Question 1. An Isometric View a Front Elevation and a Plan of a Playground Slide are given. In the space indicated:
a) project the End Elevation
b) draw the symbol of the projection used

18 marks
Question 2. The egg cup shown consists of a semi-ellipse mounted on a base. Lines PQ and RS are two normals at points P and R respectively on the semi-ellipse.

a. Using a major axis of 140mm and a minor axis of 90mm, construct the semi-ellipse on the given start lines.
b. Construct a normal to the ellipse at point R to complete the drawing.
   
   Note: Do not draw the egg.

14 marks

Question 3. The tool shown, called a centre-square, is used to find the centre of round bars.
Using the given start lines and centres, draw the centre-square showing clearly the constructions required to locate the centre of the arcs and the points of tangencies.

Note: B is a point of tangency.

14 marks
Question 4. Two orthographic views of a wooden kennel are given. On the given start lines and using the given dimensions, draw an isometric view of the kennel.

Notes:
Place corner X in the lowermost position.
Material thickness is 10mm throughout.

14 marks

Question 5. Health and safety signs can be separated into four categories namely prohibition, hazards, mandatory and safe condition. Colours and shapes distinguish between the different categories. Three different types of safety signs are given below.

In the space provided:

a) mark the right category and underline the correct message.
b) colour the signs according to the regulations set on ISO 7010.

14 marks

Mark the right category and colour the sign
- Prohibition
- Mandatory
- Hazard Warning
- Safe Condition

Underline the correct message.

a) Danger of falling.
b) Abseiling activity

Mark the right category and colour the sign
- Prohibition
- Mandatory
- Hazard Warning
- Safe Condition

Underline the correct message.

a) Wash your hands
b) Entry is prohibited

Mark the right category and colour the sign
- Prohibition
- Mandatory
- Hazard Warning
- Safe Condition

Underline the correct message.

a) Wear head protection
b) Only white helmets are allowed
Question 6. The table shows the years in which five Italian football teams won the annual cup competition known as Coppa Italia.
Complete the vertical bar graph to show the number of times that each club won the Coppa Italia trophy.
The first bar (that of Juventus) is already drawn.
Add colour and notation making use of the key.

<table>
<thead>
<tr>
<th>Football Clubs</th>
<th>JUVENTUS</th>
<th>ROMA</th>
<th>INTER</th>
<th>FIORENTINA</th>
<th>MILAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1938</td>
<td>1964</td>
<td>1939</td>
<td>1940</td>
<td>1967</td>
</tr>
<tr>
<td></td>
<td>1979</td>
<td>1986</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1983</td>
<td>1991</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1990</td>
<td>2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1995</td>
<td>2008</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12 marks

Question 7. A thin sheet metal candle extinguisher is shown on the right. The upper part of the extinguisher consists of a right cone cut at the base. Using the given front elevation and the incomplete plan, construct the development of the given cone, starting from the given apex O.

Note: a) place the seam on OP
     b) do not complete the plan
     c) some construction lines are already drawn

14 marks