

## **FURNITURE MAKING**

### **EXAMINATION SCHEME**

There will be three papers, Papers 1, 2 and 3 all of which must be taken.

Papers 1 and 2 shall be a composite paper to be taken at one sitting.

Paper 1: will consist of forty multiple-choice objective questions all of which are to be answered in 45 minutes for 40 marks.

Paper 2: will consist of two sections, Sections A and B to be answered in 2 hours for 60 marks.

Section A: will consist of ten compulsory short-structured questions to be answered in 30 minutes for 20 marks.

Section B: will consist of three questions on design and drawing: out of which one will be compulsory. Each question shall require sketches and candidates will be required to answer the compulsory question for 30 marks and any other one for 10 marks in 1½ hours.

Paper 3: will be a practical test of 3 hour duration. It will consist of one practical question for 100 marks.

A list of materials for the test shall be made available to schools not less than two weeks before the paper is taken for material procurement and relevant preparations.

### **ALTERNATIVE TO PRACTICAL TEST**

The Council may consider testing candidates' ability in practical work as prescribed in the syllabus in the event that materials for the actual practical test cannot be acquired. For this alternative test there will be two sets of compulsory questions both of which must be answered in 2 hours for 100 marks.

## **SPECIMEN QUESTIONS ON FURNITURE MAKING**

### **OBJECTIVES**

1. The function of the cambium layer in a growing tree is to
  - A. form new wood.
  - B. protect the tree from injury.
  - C. convey food to all parts of the tree.
  - D. transport raw sap up to the leaves.
2. The decorative pattern on a wood surface is referred to as
  - A. knot.

- B. figure.
  - C. colour.
  - D. texture.
3. One of the disadvantages of kiln seasoning is that
- A. it has short drying period.
  - B. it kills any insect .
  - C. the moisture content can be reduced to bearest minimum.
  - D. it is costly to install and requires more attention.
4. Which of the following finishes is applied using a piece of cloth?
- A. Wax polish
  - B. Varnish
  - C. Cellulose lacquer
  - D. Paint
5. Which of the following manufactured boards has poor screw-holding power?
- A. Lamin board
  - B. Black board
  - C. Battern board
  - D. Chip board.
6. Which of the following adhesives is **suitable** for both internal and external use?
- A. Animal glue
  - B. Resin glue
  - C. Casein glue
  - D. polyvinyl acetate glue
7. Before inserting screws in softwood, it is necessary to drill
- A. shank diameter .
  - B. core diameter.
  - C. head diameter .
  - D. pilot hole.

PAPER 2  
SHORT STRUCTURED QUESTIONS

Sketch a cross-section of a log and indicate the following parts:

- i. bast;

- ii. sapwood;
- iii. heartwood;
- iv. medullary rays.

(2) Make neat exploded sketches of the following joints in the boxes provided below

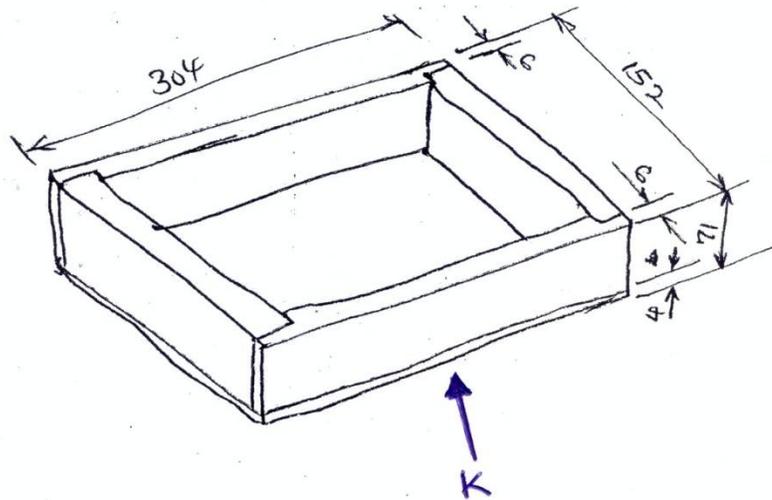
Common Mortise and Tenon joint	Tee-Bridle joint	Single dovetail joint

(3) Make neat sketches of the following timber defects in the spaces provided below:

Cupping	Bowing	Honey-combing	Star shake

(4) Name the **four** methods of applying wood preservatives in the spaces provided below:

SECTION B  
DRAWING AND DESIGN



The drawing above shows details of an index card tray, the bottom of which has been omitted.

1. (a) Sketch the tray without bottom.  
(b) Using scale 1:2, draw **each** of the following views in first angle orthographic projection:
  - (i) front elevation in the direction of arrow K;
  - (ii) side elevation;
  - (iii) plan.
2. (a) Name and sketch the joints used.  
(b) Sketch the joint named in 2(a).
3. Sketch a try square and label its part.

PAPER 3  
(PRACTICAL DRAWING)

(1) Make the model of a bookshelf to be hung on the wall using the timber which has been prepared to the following sizes (all dimensions are in millimeters)

2 pieces      160 x 120 x 20;

2 pieces      150 x 120 x 20;

1 piece        140 x 120 x 20.

(2) You may use any of the ordinary hand tool but the use of glue, glasspaper, files, rasps and scrapers is not allowed.

(3) Any dimensions which are not given on the drawing are left to your discretion.

(4) If you make any mistake, work to the drawing as near as possible. Additional materials will not be supplied.

(5) Print your name and index number clearly on each piece of wood and assemble your work before handing it over to the supervisor.

