

4.4 WOODWORK (444)



4.4.1 Woodwork Paper 1 (444/1)

SECTION A (40 marks)

Answer *all* the questions in this section

- 1 (a) List **four** safety attire required in a workshop. (2 marks)
- (b) State **four** ways in which waste wood can be utilized. (2 marks)
- 2 State **four** factors to consider when:
 - (a) making an order for plywood; (2 marks)
 - (b) determining the method of conversion of timber. (2 marks)
- 3 Figure 1 shows a hole drilled in a piece of timber.

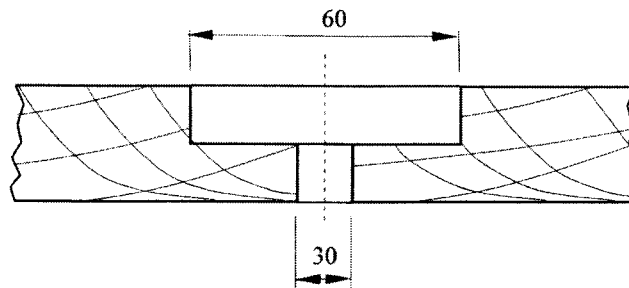


Figure 1

- Outline the procedure of drilling a hole using an expansive bit. (3 marks)
- 4 (a) Give **two** reasons for setting the saw teeth. (2 marks)
 - (b) Outline the procedure of setting the saw teeth. (2 marks)
 - 5 Figure 2 shows a defective blade of a jack plane.

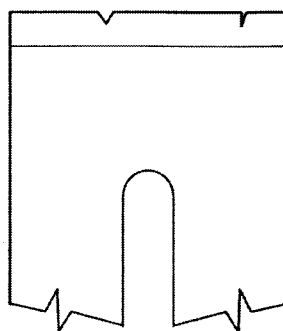


Figure 2

- Outline the procedure of reconditioning the blade. (4 marks)

6 With the aid of sketches, explain how the **two** types of calipers are used to take measurements. (5 marks)

7 Figure 3 shows a tool used for cutting grooves

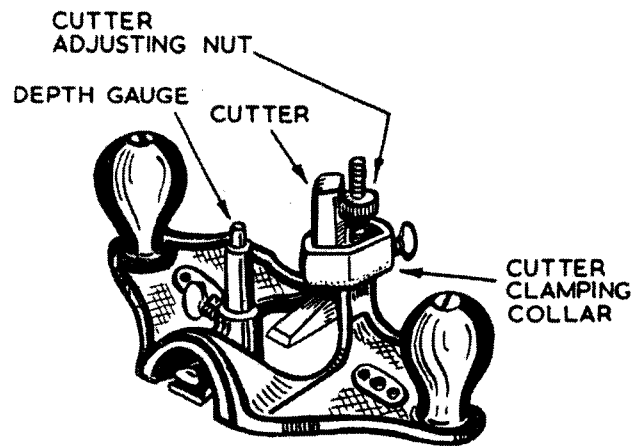


Figure 3

- (a) Name the tool. (1 mark)
- (b) Outline the procedure of cutting a groove using the tool. (2 marks)
- 8 Outline **three** faults which may occur when fitting hinges and state **one** effect of each fault. (6 marks)
- 9 (a) State **one** reason for using wood fillers. (1 mark)
- (b) State **two** functions of wood stains. (2 marks)
- 10 (a) Construct a quadrilateral ABCD of side lengths $AB = 50\text{mm}$, $BC = 60\text{mm}$, $AD = 40\text{mm}$ and angle $BAD = 120^\circ$ and angle $ABC = 90^\circ$. (1 mark)
- (b) Reduce the quadrilateral in the ratio of 5:7. (2 marks)
- (c) Measure the length of side BG in millimeters. (1 mark)

SECTION B (60 marks)

Answer question 11 and any other three questions from this section.
Candidates are advised not to spend more than 25 minutes on question 11.

11 Figure 4 shows an object drawn in isometric projection.

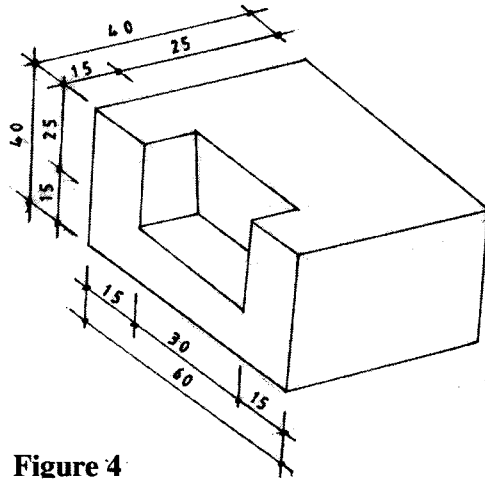
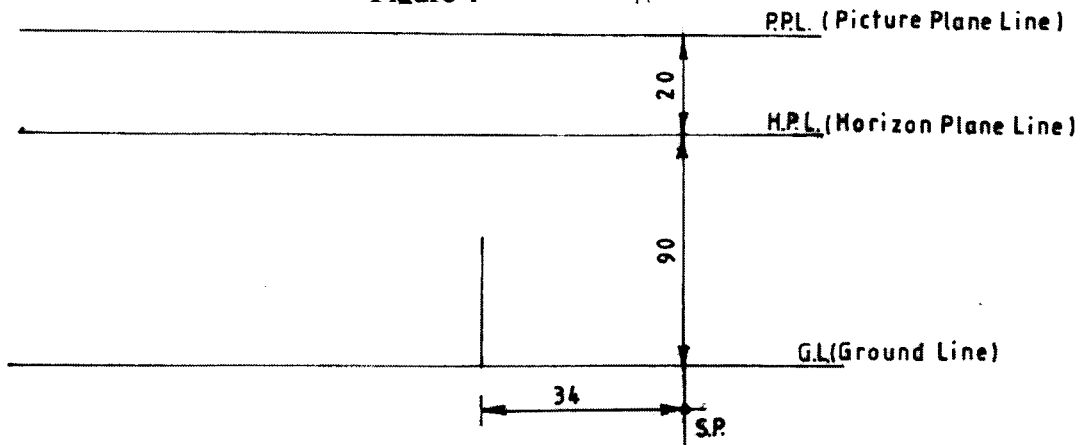


Figure 4

4.6



Using the outline given, draw:

- (a) the front elevation;
 - (b) the plan;
 - (c) one-point perspective view. (15 marks)
- 12
- (a) Give two reasons for providing a groove in a 9mm diameter dowel. (2 marks)
 - (b) Outline the procedure of making a dowel using a metal plate. (5 marks)
 - (c) With the aid of a labelled sketch, outline the procedure of planing the end grains of a work piece measuring 75mm wide. (8 marks)

- 13 (a) Outline the procedure of manufacturing chipboard from raw materials. (6 marks)
- (b) With the aid of sketches, describe each of the following timber defects:
- (i) cupping;
 - (ii) twisting;
 - (iii) diamonding.
- (9 marks)

14 Figure 5 shows the elevation of a kitchen cabinet door.

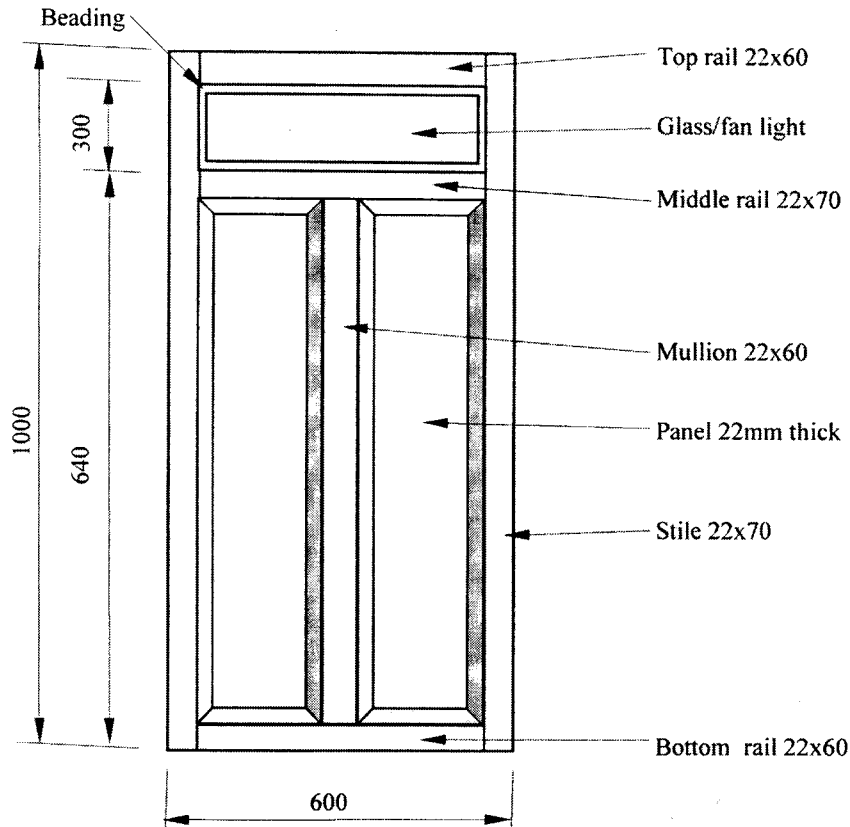


Figure 5

- a) Prepare a cutting list for the materials required for the construction of the door. (9 marks)
- (b) Estimate the cost of the door given the following price list:

Cost per 300mm	75 x 25 =	40/-
	150 x 25 =	66/-
Glue	1kg =	300/-
Glass	300 x 300 x 5 =	100/-
Beading	15 x 15 =	10/-

Allow 30% for labour and overheads. (6 marks)

- 15 (a) Outline the procedure of painting a new wood surface. (4½ marks)
- (b) Using labelled sketches, show **three** methods of fixing a table top to a rail. (10½ marks)