that the bricks are laid in zigzag fashion. This bond is commonly used for making ornamental panels in the brick flooring.	Remember	2	CACE007.02
30	How many bricks make a square Metre?	60 bricks, a half brick wide wall requires 60 bricks per square metre. So the first stage is just to measure the height and length (including any piers) of the wall in metres, multiply them together to give the area in square metres, and then multiply this by 60.	Remember	15	CACE007.15
31	What is half brick bonding?	All bricks in this bond are stretchers, with the bricks in each successive course staggered by half a stretcher. Headers are used as quoins on alternating stretching courses in order to achieve the necessary off-set. It is the simplest repeating pattern, and will create a wall only one-half brick thick.	Remember	15	CACE007.15
<b>UNIT - V</b>					
1	What is a Leader?	A vertical pipe or downspout that carries rainwater from the gutter to the ground or storm sewer.	Understand	16	CACE007.16
2	Define Nosing.	The rounded edge of a stair tread.	Remember	16	CACE007.16
3	What is a Partition?	A wall that subdivides spaces within any story of a building	Remember	11	CACE007.11
4	What is the use of Portico?	A covered entryway attached to house, usually open on three sides and supported by posts or columns.	Understand	16	CACE007.16
5	Define Riser.	Each of the vertical boards closing the spaces between the treads of stairways.	Remember	16	CACE007.16
6	What is meant by a Run?	In stairs, the net width of a step or the horizontal distance covered by a flight of stairs.	Remember	16	CACE007.16
7	What is meant by Topography?	Usually refers to site characteristics such as contour of the land, trees, or other natural features.	Understand	17	CACE007.17
8	<b><i>What is the use of aspect?</i></b>	The meaning of aspect has now been given wider scope and it includes the arrangement of doors and windows in the external walls of buildings particularly of residential buildings, so as to fully enjoy the natural gifts of sunshine, Breeze, scenery, etc	Remember	7	CACE007.07
9	What is the use of circulation?	The proper provision of circulation makes the building comfortable and convenient. The circulation in a building is of two types- Horizontal circulation and Vertical circulation.	Understand	17	CACE007.17
10	Define Grouping.	Correct grouping grants the status of a balanced design. For instance, in a residential building, kitchen and dining room should be grouped close to each other. It is observed that grouping leads to saving in unnecessary movements proper correlation easy control and overall economy	Understand	17	CACE007.17

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11	What is the requirement of privacy in good planning ?	Privacy offers special comfort to the occupants. It should not be confused as it is the total isolation and is desirable only in certain cases as study rooms, library, etc. Privacy is of two types- External privacy and Internal privacy.	Understand	17	CACE007.17
12	What is the need for Ventilation?	Controlling dust and other impurities from coming into the building is the main cause of insisting proper ventilation in the commercial buildings. The ventilation is also required to suppress odours, smoke, concentration of bacteria, etc.	Understand	17	CACE007.17
13	What is stair?	A stair is define as a sequence of steps and it is provided to afford the means of Ascent and Descent between the floors or landings.	Remember	17	CACE007.17
14	What is Handrail?	The incline rail over the string is known as a Handrail	Remember	17	CACE007.17
15	What is going?	Going is the horizontal distance between the faces of two consecutive Risers	Remember	17	CACE007.17
16	Define Landing.	The horizontal platform between two flights of a Stair is known as the stair. A landing facilitates change of direction and provides an opportunity for taking rest during the use of a stair. Whereas, the vertical distance between two consecutive treads is known as Rise.	Understand	16	CACE007.16
17	What is the difference between staircase and stairwell?	A stairway and staircase mean the same thing and refer to a set of stairs between one floor and another. ... A "stairwell" usually refers to a set of stairs that are surrounded by walls, such as an emergency exit in an office building, hotel, or school	Remember	16	CACE007.16
18	Why is it called a stairwell?	A stair, or a stairstep, is one step in a flight of stairs. In buildings, stairs is a term applied to a complete flight of steps between two floors. A stair flight is a run of stairs or steps between landings. A <b>stairwell</b> is a compartment extending vertically through a building in which stairs are placed	Remember	11	CACE007.11
19	What is a Splayed step?	Splayed step has one end or both ends splayed in plan.	Understand	16	CACE007.16
20	What is meant by Built-up area?	It is also known as the Floor Space Index (FSI) or Floor Area Ratio (FAR). The value of built-up area is determined by local authorities and it may be different for different areas for different buildings of the town. Floor area means built up area excluding area of walls.	Remember	16	CACE007.16
21	Define the term Flier.	Flier is an ordinary step of rectangular shape in plan.	Remember	16	CACE007.16
22	What is meant by Building line?	A Building line usually parallel to the plot boundaries and laid down in each case by the Authority, beyond which nothing can be constructed towards the site boundaries.	Understand	17	CACE007.17
23	How do you calculate rise and run of stairs?	The finish floor represents the tread at the top of the stair, so the total run is the number of risers minus 1. Multiply the number of risers (3, in this example) by the the run length (10 inches, in this example): 3 X 10 inches = 30 inches for the total run.	Remember	7	CACE007.07

S No	QUESTION	ANSWER	Blooms Level	CLO	CLO Code
24	What are the different types of stairs?	<b>Types of Stairs</b> <ul style="list-style-type: none"> <li>• Straight Stairs.</li> <li>• Straight Stair with central landing.</li> <li>• L Shaped Stair.</li> <li>• L Shaped Winder Stairs.</li> <li>• Spiral Stairs.</li> <li>• Curved Staircase.</li> <li>• Library Ladder</li> </ul>	Understand	17	CACE007.17
25	What is Quarter- turn stair ?	A Stair turning through one right angle is known as a Quarter- turn stair.	Understand	17	CACE007.17
26	What is Dog-legged stair?	A Stair turning through two right angles is known as a Dog-legged stair stair.	Understand	17	CACE007.17
27	What is Helical stair?	In Circular or Helical or Spiral types of stairs, the flight consists of winders only and they may be continued through any design number of turns. A spiral stair may be constructed of cast iron, mild steel or concrete.	Understand	17	CACE007.17
28	When the Spiral stairs are used?	The Spiral stairs are useful where the space available is limited and where the traffic is less.	Remember	17	CACE007.17
29	What is Escalator?	The stairs which are kept in motion by a revolving drum is known as a Escalator.	Remember	17	CACE007.17
30	What is bifurcated stairs ?	These stairs are so arranged that there is a wide flight at the start which is subdivided into narrow flights at the mid-landing. The two narrow flights start from either side of mid landing. Generally these stairs are more suitable for modern public buildings.	Remember	17	CACE007.17

Signature of the Faculty

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