



4.3 WOODWORK (444)

4.4.1 Woodwork Paper 1 (444/1)

SECTION A (40 marks)

Answer ALL the questions from this section in the spaces provided.

- 1 (a) State **four** safety measures to be observed while using hand tools in a workshop. (2 marks)
(b) List **two** benefits of learning woodwork. (1 mark)
- 2 Explain the difference between a compass saw and a keyhole saw. (4 marks)
- 3 (a) Sketch and label pictorial view of a marking gauge. (4 marks)
(b) List the steps required to prepare a timber surface to receive polish. (2 marks)
- 4 Explain the functions of each of the following parts of a lathe machine:
(a) head stock; (1½ marks)
(b) tail stock. (1½ marks)
- 5 (a) With the aid of a sketch, differentiate between the grinding angle and the sharpening angle of a jack plane blade. (2 marks)
(b) State **four** advantages of using a wooden handle on a claw hammer. (2 marks)
- 6 (a) Differentiate between paring and chopping as used in chiselling. (2 marks)
(b) Describe the following terms as used in woodwork:
(i) counter sinking; (1½ marks)
(ii) counter boring. (1½ marks)
- 7 (a) Make sketches to show the following methods of matching veneers:
(i) side to side pattern; (1 mark)
(ii) diamond pattern. (1 mark)
(b) State **two** safety precautions to be observed while using contact glue. (1 mark)
- 8 (a) Sketch and label an exploded view of a mitred angle bridle joint. (3 marks)
(b) State **two** reasons for considering the direction of the grain before planing a piece of timber. (1 mark)

- 9 State **two** advantages and **two** disadvantages of using paint on a wooden surface. (4 marks)
- 10 Figure 1 shows a wooden block drawn in first angle orthographic projection.

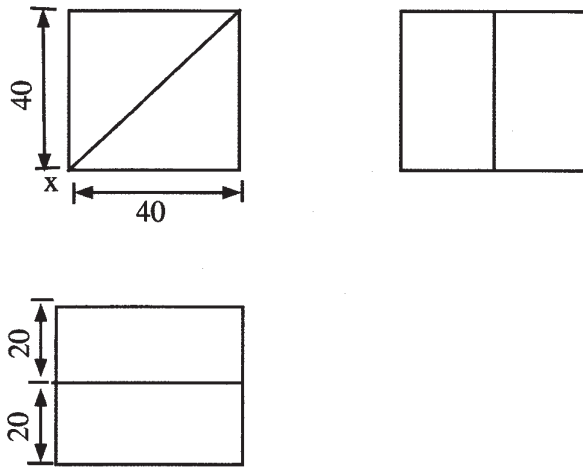


Figure 1

Sketch an isometric view of the block making X the lowest point. (4 marks)

SECTION B (60 Marks)

Answer **question 11** on A3 paper provided and any other **THREE** questions from this section in the spaces provided after question 15.

Candidates are advised **NOT** to spend more than **25 minutes** on question 11.

- 11 Figure 2 shows a pictorial view of a shaped block.

Draw full size, in third angle projection the three views of the block. Insert **six** major dimensions. Use A3 drawing paper provided. (15 marks)

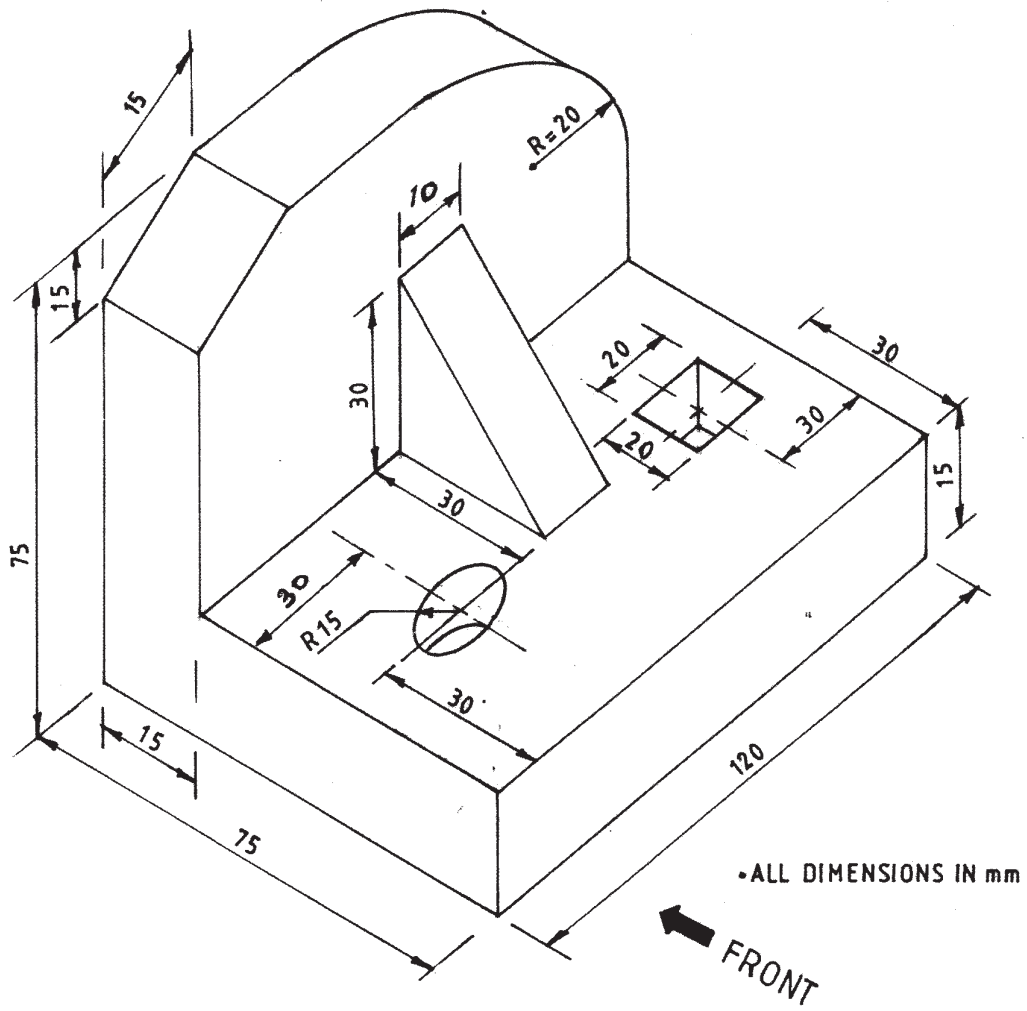


Figure 2

- 12 (a) Name **two** types of saw sets. (1 mark)
- (b) Figure 3 shows a wooden block with a rebate 45 mm width and 15 mm depth.

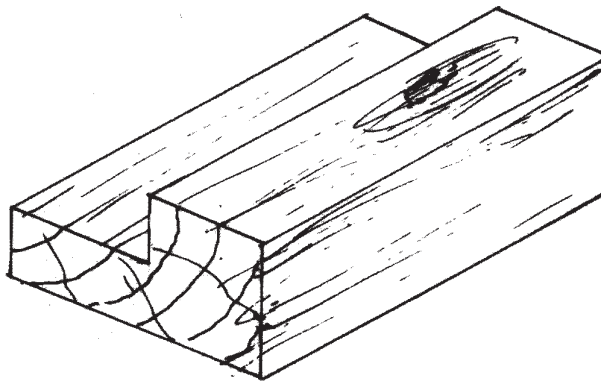


Figure 3

Outline the procedure of cutting the rebate using a rebate plane. (7 marks)

- (c) Figure 4 shows a wooden tray made of cypress and a 3 mm thick plywood bottom.

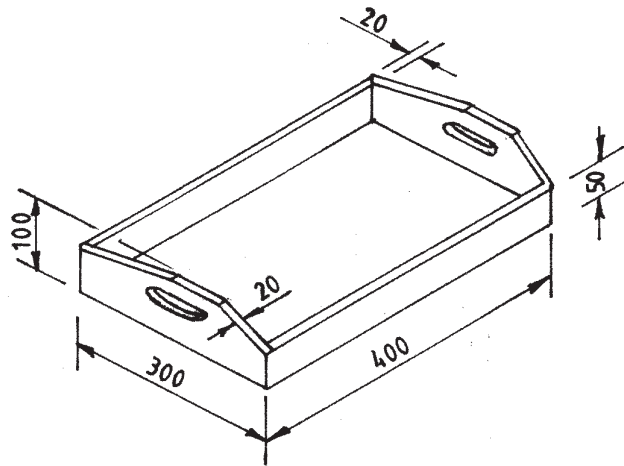


Figure 4

Make a cutting list for the finished sizes of the tray.

(7 marks)

- 13 (a) List **four** items that should be in a First Aid Kit.

(2 marks)

- (b) Figure 5 shows a cupboard lock:

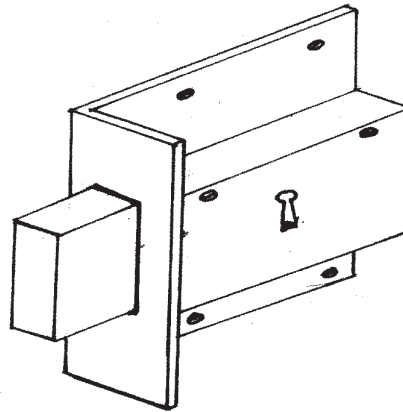


Figure 5

- (i) outline the procedure of fixing the lock on the shutter; (7 marks)
- (ii) list **four** tools used in the procedure in (b)(i) above. (2 marks)
- (c) State **four** characteristics of timber that has been attacked by dry rot. (4 marks)

- 14 (a) Define conversion of timber. (1 mark)
- (b) (i) Sketch a cross section of a tree trunk and label the following parts:
- (I) cambium layer;
 - (II) sapwood;
 - (III) heartwood;
 - (IV) bark. (4 marks)
- (ii) Explain the function of each of the parts in (b)(i) above. (4 marks)
- (c) Outline the procedure of applying a clear varnish on a wooden surface using a brush. (6 marks)
- 15 (a) Differentiate between inlaying and overlaying. (3 marks)
- (b) With the aid of labelled sketches, explain the following methods of cutting veneers:
- (i) rotary methods;
 - (ii) plain slicing. (8 marks)
- (c) State **two** faults that occur on doors hung with butt hinges and give one cause of each fault. (4 marks)

4.2.2 Woodwork Paper 2 (444/2)

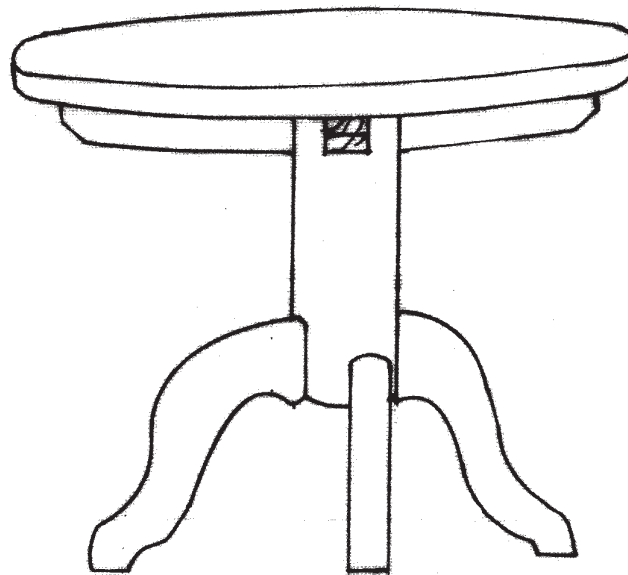
Using the materials provided, make the **COFFEE STOOL** as shown on the working drawings.

NOTES:

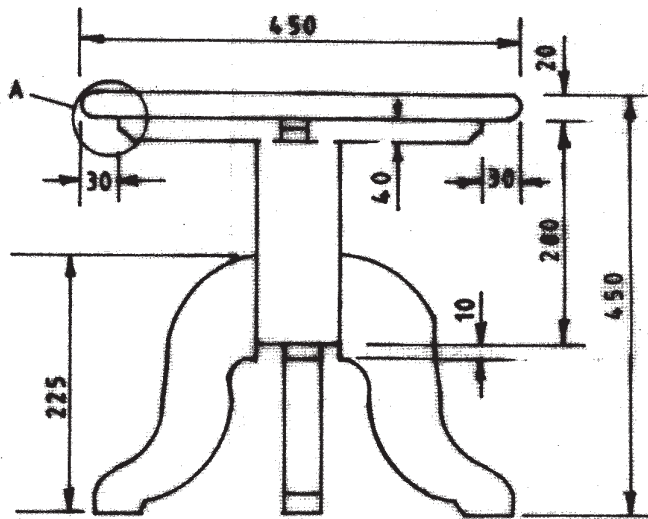
1. The project should be made using **HAND TOOLS** only.
2. All dimensions are in millimetres unless otherwise stated.

GENERAL TOLERANCES

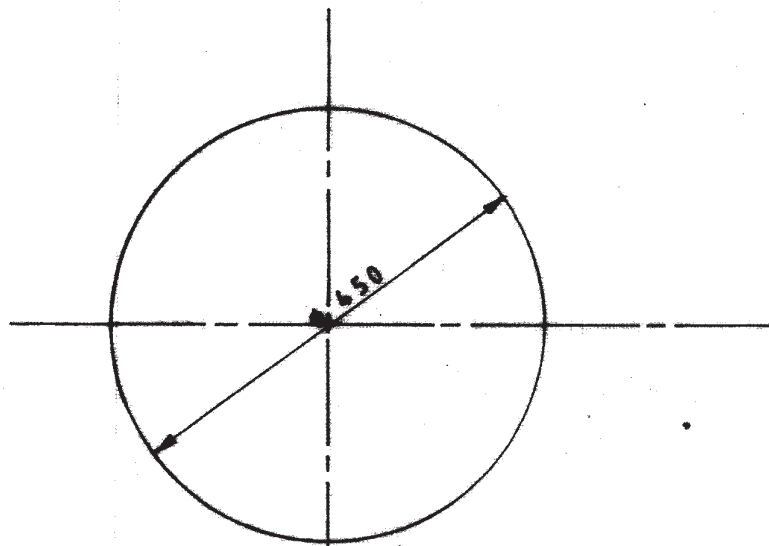
- (a) ± 0.1 mm on all dimensions greater than 250 mm.
 - (b) ± 0.5 mm on all dimensions less than 250 mm.
 - (c) 0.5 mm on all joints.
3. Use your discretion to determine dimensions not shown.
 4. Assemble the project using glue and screws as appropriate.
 5. Apply clear finish on the project.
 6. Write your index number on the project.
 7. **This paper consists of 5 printed pages.**
 8. **Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**



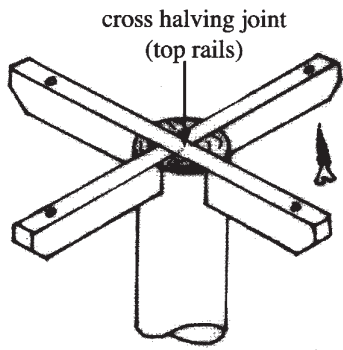
PICTORIAL VIEW



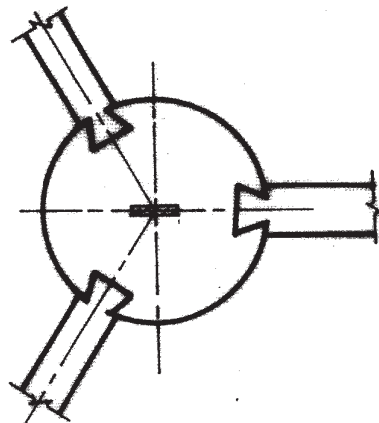
FRONT ELEVATION



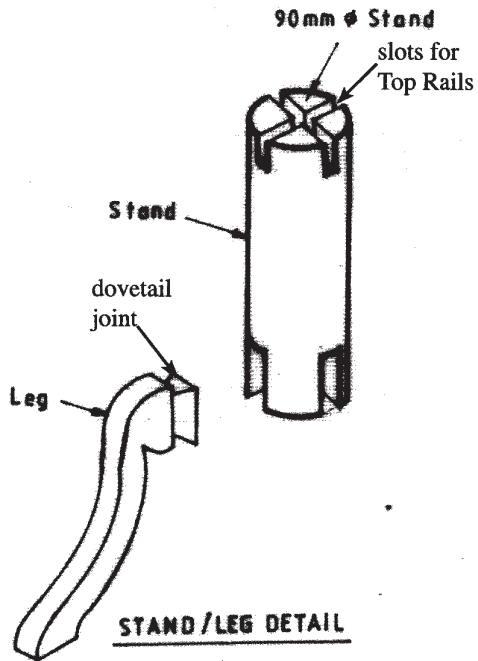
ROUND TOP



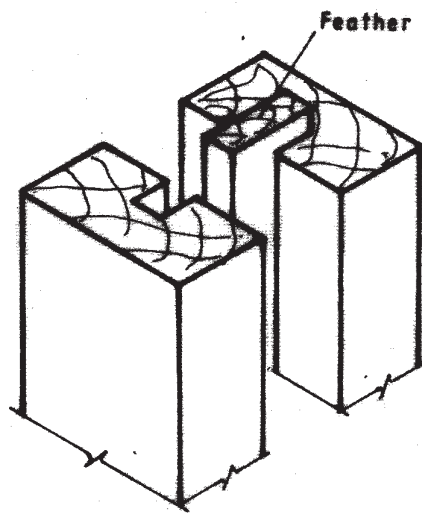
TOP RAIL AND STAND DETAIL



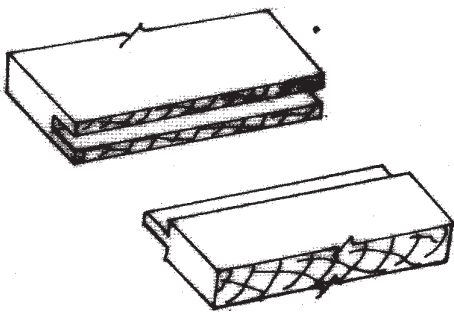
STAND UNDERSIDE DETAIL



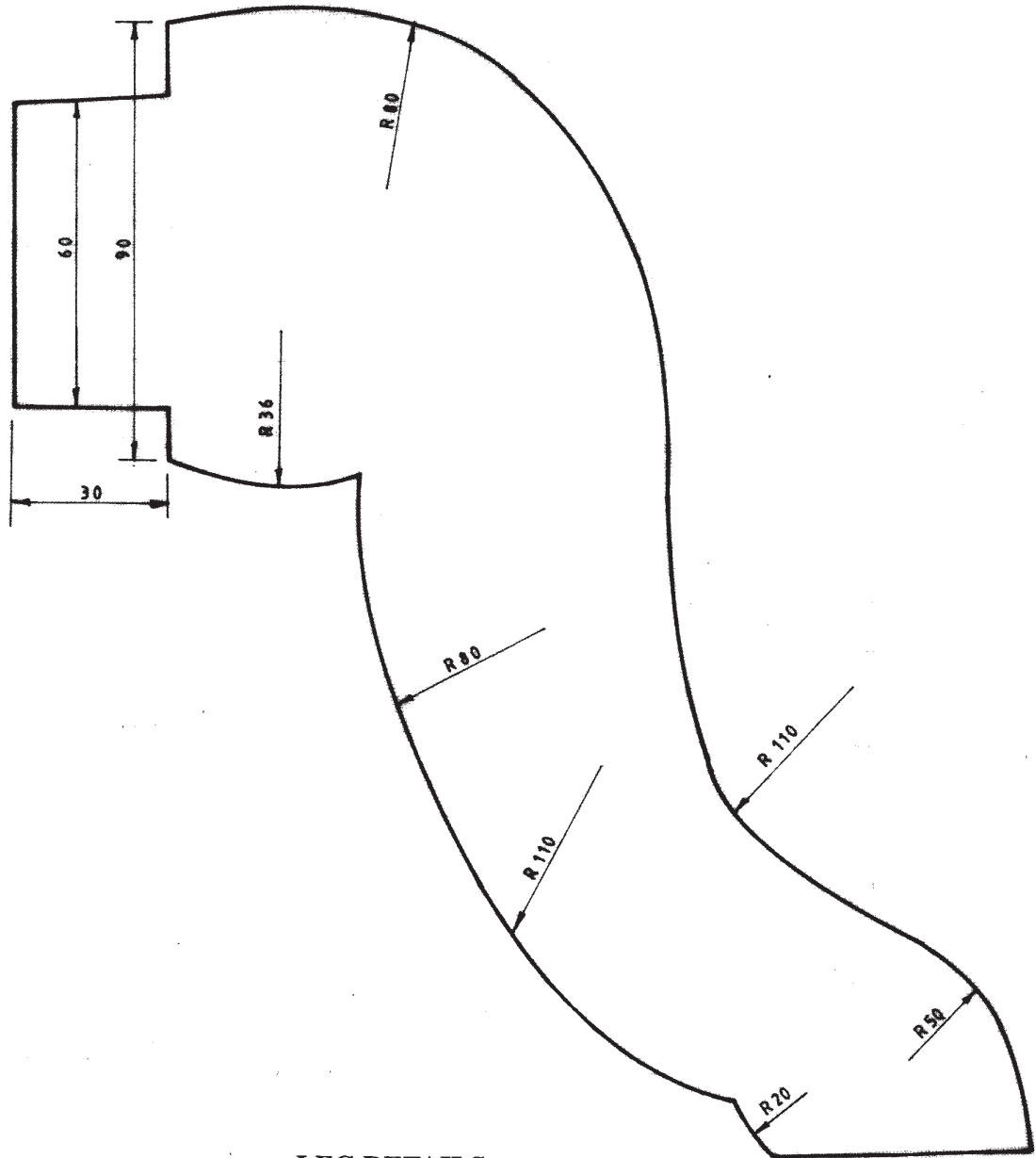
STAND/LEG DETAIL



50 x 100 JOINED WITH FEATHER JOINT AND SHAPED INTO STAND



TONGUED AND GROOVED FOR TOP



LEG DETAILS