

OXLEY COLLEGE

"STUDY GUIDE"

YEAR 7

TECHNOLOGY MANDATORY

GRAPHICS TECHNOLOGY

This study guide will give you an excellent idea of the format of the yearly exam and of the type of questions you will be asked.

Q1. In your own words define what "Design" is. (2 marks)

Q2. What is Technology? (2 marks)

Q3. Briefly explain what you think is the relationship between "Design" and "Technology". (2 marks)

Q4). Briefly explain each of the following steps of the Design Process in general terms:

a). The Design Brief: (2 marks)

Q4). (continued)

Briefly explain each of the following steps of the Design Process in general terms:

b). Analysing the Brief: (2 marks)

c). Research: (2 marks)

d). Ideas: (2 marks)

e). Design Development: (2 marks)

f). Production: (2 marks)

g). Evaluation: (2 marks)

Q5). Why is evaluation such an important part of the design process? (2 marks)

Q6). Should evaluation **only** be carried out at the end of a design process? (2 marks)

Q7). Explain why or *why not*? (2 marks)

Q8).

(10 marks)

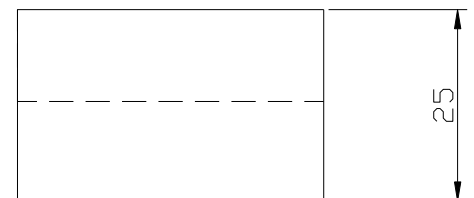
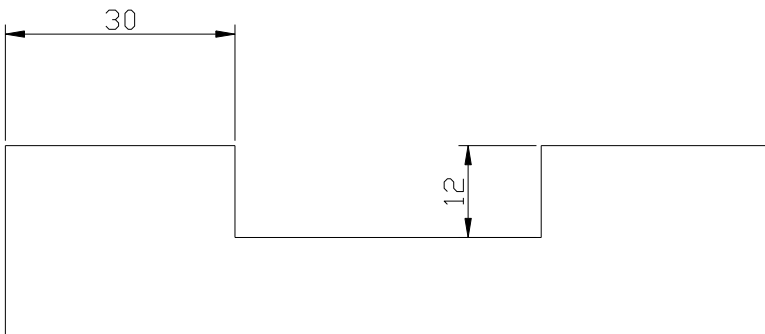
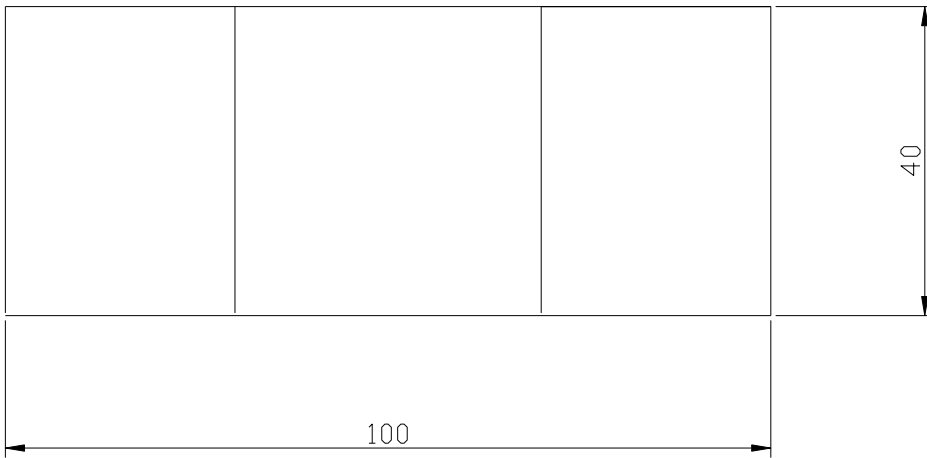
Shown below is an **Orthographic** drawing of an object.

a) Label the views correctly

b) In the space below draw an **Oblique** drawing of the object.

Sizes must be accurate.

Lines are to be drawn with a rule or a set square.



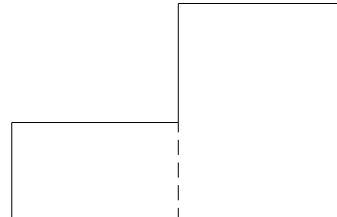
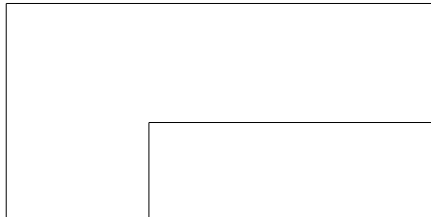
Q9).

(10 marks)

Shown below is an **Orthographic** drawing of an object.

In the space below draw a **Freehand Pictorial Sketch (Isometric or Oblique)** of the object.

This must be a **FREEHAND DRAWING**

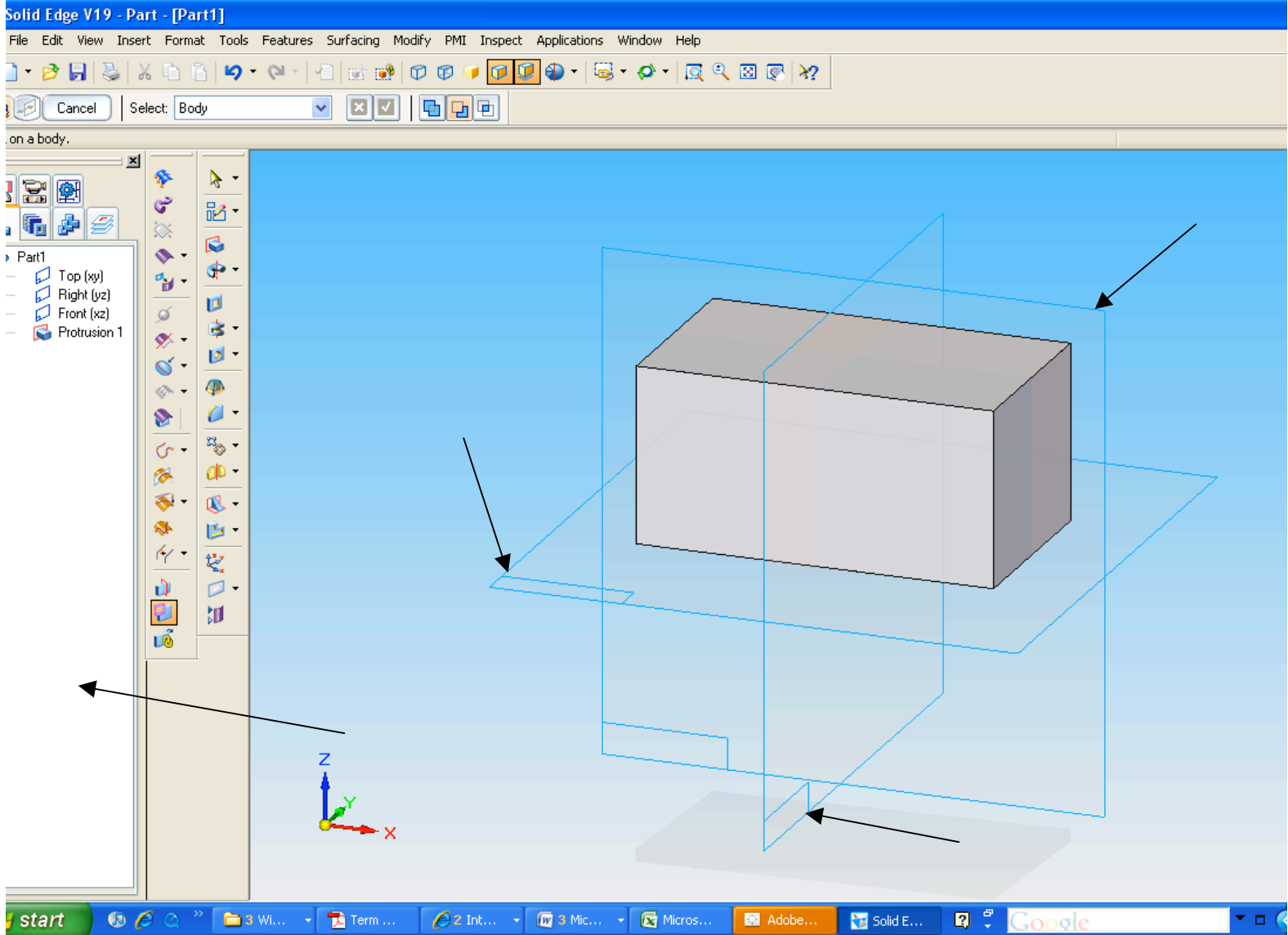


Q10)

a). On the screen Solid Edge screen shot shown below circle the tool on the vertical tool bar that would have been used to produce the solid block shown. (1 mark)

b). What is the name of this tool?

_____ (1 mark)



c). On the screen shot above label the following by placing the correct number next to the appropriate arrow:

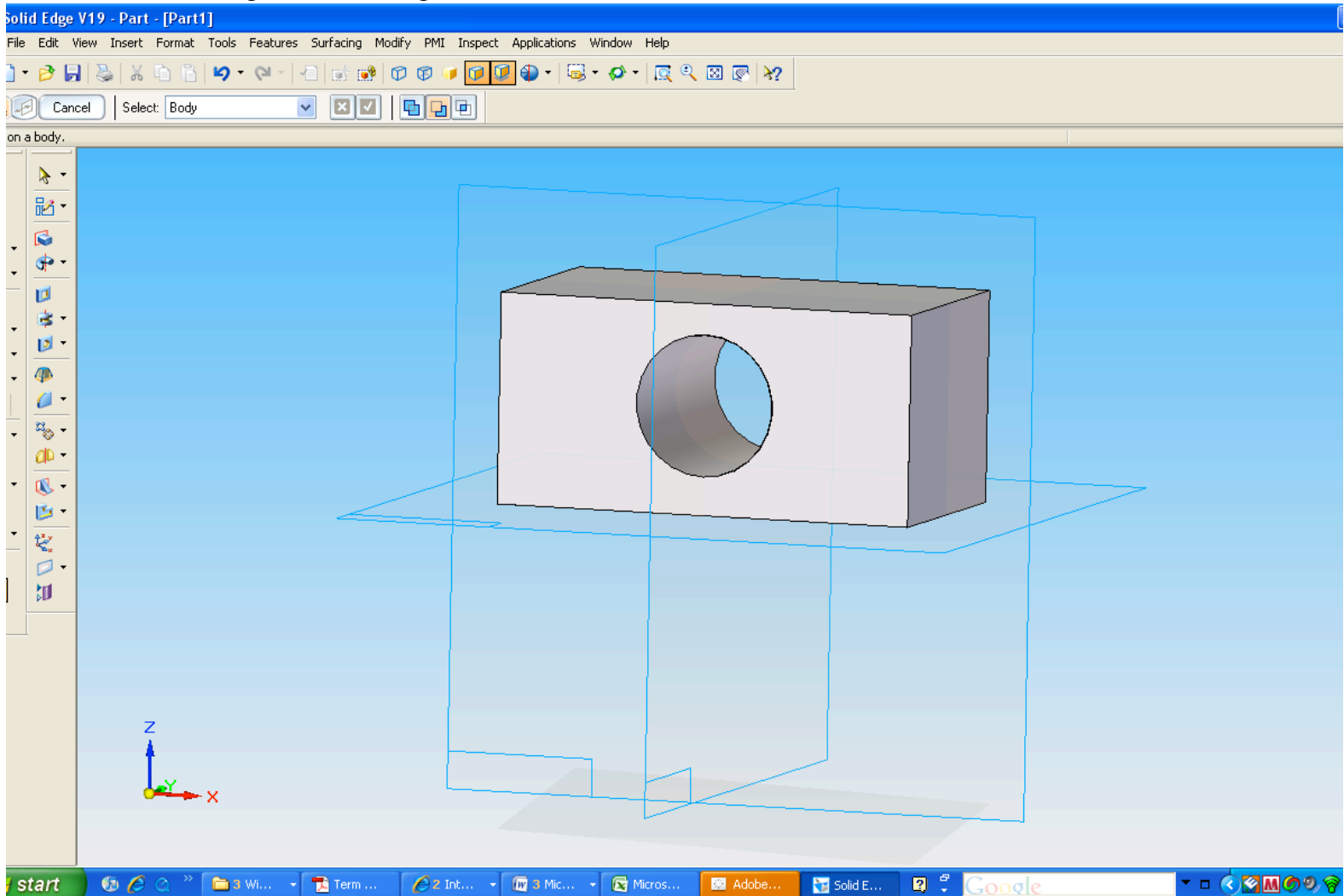
1. Top Reference Plane (2 marks each)
2. Front Reference Plane
3. Right Reference Plane
4. Edge Bar (I sometimes call this the "history tree")

Q 11). (2 marks each)

a). On the screen shot below **circle** the tool used to create the hole through the block

b). What is the name of this tool? _____

c). Shade the face that would have been selected to draw the circle on prior to actually cutting the hole through the block.



d). What two steps now need to be carried at this stage in order to ensure that the hole created above is not “lost”?

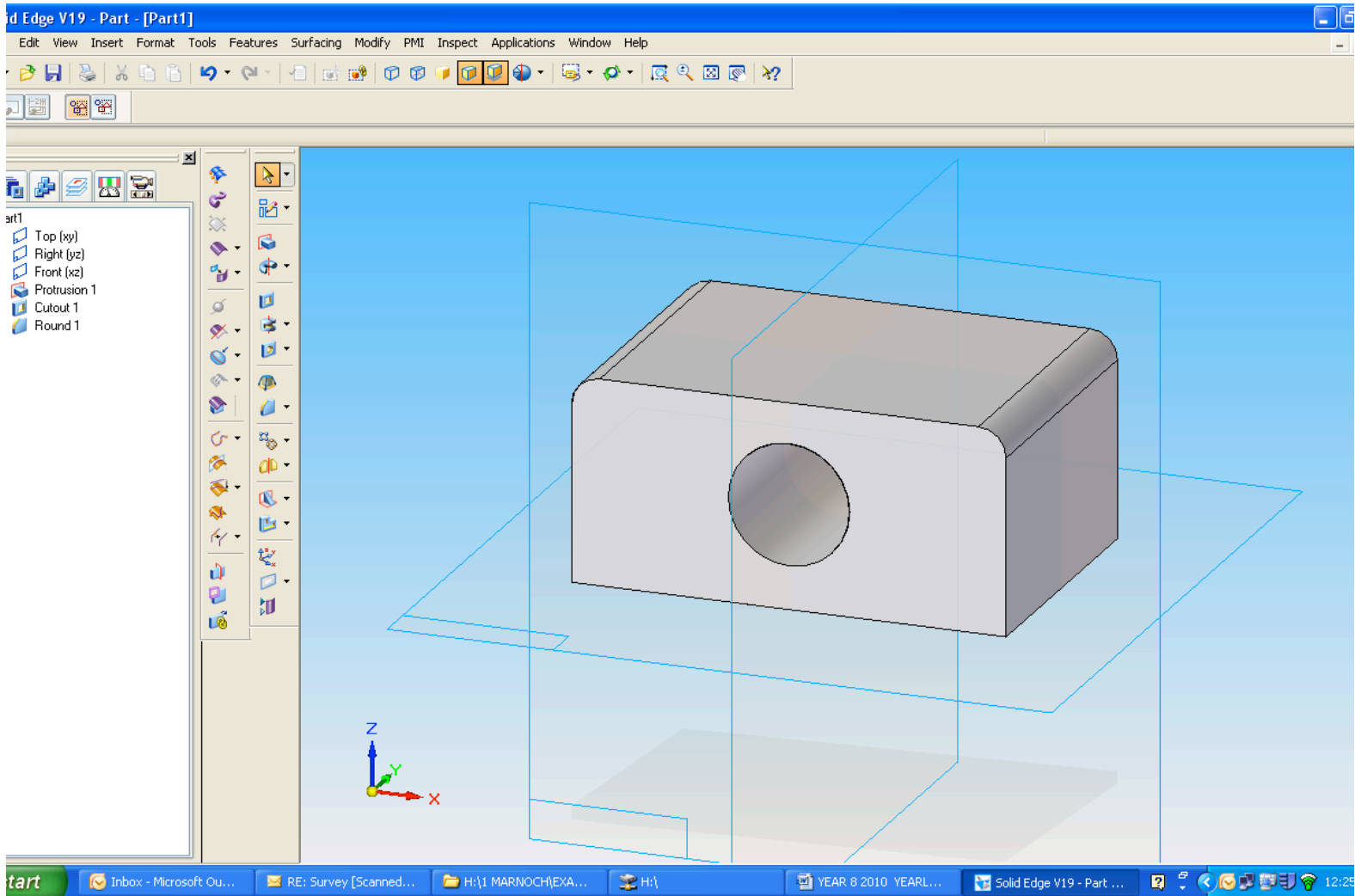
1. _____ (2 marks)

2. _____ (2 marks)

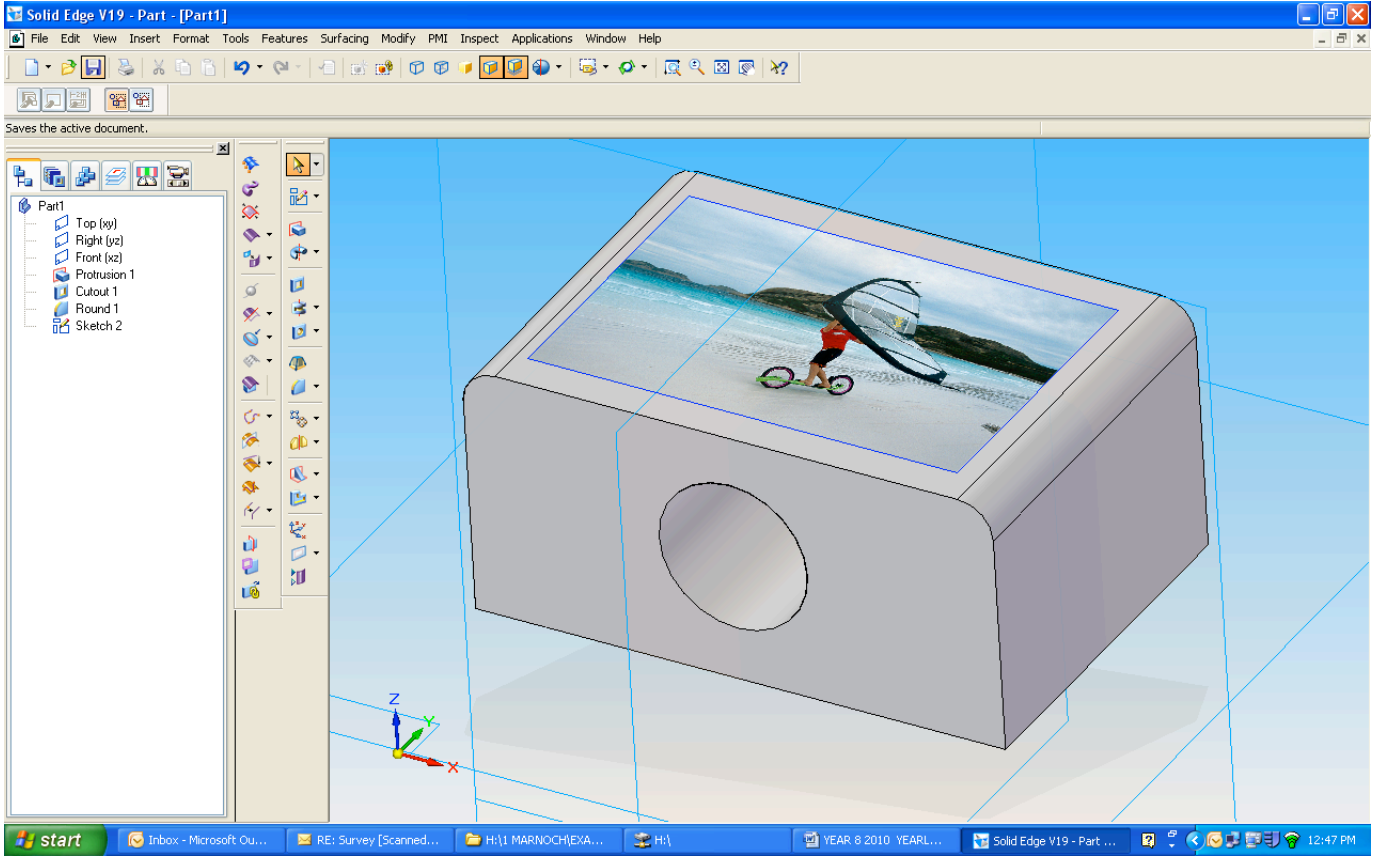
Q 12). (2 marks each)

a). On the screen shot below **circle** the tool used to create the curved edges.

b). What is the name of this tool? _____



c). Explain briefly how I could write my name on one of the faces of the block. (5marks)



Q13). Briefly outline how I would insert the image on the top face of the block as shown above. (5 marks)

Q16).

Imagine that you are an Industrial Designer working for Casio.
You have just been given the following design brief.

Design Brief

Design and present concept sketches for a small hand held calculator.
This calculator is to be aimed at young primary school pupils ie. Years 2 and 3.

It must:

- Be visually appealing
- Have only the main mathematical functions i.e. +, -, x, ÷, =.
- Be of a size which can be easily held and operated by a child of this age.

On the following pages you are to:

- a) Draw at least 4 different ideas (freehand pictorial) for the calculator. (5 marks)
- b) Draw a neat freehand Orthographic drawing of your best design including overall dimensions.

(5 marks)

Q16). **IDEAS SKETCHES**

Q16). FINAL DESIGN - ORTHOGRAPHIC DRAWING

Remember to include overall dimensions.

Outline outstanding features on the next page.

