

Question Number	Answer
*7(c)(ii)	<p>Answers will be credited according to candidate's deployment of knowledge and understanding of the material in relation to the qualities and skills outlined in the generic mark scheme.</p> <p>The indicative content below is not prescriptive, and candidates are not required to include all the material indicated as relevant. Additional content included in the response must be scientific and relevant.</p> <p>Advantages</p> <ul style="list-style-type: none"> • indication of sustainability in the context of biofuel production e.g. more plants can be grown, renewable • available for future generations • consideration of carbon neutral or removal of carbon dioxide from atmosphere (by photosynthesis) as plant is growing • consideration of lower carbon emissions than fossil fuels • linkage to greenhouse effect / global warming • some biofuels require limited resources • hemp produces the least carbon dioxide emissions of all fuels • hemp and sugar beet require the least water • hemp and soybean require fewer fertilisers • hemp requires fewer fertilisers • hemp requires fewest resources • consideration of reduced water requirements for producing biofuels than food production • hemp requires fewest resources so lowest production costs • bioethanols require fewer resources so lower production costs <p>Disadvantages</p> <ul style="list-style-type: none"> • rapeseed and soybean production require high levels of water • rapeseed and sugar beet production require high levels of fertilisers • rapeseed, soybean and sugar beet production require high levels of pesticides • rapeseed requires highest level of resources • consideration of effect of fertilisers on ecosystem