

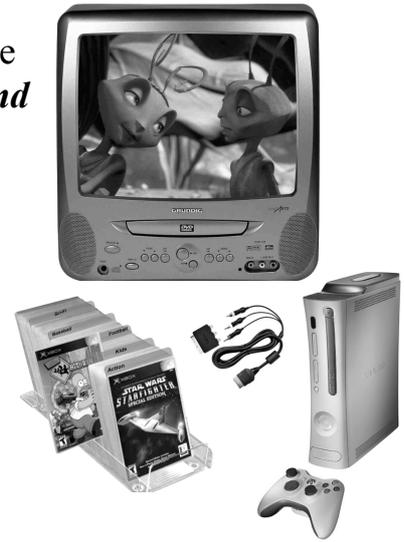


2. (i) The following list describes a number of steps that are usually undertaken in a process of design.

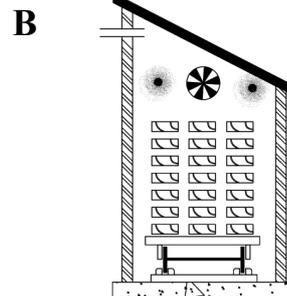
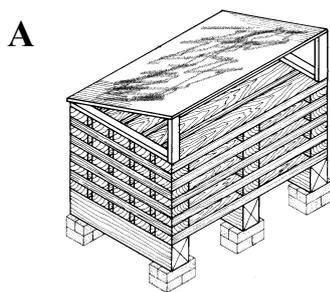
**Design Ideas/Solution      Investigation and Research      Evaluation**  
**Analysis of Brief              Sketches/Working Drawings**

Place these steps in their correct order and write a short note explaining any **TWO** of the steps in the process.

- (ii) The diagram shows a television, games console and accessories. Using notes and *neat freehand sketches* to communicate your ideas, design a unit that will store and display these items.
- (iii) State **TWO** specific design requirements that must be considered for the proposed unit.
- (iv) Suggest a suitable material for the manufacture of the proposed unit and give **TWO** reasons for your selection.



3. (i) Name the two methods of seasoning, **A** and **B**, shown in the diagrams and state **TWO** advantages and **TWO** disadvantages of each method of seasoning.



- (ii) Explain what is meant by the term **Equilibrium Moisture Content (EMC)**.
- (iii) When wood is used in external situations it is normally treated with a **Preservative**. State **TWO** reasons for the use of preservatives and name **TWO** classes of preservative.
- (iv) Name **THREE** methods of applying preservatives, and state **ONE** advantage and **ONE** disadvantage of each method.

4. Answer either A or B

A. The diagram shows a storage chest for toys. The chest is made from pine.

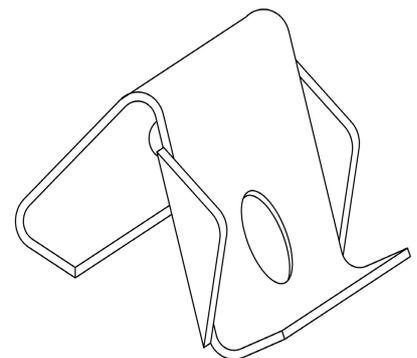
- (i) With the aid of *neat freehand sketches*, describe *in detail*, the steps you would follow to prepare the wood for a clear applied finish.
- (ii) Select an appropriate clear finish for the chest and give **TWO** reasons in support of your choice.
- (iii) With the aid of *neat freehand sketches*, describe *in detail* the steps you would follow in the application of your chosen finish.
- (iv) State **TWO** specific safety precautions that should be observed when using applied finishes.



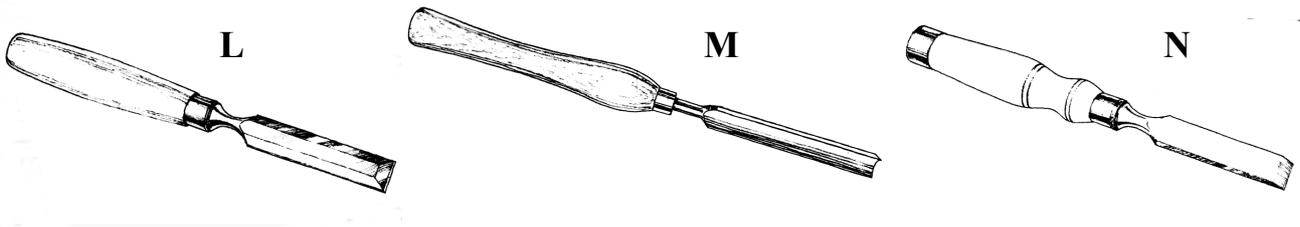
OR

B. The diagram shows a mobile phone holder manufactured from acrylic.

- (i) Using *neat freehand sketches*, draw the development that would be marked out on an acrylic sheet in order to manufacture this holder.
- (ii) With the aid of *neat freehand sketches*, describe *in detail* the steps you would follow to **CUT OUT** and **FORM** the holder.
- (iii) With the aid of *neat freehand sketches*, describe how you would bore the hole in the acrylic sheet.
- (iv) With the aid of *neat freehand sketches*, suggest a suitable design for a wooden base for the holder that would incorporate a storage facility for a notepad and pen.



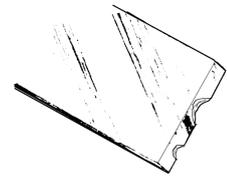
5. (i) State the correct names for the tools labelled L, M and N.



(ii) What is the correct angle, A, for the cutting edge of a chisel when sharpening it?



(iii) Describe, *in detail*, using notes and *neat freehand sketches*, how you would sharpen a chisel that has a badly damaged cutting edge such as that shown in the diagram.



(iv) With the aid of notes and *neat freehand sketches*, describe *in detail* the steps you would follow to cut out the trench shown in the diagram.

