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PAPER MID TERM

TOPIC COMPUTER AIDED
BUILDING MODELING
AND DESIGN

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Question No 1

PART A

Describe application of AutoCAD.

Computer - Aided Design or CAD Drafting has been a real success by becoming the primary source of communication purpose in the AEC (Architects Engineers and Contractor) industry. Before CAD's arrival the only source for the draftsman was drawing and paper of sketches.

The traditional method of manual drafting is repeated and taking time. One the benefits of CAD drafting is that does not need manual drafting. CAD can be easily save on drafting computer server and can be accessed from anywhere with an internet connection. The change of losing the document is more is manual draft. Without the use paper CAD Drawing saved electronically and it is also an environment-friendly method.

Why AutoCAD is preferred over manual drawing.

The program illustrates several general features of all C++ programs (layer the comment line) with the statement #include <iostream> This statement is called include directive its tells the compiler and the linker that the program will be linked to library of routines that handle input from the keyboard and output to the screen. (Specifically the cin and cout statements the upper letters) The header "iostream" contains basic information about this library you'll see much more about libraries of code later in this course. I'll include a diagram in the line.

Question No 4

part "B"

what is meant by graphical user interface? Elaborate the element involved in it.

graphical user interface:-

A GUI (graphical user interface) is a system of interactive visual components from computer software. A GUI display object convey information and represent action that can be taken by the user. The object change colour size or visibility when the user interact with them.

GUI object include icons, cursors and buttons. The graphical element are some like echaneh with sounds of visual object like transparency and drops shadows.

A GUI considered to be more user-friendly than the text based command line ~~intere~~ interface such as MS-DOS or the shell of unix like operating system.

Elements involved.

A GUI uses a combination of technologies and devices to provide a platform that user interact with for the task of gathering and producing information.

A series of element conforming a visual language have involved to represent information stored Computer this makes it easier for people with Computer skill to work with Computer software. The most common combination of such element GUIs is the window icon menus, pointer (WIMP) paradigm especially is personal Computer.

The WIMP style interaction uses of virtual devices ~~represents~~ represented the position of pointing device interface of mouse and present mouse in window represented and icon available compound

Question No 2.

Command	Description	option
* Line	<p>The AutoCAD Command Line is like a Command Control panel and index of all AutoCAD Commands you run and haven't run on drawing when you type a keyboard Command. It's all the source of prompts that are embedded into AutoCAD Commands.</p>	<p>The following prompts are displayed specifying first point sets the starting point for the line. Click a point location with object snaps or grids snap turned on. The point will be placed precisely. You can also enter coordinates if instead you press Enter the prompt a new line starts from the end point of the most recently created object in an arc. The end point of the line is tangent to the arc.</p>

Command Description option .

ARC

To create an arc, can specify combination of center, end point start point radius angle chord length and direction value. Arcs are drawn in counter clockwise direction by default. Hold down in the control key as you drag to draw ~~option~~ in clockwise direction.

Draw an arc using three specified point on the arc's circumference the first point in the start point. Note. If you press Enter without specifying a point and endpoint of the last draw line or are as used and you immediately promoted to specify the end point of now arc this creates and arc tangent to the last draw line Arc polyline.

Circle.

A circle is formed in AutoCAD as sequence of straight line. Enough line are the use so that viewer is talked into believing that some of the counter if circle present this slight of

To draw a circle with AutoCAD enter and the circle command and choose one of the following question option. Center and Radius (CENRAD) -- with this option you just click where you

work because (a) the computer display resolution limits the level of detail one can see when looking in the monitor and (b) the human visual system tends to smooth jagged curves to make them look more "natural" to the human brain.

want the center point of the circle to be their mouse pointing device and establish the perimeter of the circle. the pointing device cursor the center point defines the circle's radius center diameter (CENDIA) A variation on the centered option just establish the center point circle using pointing device ~~mouse~~ than allow you to specify the circle diameter moving the point device cursor -

Command:

Description

Options

Pedit

Common uses for Pedit include joining 2D polyline and arc into 2D polyline and converting polyline into curves that approximate B-spline (spline-fit polyline). Different prompts displayed depend on type object you select to the edit.

If you select line, arc or spline you are prompted to convert object to polyline server system variable effect. This conversion.

The following prompts are displayed. -
Object selected is not polyline Do you want to turn into one displayed of the object of select is not polyline Enter Y to convert in object to polyline or n to delete the selection.
Specification of precision display. If you select a spline and converting to the polyline the precision value determine how accurately the resulting polyline is the ~~fit~~ fit the source spline. Enter a integer b/w 0 and 99.

Command	Description	Option
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osnap	<p>Seto running object Snap mode.</p> <ul style="list-style-type: none"> - the object snap of the printing setting dialog box is displayed. 	<p>The following are the current osnap option in AutoCAD tracking - specify a point that is relative (ortho or polar) to other point of the existing object.</p>
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From starts a temporary reference point which to specific a unit point.

end point connects to end point of existing object. Mid point - Finds the mid point existing object.

stretch	<p>Stretches object crossed by selection window a polygon</p>	<p>The following prompts are displayed.</p>
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Find object that are partially enclosed by crossing window

select object specifies the portion of the object that

out the center

are stretched
object that completely
enclosed with
the crossing window
or that selected
individually
are moved rather
than stretched.

Some type object
such as circle
ellipses and
blocks cannot
be stretched.

you want
to stretch use
the polygon
option for
crossing object
selection
press enter
the selection
is complete.

Question No 5 part A

What is special feature in AutoCAD?

The special feature in AutoCAD is edit shape work with object manage layer ~~measure~~

Measure. Top to reveal measurement and add dimension

View. orient yourself within a drawing.

Annotate. Mark up drawing directly.

Show external storage --- work offline ..

layer ~~step~~ setup.

The layer setup by typing new a layer short cut command is (la enter).

In layer the properties manage click New layer --

Enter a new layer name by typing ~~down~~ the highlighted layer name

For example drawing with many layers enter descriptive text and the description column.

Specify the setting default properties of the new layer by clicking in each column.

And it visible or invisible due to icon \square on/off.

Question No 3 PART B

What is meant by external reference (XREF) in AutoCAD?
Briefly describe use external reference (XREF).

Due to external reference you can import drawing in way that keep imported drawing independent of current drawing. This type of file is called an external reference or xref. The xref file does not become part of drawing database and loaded

Simultaneously with other drawing in which it is imported.

This is use mainly large project.
They keep the file size down.

They allow many users to work on individual component of the project every time and xref is loaded it is the most recent version of the drawing.

Xref can be updates added or unattached from the main drawing at any ~~way~~ time.

you can xref drawing that they then self xref other drawing (nesting).