



CAD vs PHYSICAL

Pro's for CAD

- Changes can be easily made/edits can be applied.
- Eco-friendly approach -not using physical materials.
- CAD modelling allows for easy to send to clients/other people.

Negatives for CAD

- Difficult to see/touch scale/size.
- Files can be corrupted/deleted.

CAD LIBRARY

CAD libraries allow models to be built quicker as the components are already made

They also allow more accurate modelling.

RENDERED PICTORIALS VS CAD DRAWINGS

Show materials, depth and size of the object. If question is aimed at the public then comment on the fact that people are untrained and might not understand line/2D orthographic drawings

SYMBOLS AND PLANS

British standard symbols are just knowledge - make sure you know all the symbols and their names.

Ensure you have knowledge of Floor, Site and Location Plans - their respective scales and what information you would get on them.

Ensure you understand how to calculate scale - if a drawing is printed at a specific scale how would you calculate the size of something on it.

SECTIONS

Standard components are not hatched - screws, bolts, nuts, washers.

Web's are hatched when cut across the width - but are not hatched when cut vertically - if you can see the triangle shape do not hatch it.

Holes are not hatched.

Count the amount of materials the cutting plane goes through.

Hatching lines should go in opposite directions every time the material changes.

RENDERING

CAD rendering will produce highlights, shadows, materials and textures to make a model look more realistic.

RAY TRACING IS NOT A RESULT OF RENDERING - IT IS A SETTING IN INVENTOR AND SHOULD NEVER BE USED IN AN EXAM ANSWER.

Benefits to a consumer might include seeing what the product will look like, understanding the materials can help understand comfort/grip/feeling.

Problems to the consumer are that they can't actually feel the product for weight.

DTP DEFINITIONS

DTP ELEMENTS include line, shape, colour and texture.

DTP PRINCIPLES include depth, repetition, unity, contrast, harmony alignment and dominance - all the things you can create using the elements

DTP EDITS include Text along a path/flow text, text wrap, drop shadow and transparency - there are others but these will be the focus along with FULL CROP (not cutout studio)

DTP FEATURES include the layout of the page - header, footer, heading, sub heading, margin, gutter and columns

Make sure that if a question asks for a specific one of these that you select the correct ones.

EXPLAIN

Cause and effect structure to answers - must explain why - **use the word because** - something is "easier, cheaper, faster etc"

E.g " EXPLAIN the benefit of working on the cloud"

"Its easier" is *not acceptable*

"It's easier to complete work" is also *not acceptable*

"It's easier to complete work **because** people can collaborate on tasks"

CAD Modelling

Sketch Profile

Dimension the Sketch

Extrude, Extrude with Taper, Revolve.

3D Edit - chamfer, fillet, shell (remove face)

Check you have used every dimension - if not you will lose marks.

Explain what edge, face, surface is being edited.

DTP

Tackle these questions like everything you've done all year. Break it into 3 steps:

1. **Describe what has been done** - " line has been used"
2. **Explain where it has happened** "under the heading/at the top right"
3. **Explain what the effect is** "this separates it from the rest of the page/this leads the eye to something else"

The header, body text and image are all left aligned - this makes the page neater and easier to read. - You must mention what has been aligned and what type of alignment is used.

The colour blue has been repeated in the title, image and footer - this creates a sense of unity **WHICH TIES THE PAGE TOGETHER.** This final sentence is the effect and must be stated.

The flashbar is layered behind the text - this creates depth and makes the text easier to read.

ALIGNMENT

UNITY

DEPTH

BRITISH STANDARDS ERRORS

There will be at least one error on each view.

Look for wrong line types:

- sectional hatching lines should be different directions
- Centre lines and cutting planes should be looked at.

Look for incorrect dimension standards - above the line.

Check that Radius and Diameters are used correctly.

Check each view is in correct orientation - direction. 1st angle vs 3rd angle