CARPENTRY AND JOINERY

EXAMINATION SCHEME

There will be three papers, Papers 1, 2 and 3, all of which must be taken. Papers 1 and 2 will 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 1 hour 30 minutes for 60 marks.

Section A: will consist of five short-structured questions all of which are to be answered in 30 minutes for 20 marks.

Section B: will consist of three questions. Candidates will be required to answer any two in 1 hour for 40 marks.

Paper 3: will be a Practical test of 2 hours duration. It will consist of two questions out of which candidates will answer one 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 to be answered in 1½ hours for 100 marks.

SAMPLE QUESTIONS

(OBJECTIVE TEST)

1. The term first aid is defined as help given to
   A. the machine when it breaks down.
   B. a person who had an accident.
   C. another person operating a machine.
   D. carpenters to operate a machine.

2. The best way of ordering fittings is to
A. write to the manufacturer.
B. consult an illustrated catalogue.
C. look it up in a text book.
D. consult fellow carpenter.

3. Which of the following is a marking-out tool?
A. Bradawl
B. Hammer
C. Mortise gauge
D. Mortise chisel

4. The type of door which has plywood covering on both sides is the
A. hinged door.
B. ply door.
C. mortise door.
D. flush door.

5. Wood structure used as temporary support for arches during construction work is/are
A. formwork.
B. scaffold.
C. centres.
D. support logs.

6. Scaffolds are introduced during construction to
A. protect workmen from falling object.
B. prevent materials from being removed.
C. prevent vehicles from entering the site.
D. support material and workmen.

7. Which of the following machines is used for planing a piece of timber to a given size?
A. Circular saw  
B. Lathe  
C. Thicknesser  
D. Spindle moulder  

8. Which of the following is a type of window?  
A. Lining  
B. Ledge and braced  
C. Casement  
D. Rolling  

**PAPER 2**  
**SECTION A**  
(Short Structured Questions)  

1. Within the box below state the preventive equipment against each of the listed hazards  

<table>
<thead>
<tr>
<th>HAZARD</th>
<th>EQUIPMENT USED FOR PREVENTING THE HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire</td>
<td></td>
</tr>
<tr>
<td>Chemical splash</td>
<td></td>
</tr>
<tr>
<td>Hot items</td>
<td></td>
</tr>
<tr>
<td>Falling heavy object</td>
<td></td>
</tr>
<tr>
<td>Sharp object on floor</td>
<td></td>
</tr>
</tbody>
</table>

2. Mention one tool, used for each of the operations listed below:  
(i) levelling of wood surface  
(ii) making mortise in wood  
(iii) spraying  
(iv) wood cutting  

3. Provide the information needed for ordering these materials:
(i) plank;
(ii) nail;
(iii) screws.

PAPER 2
SECTION B
(ESSAY)
(40 marks)
1 hour

Answer two questions in all. All questions carry equal marks.

1. (a)  
   (i) What is meant by wood finishing?
   (ii) State reasons why finishes are applied to articles made of wood.

   (b) Explain the following terms with reference to wood finishing:
   (i) curing;
   (ii) tinting;
   (iii) bleaching;
   (iv) matt finishing;
   (v) dry dust free.

2. (a) State the stages of preparing a piece of timber to a specified width and thickness.

   (b) Sketch any two of the tools needed for the above operation.

3. (a) State two examples of the items listed below:
   (i) adhesive;
   (ii) ironmongery;
   (iii) roof covering materials;
   (iv) ceiling materials;
   (v) cladding materials.

   (b) State two functions of wood adhesives.

PAPER 3
(PRACTICAL)

1. The drawing below represents a battened door of six battens rebated together.

   Prepare the materials and assemble the battened door.
**INSTRUCTION:**

*All work is to be done using hand tools.*

**MATERIAL REQUIREMENT PER CANDIDATE**

<table>
<thead>
<tr>
<th>S/NO</th>
<th>QUANTITY</th>
<th>MATERIAL DESCRIPTION</th>
</tr>
</thead>
</table>

[Image of a diagram showing a section and a plan view, with measurements and notations for design and construction.]
<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>Battens 574 x 60 x 22mm</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>Ledges 310 x 75 x 22mm</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Braces 360 x 70 x 22mm</td>
</tr>
<tr>
<td>4</td>
<td>29</td>
<td>French wire nails 50mm</td>
</tr>
</tbody>
</table>