

**Student Name:** \_\_\_\_\_

**Teacher:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Assessment Objective	Pass	Merit	Distinction
<b>AO1</b> <i>Use CAD tools to produce a range of diagrams and images</i>	Candidates will produce three CAD drawings, showing a limited use of CAD tools. These drawings may not be accurate.	Candidates will produce three CAD drawings, showing use of a wide range of CAD tools. Most of the drawings will be accurate.	Candidates will produce three complex CAD drawings, showing use of a wide range of CAD tools. All drawings will be accurate.
<b>AO1 NOTES</b>	<b>AO1: P M D</b>		
<b>AO2</b> <i>Use CAD to produce a card package that could be used by a computer controlled card cutting machine</i>	Candidates will produce a simple net with some provision for folding, gluing and fastening, but these may not be accurate. Candidates use relevant text and third party image(s) for one surface.	Candidates will produce an accurate net showing cut and score lines and with good provision for gluing and fastening. Candidates use relevant text and customised images for one surface.	Candidates will produce an accurate net showing cut and score lines and with good provision for gluing and fastening. Candidates use relevant text and produce their own images for one surface.
<b>AO2 NOTES</b>	<b>AO2: P M D</b>		
<b>AO3</b> <i>Use CAD to produce diagrams that contain all the information needed for the manufacture of components and/or products</i>	Candidates will produce two working drawings. These include the basic information from which simple items can be manufactured.	Candidates will produce two working drawings. These include most of the information from which complex items can be manufactured.	Candidates will produce two accurate working drawings. These include all of the information from which complex items can be manufactured.
<b>AO3 NOTES</b>	<b>AO3: P M D</b>		
<b>AO4</b> <i>Use CAD as a 3 dimensional modelling tool</i>	Candidates will produce an example of basic shapes simply rendered.	Candidates will produce an example of a more complex object represented, rendered and viewed from 2 positions.	Candidates will produce an example of a complex object represented, skilfully rendered and viewed from a variety of positions.
<b>AO4 NOTES</b>	<b>AO4: P M D</b>		
<b>AO5</b> <i>Develop the design for a product or component to be manufactured using a CAM machine</i>	Candidates will develop a basic design for a simple shape with brief notes and instructions on how the item is to be manufactured using a CAM machine.	Candidates will develop a clear design for a more complex shape with detailed notes and instructions on how the item is to be manufactured using a CAM machine.	Candidates will develop a clear and accurate design for a complex shape with comprehensive notes and instructions on how the item is to be manufactured using a CAM machine.
<b>AO5 NOTES</b>	<b>AO5: P M D</b>		

**Overall grade awarded for this unit:**    **PASS**    **MERIT**    **DISTINCTION**    (Circle ONE grade)    **Signature:** \_\_\_\_\_

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Assessment Objective	Pass	Merit	Distinction
<b>AO6</b> <i>Explain the stages of manufacturing from CAD drawing to finished component using CAM</i>	Candidates will briefly describe the basic stages of setting up and using a CAM machine. The report must include: <ul style="list-style-type: none"> <li>• how data is transferred to the machine</li> <li>• how the machine is operated</li> <li>• safety features and requirements</li> </ul>	Candidates will provide a detailed description of the main stages of setting up and using a CAM machine. The report must include: <ul style="list-style-type: none"> <li>• how data is transferred to the machine</li> <li>• details of the machine used</li> <li>• how the machine is set up</li> <li>• how the material is fixed into the machine</li> <li>• how the machine is operated</li> <li>• safety features and requirements</li> </ul>	Candidates will provide a comprehensive report on all the stages of setting up and using a CAM machine. The report must include: <ul style="list-style-type: none"> <li>• information on what the part is and what it is to be used for</li> <li>• how data is transferred to the machine</li> <li>• details of the machine used</li> <li>• how the machine is set up</li> <li>• how the material is fixed into the machine</li> <li>• how the machine is operated</li> <li>• safety features and requirements</li> <li>• alternative methods of production</li> </ul>
<b>AO6 NOTES</b>	<b>AO6: P M D</b>		
<b>AO7</b> <i>Explain how components are commercially produced in quantity using CAM machines</i>	Candidates will provide a brief and limited account of how CAM machines are used in industry.	Candidates will provide a detailed and clear account of how CAM machines are used in industry.	Candidates will provide a comprehensive and full account of how CAM machines are used in industry.
<b>AO7 NOTES</b>	<b>AO7: P M D</b>		

Overall grade awarded for this unit: **PASS** **MERIT** **DISTINCTION** (Circle ONE grade) **Signature:** \_\_\_\_\_