Shri Shankaracharya Institute of Professional Management & Technology, Raipur

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Course: B.Tech **Semester:** 2nd

Branch: COMPUTER SCIENCE AND ENGINEERING

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PART ⇒ II

Q1)

Ans⇒ **Spline:**

In its simplest terms a spline is a smooth curve with a constantly changing radius which passes through a set of control points.

Because it has a constantly changing radius we cannot apply a complete dimensioning scheme in our engineering drawing.

It is purely aesthetic feature which has no bearing or interference with any other features then its details can be quite vague.

Q4)

Ans⇒ (a) **ARRAY:** The array comand makes multiple copies of selected objects in a rectangular matrix (columns and rows) or a polar (circular) pattern. This command has been completely transformed in AutoCAD 2000i. It is now completely dialogue box driven with the option to see a

Preview of the array before it is created. You can also now created rectangular arrays at a user specified angle. This constitutes a major improvement in usability.

(b) STRETCH: The ~~Strect~~ stretch command in AutoCAD is used to stretch the portion of the object partially enclosed by the polygon selection or window selection. The objects selected individually or completely enclosed by the window selection cannot be stretched. Those objects are rather moved such as ellipses, blocks and circle.

(c) FILLET: The Fillet ~~comm~~ command is a very useful tool which allows you to draw an arc between two intersecting lines or adjacent polyline segment.

It helps convert sharp edges to round edges, Even though this command can be bypassed using circles and Trim, its use will still be appreciated seeing how easy getting to the final result get while using it.

(d) CHAMFER: The chamfer command enable you to create a chamfer between any to non-parallel lines as in the illustration below or any two adjacent polyline segments. Usually, the chamfer command is used to set the chamfer distances before drawing the chamfer.

(e) SCALE: The Scale command can be used to change the size of an object or groups of objects. You are prompted for a pick point about which the selection set will be scaled. Scaling can then be completed by picking a second point (not always easy because it can sometimes be difficult to precisely control the scaling) or by entering a scale factor at the keyboard.

Q2>

Ans=> The Drawing toolbar contains a collection of icon buttons that allows the user to draw shapes and images in the document.

Name	Description
Drawing Menu	– Provides a number of features for drawing.
Select objects	– Enables you to select objects in the document.
AutoShapes	– Inserts various shapes into the document.
Line	– Draws a line.
Arrow	– Draws an arrow.
Rectangle	– Draws a rectangle or a square.
Oval	– Draws a circle or an oval circle.

(a) Point: A point in Auto CAD is point object, which can have form of both regular point and special character. Often they are also called Auto CAD nodal or anchor points, since building binding to them is carried out using object snapping node, and anchor points, as they are used to clarify / designated coordinates of objects.

(b) Line: Lines were used extensively, so almost every drawing began with marking up Liszt (Model) spase space of future part, and then it was only encircled by segments, arcs and other objects. Drawing is edited. In modern versions of systems, any drawing can be drawn without using auxiliary straight lines in Auto CAD, because we have such powerful bindings and tracking tools at our disposal.

(c) Rectangle: A rectangle is geometric flat figure - parallelogram, whose opposite sides are equal and all angles are right. Long side of rectangle is called length of rectangle, and short side is called width. Rectangle in AutoCAD is two-dimensional closed polyline consisting of four line segments. Rectangle tool builds recatangular 2D polyline using specified rectangle parameters and type of corners.

(e) Xline: Draws a line of infinite length. We can draw it free or set it to be horizontal, vertical, follow a certain angle, be the bisector of an angle or be parallel to certain line. It has no options like the ones available for XLINE, simply select a initial point a second one will define the angle.

(F) Ray: Straight line (linear object), having beginning (limited on one side), but not having an end. Ray tool is cyclic command that allowss you to build auxilliary lines(rays) starting at common point and endlesss in one direction.

PART - I

P.T.O.

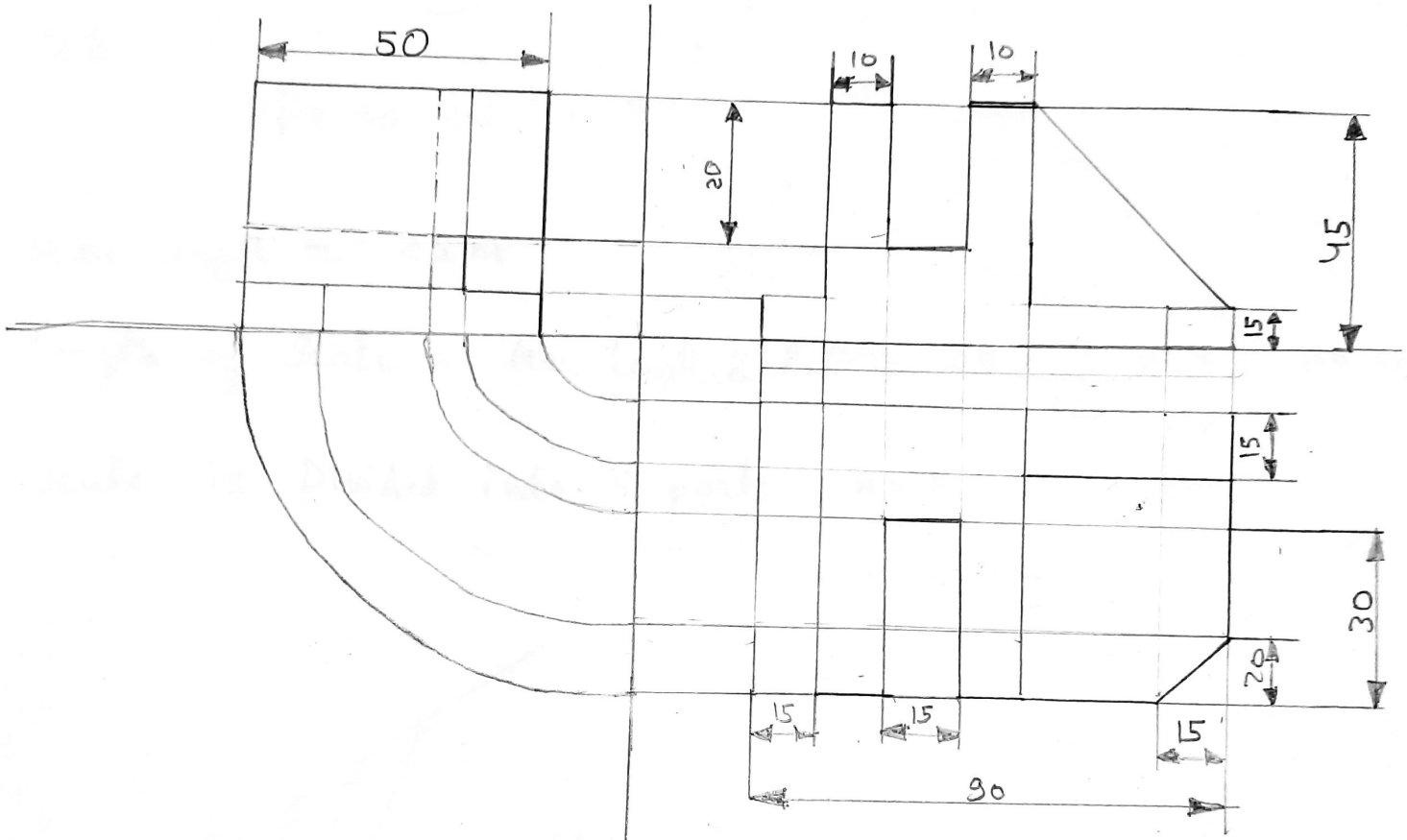
PART - I

Q1>

Ans =>

First Angle Projection method.	Third Angle project^{n} method.
1.) The object is kept in the first quadrant.	The object is assumed to kept in the third quadrant.
2.) The object lies between the observer and the plane of projection.	The plane of projection lies between the observer and the object.
3.) The plane of projection is assumed to be non-transparent.	The plane of projection is assumed to be transparent.
4.) In this method, when the views are drawn in their relative position the planes comes below the elevation, the view of object as observed from the left side is drawn to the right of elevation.	In this method, when the view are drawn in their relative position, the plan comes above the elevation, left hand side view is drawn to the left hand side of the elevation.

Q-2



Q-4