The diagram below shows the vertical section of a tooth.

1. (a) Name the parts labeled A, B, C.  
   A_______________  B_______________  C_______________  
   3 marks

(b)  
(i) What is the function of the part labeled C?  
   ____________________________________________________________________  
   2 mark

(ii) How is the structure of this tooth suited for its function?  
   ____________________________________________________________________  
   ____________________________________________________________________  
   2 marks

(iii) Study the diagram below and then write the dental formula of the organism.
(c)  

(i) Define the term balanced diet.  

1 mark

(ii) Identify the nutrients in a ham and cheese sandwich.  

3 marks

(iii) Name the enzymes that will help to breakdown the food nutrients stated in (ii) above and state where the enzyme can be found.  

3 marks

(d) A group of students in Form 3C was given the chemicals listed in the table below, to carry out food tests. Complete the table by putting in the food nutrient and the possible observation.  

4 marks

<table>
<thead>
<tr>
<th>Chemicals for Testing</th>
<th>Food Nutrient Tested for</th>
<th>Observation(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iodine Solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper sulphate solution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. The table below shows the foods consumed and their consumers in a terrestrial environment.

<table>
<thead>
<tr>
<th>Food Consumed</th>
<th>Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass</td>
<td>Cows, Grasshopper</td>
</tr>
<tr>
<td>Lettuce</td>
<td>Slugs, Caterpillars</td>
</tr>
<tr>
<td>Cabbage</td>
<td>Humans, Slugs</td>
</tr>
<tr>
<td>Cows</td>
<td>Humans</td>
</tr>
<tr>
<td>Grasshopper</td>
<td>Frogs</td>
</tr>
<tr>
<td>Slugs, Caterpillars, frogs</td>
<td>Small birds</td>
</tr>
<tr>
<td>Small birds</td>
<td>Large birds</td>
</tr>
<tr>
<td>Large birds</td>
<td>Human</td>
</tr>
</tbody>
</table>

(a) (i) Use the information in the table to construct a food web in the space below.

(ii) From the food web drawn, write two food chains.

________________________________________________________________________
________________________________________________________________________

(iii) Suggest what would happen to the food web if all the small birds were killed.

________________________________________________________________________
________________________________________________________________________

(b) Students in a class are asked to carry out the following experiment to investigate photosynthesis:
- Attach a strip of foil to the upper and lower surfaces of a leaf of a potted plant, as shown in the diagram below.
- Put the plant in a sunny place.
- After a few days detach the leaf and test it for starch.
(i) List the steps involved in testing the leaf for the presence of starch.

____________________________________________________________

____________________________________________________________

____________________________________________________________

____________________________________________________________

(ii) What do you expect to see (observe)

a. on the white areas of the leaf

____________________________________________________________

b. on the green areas of the leaf

____________________________________________________________

(iii) Explain the observation made at a and b above.

____________________________________________________________

____________________________________________________________

____________________________________________________________