

Question Number	Indicative content	Mark
1	Knowledge 2, Application 2, Analysis 4, Evaluation 4 Marks for application and analysis – include up to 6 marks for quantitative skills Quantitative skills assessed: QS2: calculate, use and understand percentages and percentage changes Indicative content (quantitative skills) • Dairy free sweets net gain = £320,000 • Lollipops net gain = £305,000 • A decision tree is a mathematical model which can be used by a business to help make decisions. Decision trees use estimates and probabilities to calculate the expected value and net gain of each option/decision • Constructing the decision tree requires the owners of Maxons to consider carefully the costs and probabilities of sales of both options and therefore provides a logical approach to decision making • The decision tree allows Maxons to calculate the net gain which can help them decide which option is more financially attractive, for example, the production of dairy free sweets achieves a net gain of £320,000, £15,000 higher than lollipops • The use of probabilities allows Maxons to consider the risks of both options. For example, lollipops have a higher chance of success and there is a 40% risk that dairy free sweets will result in a loss of £200,000 Potential counter-balance • All the data used within the decision tree are estimates and could therefore be unreliable. For example, if dairy free sweets are successful then this may result in sales lower than the estimated £1,500,000 which would therefore lower the net gain of this option • Targeting the dairy free market could be considered diversification as they are developing a new product for a new market therefore the 60% chance of success may be unrealistic • Decision trees are a quantitative decision-making technique which ignores qualitative factors. This may lead to the wrong option been chosen • The probabilities and sales estimations may be prone to bias. For example, the estimated £1,500,000 sales from dairy free sweets may be inflated due to the growth in this market Possible judgement • Decision trees may be of value to Maxons as it forces them to consider logically the costs, risks and estimated sales of both options. By calculating the net gain of each option, Maxons can make a more informed decision about which option they should choose • Decision trees may be of little value to Maxons as they are based purely on estimates and ignore qualitative factors. For example, Maxons may choose to go with dairy free sweets due to the higher net gain, yet this is a market they are unfamiliar with	(12)