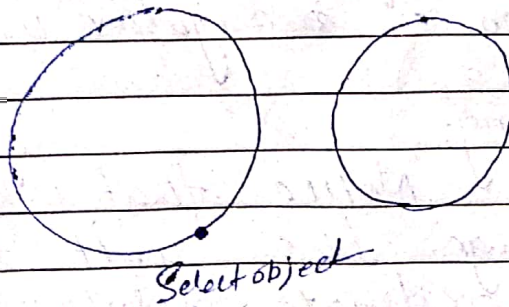


Q1 Differentiate b/w Selecting object
(a) by picking & Cross window
Selection in AutoCAD?

Ans 1) Selecting object by picking:

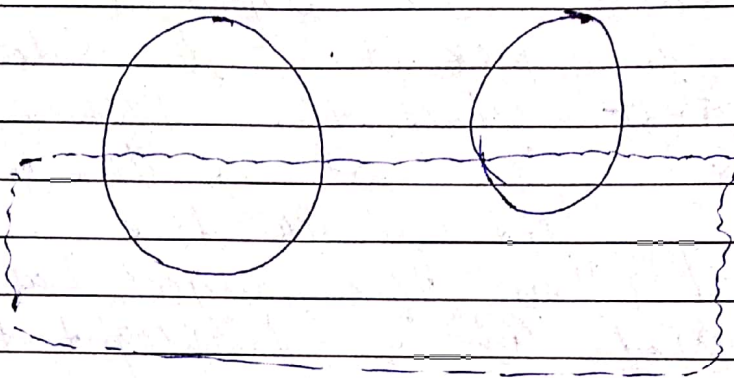
Perhaps the most obvious way to select an object is simply to pick it. To select an object place the pick box over a part of the object & left click the mouse. When the object has been picked it is highlighted in a dashed line to show that it is part of current selection & the command line report "2 found"



2) Cross window Selection:

The crossing window option is invoked by typing C at the Select objects prompt & is

Variation of the window Command
 The Command sequence is
 exactly the same but
 objects are selected which
 lie within the window
 & ~~those~~ those which cross
 the window border



Q11

(b) Define Unit Setting. Briefly
 describe the effect of
 the different unit types
 on two angular units.

Ans

Unit Setting:

Notice that when
 you change the unit type
 the co-ordinate display on
 the status bar changes
 to show co-ordinates
 using the current unit
 type. Units such as Architectural
 & Engineering are mainly for
 AutoCAD uses where feet &

d

Inches are still in common use.

The below table shows the effect of the different unit types on two angular unit values.

Unit types	12.5 Angular unit.	180 Angular unit	Description
• Decimal Degree	12.500	180.000	metric unit
• Deg/min/Sec	12 d 30' 0"	180 d 0' 0"	Degree, minutes & seconds
Grads	12.8899	200.0009	400 grads = 360 degrees
Radians	.2187	3.14159	2π radians = 360 degree
Surveyor	N 77 d 30' 0" E	W	Compass bearings

Q2 (a) Define floor plan. Briefly describe components of floor plan?

• Ans

Floor Plan

A floor plan is a drawing of the rooms & spaces in a building with a view looking downward. From above it is a type of sectional view of the building with a horizontal plan cut through

a building from above. Sheet to show.

* the arrangement of rooms.

* Horizontal dimension b/w walls to specify room size & wall lengths.

* thickness & construction of vertical wall & column that define these space.

* the position of windows & doors.

* Details like sinks, water heater, fireplaces etc.

Components of Floor Plan:-

These are four component of floor plan.

- (1) Column to column dimensions.
- (2) Door, window & other dimensions
- (3) Room tags
- (4) Furniture layout.

→ these components are individually shown on the same floor plan & then printed on separated sheets of a drawing set for easy communications.

→ all these component can be merged in one plan & can be printed on a single

Sheet rather than on multiple
~~ed~~ Sheets. etc.

⇒ In order for the client
 to easily understand & read
 these drawing all the above
 mentioned plans are printed
 separately.

Q2

(b) What is meant by site plan?

① Briefly describe importance of
 site plan.

Ans

Site plan:

A site plan is
 a view looking down
 at a building from above
~~illustrating~~ illustrating on
 the site boundary & the
 outline of the new
 building which are highlighted
 below.

⇒ paths, roads & neighbouring
 plots are also shown.
 This type of plan enables
 the builder to mark out
 the site, lay drainage
 pipes & build manholes.

Importance of site plan:-

* It ~~also~~ illustrates the
 existing natural features

Such a streets & also existing built features

* * the building outline including the roof.

* the main dimensions of the house & site

* the position & orientations of the house on the site

* Contour lines which show the slope of the land.

Q3

(a) Define foundation. Briefly describe the types of deep foundation

Ans) Foundation:

Foundation is the lower portion of a building structure under columns & walls that transfer the buildings gravity load into the soil. underneath ~~from~~ foundation.

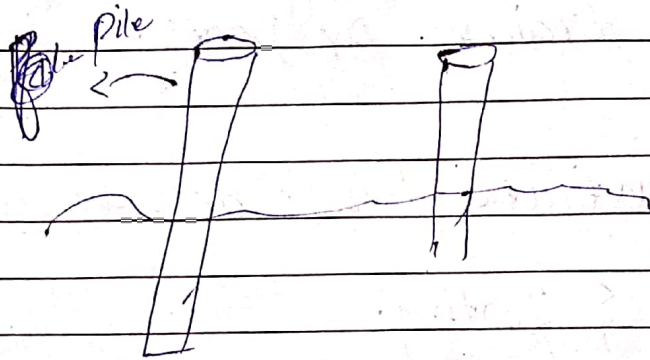
Types of deep foundation.

there are three types of deep foundation it is below

(1) Pile foundation.

pile foundation

The vertical member or a column of materials which will be driven by a pile driver & penetrated through great depth



(2) Caisson Foundation

Caisson foundation is a prefabricated hollow box or cylinder sunk into wet or unstable ground to some desired depth & then filled with concrete. Thus forming a foundation. It is called Caisson Foundation.

(3) Drilled Shaft Foundation

Drilled foundation is also called pier foundation. It is the type of deep foundation. Drilled caisson is not suitable when deep deposits

of soft clay & less water bearing granular soil exists.

& these type of foundations used for bridges & large structure such as metro-train projects.

Q₃
b

Differentiate b/w below.

(1) Piling & footing.

~~As~~ A structure need foundation that supports it. the structure is built on a soil that has bearing capacity which can withstand the weight of the whole structure. Then you can design the foundation on footing alone but if the soil is weak you can pile to penetrate further the soil have greater bearing strength.

(2) Foundation & footing.

A footing is a part of foundation or a foundation unit in brick work

masonry or concrete under the base of walls or columns for the purpose of distributing the load over a large area.

A footing is placed immediately below the lower part of super structure which transfer the load directly to the soil.

Foundation makes a base for the wall to sit on so that it doesn't push into ground.

Q4
(a)

Define isolated footing describe types of isolated footing?

Ans

Isolated footing :-

Isolated footing one of the most economical footing. Some times it is stepped to spread the load over a larger area.

They used in the case of light column loads. When column are not closely spaced. & are

Spaced at relatively long distances.

When footing provide to support an individual column then isolated footing is used.

There are various types of isolated footings.

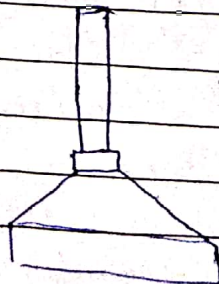
(1) Flat footing:

It is constructed under each column independently & is usually square ~~slab~~ rectangular, or circle in shape. The thickness of flat isolated footing is uniform.



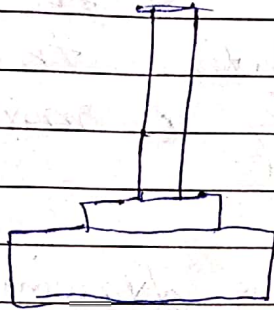
(2) Slope footing:

Slope or trapezoidal footing are designed & erected with utmost attention to maintain a top slope of 45 degree from all sides.



3) Step Footings

Previously the construction of this type of isolated footing was popular, but its application has declined. Nowadays it is generally used in the construction of residential building.



Q4
b)

Differentiate b/w following

a) ~~(*)~~ Pile foundation & an ordinary foundation:

Pile foundations are typically much deeper. They may be wide. This means that the ability of resist loads is mainly derived from the vertical friction of the side of the pile against the soil.

However, it should be noted that a number of closely spaced piles will act as a group and such can also have significant ~~end~~ resistance to loads by ~~can~~ end bearings.

Regular foundations are solely on the bearing pressure b/w the soil & the underside of the foundation they are cheaper & more common.

Q5
(a) Describe working drawing. Draw symbols used in floor plans.

Ans Working drawing.

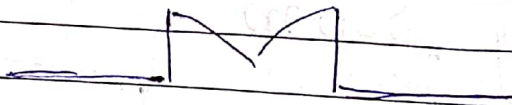
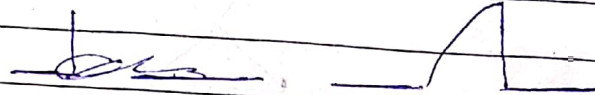
Working drawing is a drawing or blueprint based on explanations. It is completed with a thorough plan & a view (details, notes, & dimensions) to ensure ~~that~~ the product construction or replication without any additional information. After learning what is working drawing in construction.

Symbols use in floor Plan:

Walls



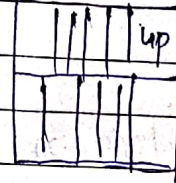
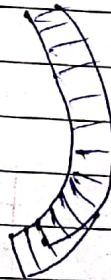
Doors



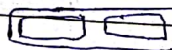
Windows



Stairs



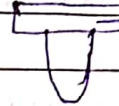
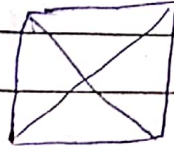
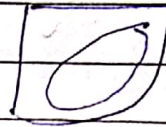
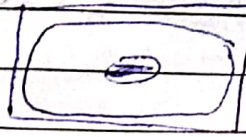
Kitchen



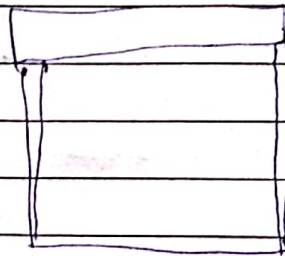
Laundry



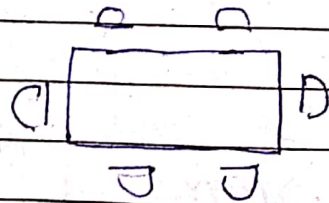
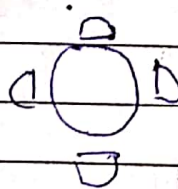
Bathrooms



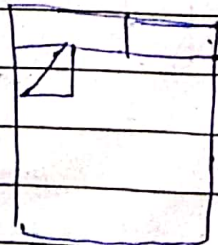
Living room



Dining room



Bedroom



Q
5

(b)

Compare Civil engineering drawing
with Architectural drawing

Ans

Architectural drawing means that the Architect focuses only on the design of the building while the engineering focuses on the technical & structural side to develop & present the design both will prepare a blueprint.

Architect focuses on the drawing map & civil drawing person focus & find the technical point in the drawing