Leaving Certificate Examination

Technology
Ordinary Level

Sample Paper
Duration 2:00 hours

There are three Sections in this paper. Attempt all three Sections.

Section A: Core - Short-answer questions.
Section B: Core - Long-answer questions.
Section C: Options - Long-answer questions.

Section A - Core  (72 marks)

Instructions:

(a) Answer any nine questions in the spaces provided.
    All questions in Section A carry 8 marks.

(b) Draw all sketches in pencil.

(c) Hand up this booklet at the end of the examination.

(d) Write your examination number in the box provided
    and on all other pages used.

Examination Number:
Section A.  Answer any nine questions. All questions carry 8 marks.

1. The graphic shows an electric kettle.
   List three functional requirements of an electric kettle.
   
   1: _____________________________________________
       ______________________________________________
   
   2: _____________________________________________
       ______________________________________________
   
   3: _____________________________________________
       ______________________________________________

Based on the factors outlined above, suggest a suitable material for the casing A of the jigsaw shown.

Material: _______________________________________

2. Calculate the total resistance (R) in the following resistor combinations.

   ![Resistor Diagram]

   R = ________________                  R = ________________

3. State two factors that must be considered when choosing a material for the casing A of the jigsaw shown.

   1: _____________________________________________
       ______________________________________________
   
   2: _____________________________________________
       ______________________________________________

   Based on the factors outlined above, suggest a suitable material for the casing A of the jigsaw.

   Material: ________________________________
4. The graphics show the symbols for a SPST switch and a DPDT switch.

(i) What do SPST and DPDT stand for?
   SPST: ________________________________________________________________
   DPDT: ______________________________________________________________

(ii) Give one use for each of the switches.
   SPST:   ______________________________________________________________
   DPDT:  ______________________________________________________________

5. The graphic shows a racing bicycle.

   Name a suitable material for the manufacture of the frame of such a bicycle.
   Material: ___________________________________
   Give one property of the material which makes it suitable for the frame.
   Property: ___________________________________________________________________
   ___________________________________________________________________

6. Calculate the speed of gear B if the speed of the driving gear A is 100 rev/min.

   Calculation:
   Speed of gear B: ______________________
7. State two ways in which a Gantt chart can help a student to manage a school-based project.

1. ___________________________________________________________________________________
   ___________________________________________________________________________________

2. ___________________________________________________________________________________
   ___________________________________________________________________________________

8. Name two computer input devices and two computer output devices.

<table>
<thead>
<tr>
<th>Input device 1</th>
<th>Input device 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output device 1</td>
<td>Output device 2</td>
</tr>
</tbody>
</table>

9. The given symbol is shown on the side of a plastic drinks bottle.

   Give one piece of information about the plastic conveyed by the symbol.

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
10. The sketch shows a cordless drill.

Render the sketch in appropriate colours when the light is in the direction of the arrow shown.

The rendering should suggest the materials from which the drill is made.

11. The table shows the symbols for two electronic components. Name the components and state a suitable use for each.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Component</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Explain the abbreviations AC and DC when referring to electricity.

AC ______________________________________ DC ______________________________________

Give an example of where each is used.

AC: ______________________________________

DC: ______________________________________