

Candidate Name	Centre Number	Candidate Number

WELSH JOINT EDUCATION COMMITTEE



CYD-BWYLLGOR ADDYSG CYMRU

ENTRY LEVEL CERTIFICATE

TYSTYSGRIF LEFEL MYNEDIAD

725/05

**Entry Level Certificate**

**GRAPHICAL AND MATERIAL STUDIES**

**(Core)**

P.M. THURSDAY, 15 March 2007

(½ Hour)

**Examiner only**

<b>Total Marks</b>	
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**INSTRUCTIONS TO CANDIDATES**

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** the questions.

Underline the correct answer **or** sketch **or** write in the spaces provided in this booklet.

If you have difficulty in reading a question, put up your hand and the teacher-in-charge will read it to you.

**INFORMATION FOR CANDIDATES**

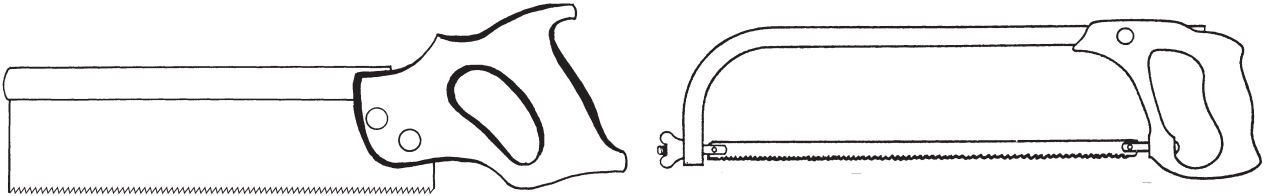
**Each** question carries **five** marks.

No certificate will be awarded to a candidate detected in any unfair practice during the examination.

Answer **all** questions.

*Underline the correct answer or sketch or write in the spaces provided.*

1. The saws shown below are used in the Design and Technology room.



The saws are used for **one** (1) of the following:

- (a) cutting curved lines;
- (b) cutting wavy lines;
- (c) cutting straight lines;
- (d) cutting awkward shapes.

**Underline** the correct answer.

[5]

2. The tool shown below is a Countersink bit used in the Design and Technology room.



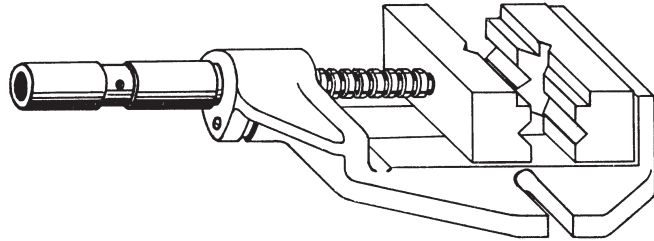
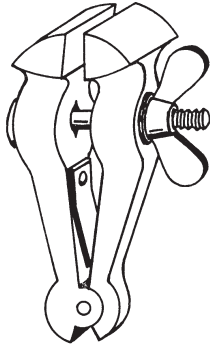
The tool is used for **one** (1) of the following:

- (a) before drilling a hole to show where the centre is;
- (b) making big holes;
- (c) putting a 'slope' around the top of holes;
- (d) to make a hole look bigger.

**Underline** the correct answer.

[5]

3. The sketches below show **two** (2) types of holding devices which are mainly used on **one** (1) machine in the Design and Technology room.



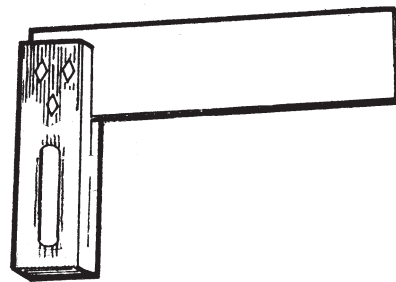
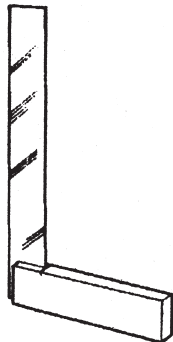
The holding devices are used for **one** (1) of the following machines:

- (a) Bench Grinder;
- (b) Pedestal Drill;
- (c) Sanding Disc;
- (d) Lathe.

**Underline** the correct answer.

[5]

4. The tools shown below are used in the Design and Technology room.



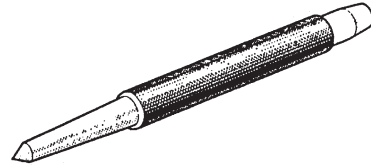
The tools shown are used for **one** (1) of the following:

- (a) marking lines which cross on the material;
- (b) marking any line on the material;
- (c) marking lines at right angles across the material;
- (d) marking lines parallel to the edge of the material.

**Underline** the correct answer.

[5]

5. The tools shown below have similar names and are used in the Design and Technology room.



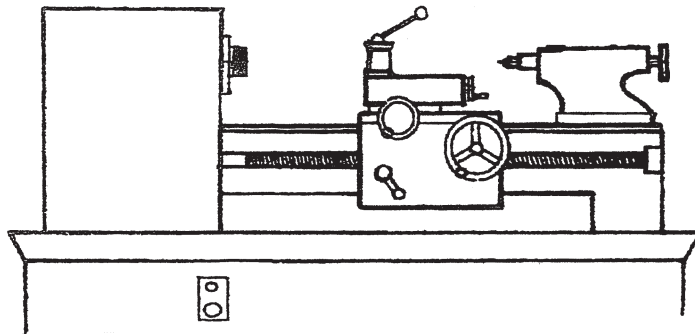
The tools shown are called **one** (1) of the following:

- (a) Punches;
- (b) Chisels;
- (c) Files;
- (d) Markers.

**Underline** the correct answer.

[5]

6. The machine shown below is used in the Design and Technology room.



The machine is used for **one** (1) of the following:

- (a) moulding plastic;
- (b) turning metal;
- (c) bending metal;
- (d) dip coating metal.

**Underline** the correct answer.

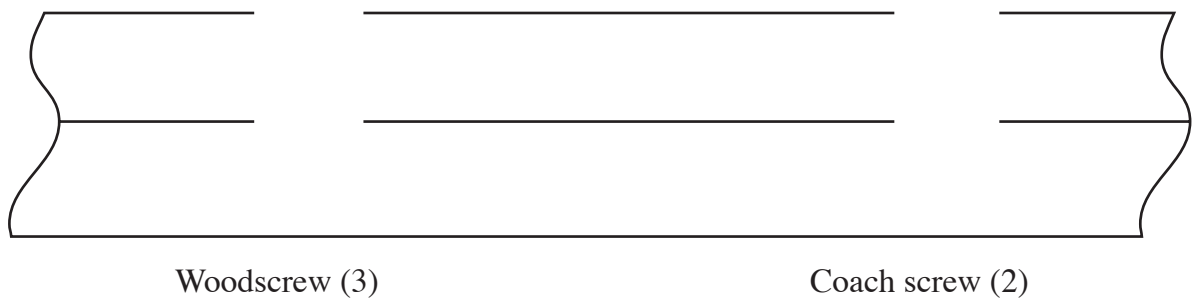
[5]

7. The diagram below shows **two** (2) pieces of material which are going to be ‘joined’ together by:

- (i) a woodscrew
- (ii) coach screw

The **holes** for the woodscrew are different than those for the coach screw.

On the unfinished drawing complete the shape of the holes for the countersink woodscrew and the coach screw. [5]

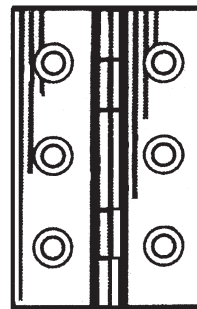


8. The fixtures and fixings shown below are all used in the Design and Technology room.

**On the lines** complete the correct names of the fixtures and fixings.



..... Nail (1)



..... Hinge (2)



..... Nut (2)

[5]

9. This question is about workshop safety.

**Complete** the following sentence.

When carrying sharp tools in the Design and Technology area you must always

.....

.....

.....

[5]

10. SLOT and CROSS HEAD are both types of **one** (1) of the following:

- (a) nails;
- (b) screws;
- (c) hinges;
- (d) bolts.

**Underline** the correct answer.

[5]

11. Open Hearth and Bessemer are words used in connection with **one** (1) of the following processes:

- (a) Steel production;
- (b) Plastic production;
- (c) Timber conversion;
- (d) Recycling.

**Underline** the correct answer.

[5]

12. There are many types of spanners used in the Design and Technology room.

(a) On the lines below, **name three** (3) spanners.

(i) ..... [1]

(ii) ..... [1]

(iii) ..... [1]

(b) **Complete** the following sentence.

One of these spanners is used to .....  
..... [2]

13. On the lines below **name three** (3) different Marking out tools which are used in the Design and Technology room.

(a) ..... [1]

(b) ..... [2]

(c) ..... [2]

14. **Choose one** (1) of the materials you have used and **describe** how you could BEND it easily.

Material ..... [1]

Bending Process .....

.....

.....

..... [4]

15. On the lines below **name five (5) cutting tools** used in the Design and Technology room.

- (a) ..... [1]
- (b) ..... [1]
- (c) ..... [1]
- (d) ..... [1]
- (e) ..... [1]

16. On the lines below **name three (3) different Materials** which are used in Design and Technology. **DO NOT** use the words: Wood, Timber, Metal or Plastic.

- (a) ..... [1]
- (b) ..... [2]
- (c) ..... [2]

17. On the lines below, **state five (5) safety rules** you must obey when using portable power tools.

- (a) ..... [1]
- (b) ..... [1]
- (c) ..... [1]
- (d) ..... [1]
- (e) ..... [1]



18. In the space below, **sketch** a Joint that you have made in the Design and Technology room. [5]

19. In the space below, **sketch** a Cramp that you have used in the Design and Technology room. [5]

20. **Render** the 'block' below to make it look like a piece of timber. [5]

