Many airlines are now investing in aircraft that are more fuel efficient and use low-carbon jet fuel in a bid to reach net-zero carbon emissions by 2050.

(d) Using a supply and demand diagram, analyse the likely impact on the market for air travel of improvements in aircraft technology.

(6)

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(h) Assess the likely impact from the growth of the travel and tourism sector on aggregate demand (AD) in the UK.

(12)

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QUESTION 2 BEGINS ON THE NEXT PAGE

Turn over

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–2	Isolated elements of knowledge and understanding, using little or no relevant evidence. Arguments and chains of reasoning may be attempted. Limited attempt to address the question.
Level 2	3–5	Elements of knowledge and understanding, using limited relevant evidence. Arguments and chains of reasoning are developed. Judgements may be attempted.
Level 3	6–8	Accurate knowledge and understanding, supported throughout by use of relevant evidence which is well chosen. Arguments are developed, using logical, coherent chains of reasoning. A balanced awareness of competing arguments.

Demonstrating application (AO2) in responses
Where questions specifically stipulate the use of data or information provided in a stimulus, students:

- must directly reference, interpret or analyse the information provided in the stimulus
- in addition, may select examples from their own knowledge but these must be relevant and directly connected to the context/issues set out in the stimulus.

Where questions do not specifically stipulate the use of data or information provided in a stimulus, students:

- must select relevant examples from their own knowledge, these must be directly connected to the context/issues set out in the question, and
- may directly reference, interpret or analyse the information provided in any relevant stimulas.

Question Number	Assess the likely impact from the growth of the travel and tourism sector on aggregate demand (AD) in the UK. **Indicative content**	Mark
1(h)	**Knowledge/Understanding 2, Application 2, Analysis 4, Evaluation 4** • AD = C+I+G+ (X-M) • The growth of the travel and tourism sector can lead to increased consumer spending (C) on leisure activities, accommodation, dining and entertainment • This rise in consumer expenditure will increase AD, indicating an increase in overall demand as it is set to reach 10.1% of GDP by 2032 and create 700,000 new jobs • As the travel and tourism sector expands, there is a likelihood of increased investment (I) in infrastructure, such as hotels, resorts and transportation resulting in an increase in AD • The growth of the travel and tourism sector can attract international tourists, leading to a rise in foreign exchange earnings from tourism-related activities • £14.2bn was spent in London alone in 2022 with other major UK cities attracting many international visitors • This results in an increase in net exports, positively impacting the trade balance and an increase in AD • In the short term, the positive impact on aggregate demand can lead to economic growth, increased output and potentially lower unemployment, as firms within the travel and tourism sector expand their operations and hire more employees to cater for the rising demand • However, a significant portion of spending in the travel and tourism sector often goes towards imported goods and services, including foreign airlines, accommodation and imported food products • This leakage can reduce the overall multiplier effect on the UK economy • The impact on AD will depend on whether the increased spending on travel and tourism is from savings or from reduced spending on other big ticket items such as cars and home improvements • The travel and tourism sector is particularly susceptible to external shocks, such as natural disasters or global health crises resulting a decline is AD	**(12)**

Question Number	Evaluate the extent to which the use of technology might increase productivity for a firm. **Indicative content**	Mark
3	**Knowledge/understanding 4, Application 4, Analysis 6, Evaluation 6** • Productivity measures how efficiently resources are used to make goods and services • Technology can automate routine and repetitive tasks that were previously time-consuming for employees. This allows human resources to be redirected towards more complex and value-added activities, improving overall efficiency and productivity • For example, robots in manufacturing can assemble products with precision and speed, reducing the need for manual labour and improving overall efficiency • Greater efficiency could be achieved using ChatGPT which has been found to help coders work at twice their previous speed, halve the time taken to complete certain writing tasks and make call centres 14% more productive • AI technology can improve supply chain processes from demand forecasting to stock management and logistics. This results in reduced costs, minimised wastage and improved overall efficiency • However, the successful integration of technology requires significant investments in terms of capital, training and maintenance which could increase average costs in the short term • There could be challenges related to job displacement with as many as 300 million full-time workers losing jobs and being replaced by AI technology • When introducing new technologies, there is a learning curve for employees to understand and adapt to the change which could result in a decrease in productivity due to errors, inefficiencies and reduced output • There might be a shortage of people with the necessary expertise needed to manage new technology potentially hindering efficient operations • There are alternative ways to increase productivity for firms such as improving human capital and the quality of management • It will depend on the type and nature of the industry as to whether technology can improve productivity for a firm	**(20)**