This question paper consists of 9 pages.
INSTRUCTIONS AND INFORMATION

1. Answer all questions on the answer scripts provided.

2. Number questions exactly as they are numbered on the question paper.

3. Write neatly and legibly.

4. All drawings should be drawn on the grid paper provided.

SECTION A

Question 1

1 Four possible answers are given. Choose the alphabet of the correct answer. E.g. 1.6 D.

   1.1 One of the following materials is not natural (1)
       a. wood
       b. plastic
       c. leather
       d. clay

   1.2 When a force acts like this, it is called a (1)

       A. Tensile force
       B. Torsion force
       C. Compressive force.
       D. Shear force
1.3 What type of force applied on the picture below........... (1)

A. Tensile force
B. Torsion force
C. Compressive force.
D. Shear force

1.4 The convention used to illustrate the hidden details in the drawing is a ... (1)
   A. Centre line
   B. Dimension line
   C. Dash line
   D. Thin line

1.5 The importance of recycling packaging material is to ... (1)
   A. Safe guard human health and environment
   B. Increases air pollution
   C. Make environment dirty
   D. Increase unemployment

Question 2

2.1 Which of the following statements are TRUE or FALSE? Just write true or false.
   E.g. 2.1.6 False

2.1.1 Plastic bags generates less air pollution when produced (1)
2.1.2 Getting rid of plastic bags can make a positive environmental contribution. (1)
2.1.3 Plastic protects goods from dirt and rain. (1)
2.1.4 Compost is made of natural material and it is harmful to the environment (1)
2.1.5 Papers can be processed by soaking and moulding. (1)
### Question 3

3.1 Match the description in column A with its term in column B. Just write the letter of the correct answer. E.g. 3.1.6.F

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN C</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1 Materials from oil or coal that are found under ground</td>
<td>A. Waste separation.</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Using synthetic materials over and over again</td>
<td>B. Rafter</td>
<td></td>
</tr>
<tr>
<td>3.1.3 Keeping waste of synthetic materials separate from waste of natural materials</td>
<td>C. Reusing materials.</td>
<td></td>
</tr>
<tr>
<td>3.1.4 Processed materials that are found around us.</td>
<td>D. Natural materials</td>
<td></td>
</tr>
<tr>
<td>3.1.5 The two sloping members on the sides of horizontal beam</td>
<td>E. Synthetic materials.</td>
<td></td>
</tr>
</tbody>
</table>
SECTION B

Question 4

4.1  Give three advantages of Synthetic materials. (3)

4.2 Give one disadvantage of Synthetic materials. (1)

4.3 Explain the differences between biodegradable and non-biodegradable materials (4)

4.4 List three waste materials that are normally found around school yard. (3)

4.5 Where at school yard should we throw our waste? (1)

Question 5

5.1 Look at the picture below and explain by example the importance of waste separation. (2)

Figure shows the weekly waste from a household that separates waste
5.2 What will happen to the following materials when it gets wet? (3)
   a) Paper
   b) Plastic
   c) Leather

5.3 Look at the picture below and answer the questions that follows:

**Figure shows waste materials in a river or stream**

5.3.1 Give four negative effects that can happen when plastic bags end up in a river or stream? (4)
5.3.2 Explain what can happen if an animal eats a plastic bag. (2)
5.4 Look at the picture below and answer the questions that follow:

![Picture of burning garbage]

**Figure showing burned garbage**

5.4.1 Give three facts of that may happen to people and animals who breathe in the smoke and gases that comes from burning plastic? (3)

5.4.2 Where do the smoke and gases go after the fire has burnt? (2)

5.4.3 What stays behind on the ground after the plastic was burnt? (2)
SECTION C

Question 6

6.1 Look at the labelled parts of the box below and answer the questions that follow:

![Diagram of a box with labeled parts: tab, face, edge, corner.]

**Figure shows the different parts of a box**

6.1.1 How many faces does the box have? (1)
6.1.2 How many edges does the box have? (1)
6.1.3 How many corners does the box have? (1)

6.2 Look at the development of the box and use given measurements to re-draw it on the grids provided. 1 block = 5 mm. (12)