



**GCE A LEVEL**

**1510U40-1**

**THURSDAY, 9 JUNE 2022 – MORNING**

**BUSINESS – A2 unit 4**

**Business in a Changing World**

**2 hours 15 minutes plus your additional time allowance**

**ADDITIONAL MATERIALS**

**In addition to this examination paper, you will need:  
A WJEC pink 16-page answer booklet.**

**INSTRUCTIONS TO CANDIDATES**

**Use black ink, black ball-point pen or your usual method.**

**Answer ALL questions in Section A.**

**Answer ONE question from Section B.**

**You are advised to spend no more than:**

- **80 minutes on Section A**
- **55 minutes on Section B**

**Write your answers in the separate answer booklet provided.**

**Write the question number in the left-hand margin at the start of each answer.**

**Leave at least two line spaces between each answer.**

**(Turn over)**

**INFORMATION FOR CANDIDATES**

**The number of marks is given in brackets at the end of each question or part-question.**

**You are reminded of the need for good English and orderly, clear presentation in your answers.**

**SECTION A**

**Answer ALL the questions in this section.**

- 01 Read the case study below and answer the questions that follow.**

**THE CAR INDUSTRY**

**The car industry is dominated by large multinational companies. The biggest markets include China, US, Japan, India, Germany and the UK, with global car sales above 96 000 000 per year.**

**The car industry provides employment for over 800 000 people in the UK. A number of multinational car manufacturers operate within the UK including Ford, Toyota and Vauxhall. In addition, there are another 2500 businesses, most of which are SMEs, that are reliant on the car industry. Car manufacturers produce three types of engine, diesel, petrol and alternative fuels. In total, the car industry accounts for 4% GDP (£60.5 billion) and accounts for approximately 10% of the UK trade in goods.**

**(Turn over)**

**RISK AND UNCERTAINTY IN THE CAR INDUSTRY**

**20** Car manufacturers in the UK are facing uncertainty  
in relation to economic factors. For example,  
the UK's decision to leave the European Union  
created huge uncertainty over tariff costs and  
the exchange rate for the pound. In an uncertain  
climate experts predict that consumers avoid  
**25** spending on high priced, luxury goods, which  
in turn, could impact on interest rates, inflation  
and employment levels. A number of car  
manufacturers have threatened to take whatever  
action is needed to succeed, including moving  
**30** production from the UK to other countries.

The car industry is also facing a time of  
uncertainty on a global scale. Changing political  
and consumer attitudes towards protecting the  
environment from harmful carbon emissions  
**35** requires investment from car manufacturers to  
reduce emissions produced from driving their  
cars. Another risk factor is the level of competition  
in the global market, with further opportunities for  
new entrants due to new innovative ideas in the  
**40** design of cars.

(Turn over)

## **ENVIRONMENTAL FACTORS AFFECTING THE CAR INDUSTRY**

The sale of petrol and diesel engine cars is falling in established markets including Western Europe,  
45 Japan and North America. In the UK alone, car sales declined from 2 367 147 in 2018 to 2 311 140 in 2019, a fall of 2.37%. FIGURE 1 opposite shows the total number of new car sales in 2018 and 2019 for five main car manufacturers that sell in the UK.

50 One reason for the fall in sales of new cars in the UK is related to environmental factors. From April 2018, the UK Government changed legislation, with higher levels of road tax for diesel cars. In addition, the public image of diesel engines  
55 has been damaged. For example, Volkswagen's emissions scandal only further damaged public perception of diesel vehicles. In September 2015, the scandal was announced with Volkswagen admitting over 11 million cars worldwide were  
60 fitted with high-tech software to cheat emissions tests, letting cars produce up to 40 times more pollution than allowed by law. This scandal cost the company £880 million in fines as well as damaging its reputation. Added to this are fears in  
65 relation to carbon emissions and the impact diesel engines have on the environment.

(Turn over)

New registrations of diesel vehicles are rapidly declining, with the market share of diesel vehicles in 2020 accounting for 16% of all vehicle sales, falling from 25% in 2019 and 31% in 2018.

## **ENVIRONMENTAL STRATEGY**

Waste minimisation has been a key priority for car manufacturers for many years. When it comes to recyclable materials, car manufacturers have started using aluminium in the production process because it is so lightweight and flexible. It also reduces the fuel consumption for drivers and it is easily recyclable. In addition, car manufacturers are minimising the amount of waste in the production of cars by using production processes including lean production and just-in-time, which also reduces costs.

Car manufacturers are also investing large amounts of capital into developing engines that reduce harm to the environment. For example, the ECOnetic technology which Ford has developed not only reduces fuel consumption but, combined with the Auto-Start-Stop technology which automatically shuts down the engine when a car is stationary, also reduces carbon emissions and it can save money for consumers.

(Turn over)

However, emissions need to fall even further. As a result, countries including China, India, France and the UK are planning to stop the sale of petrol and diesel powered cars. Businesses in the car industry are investing huge amounts of capital into alternative sources of power, including ultra-low emission cars such as hybrid (petrol or diesel engine with an electric motor to fuel the car) and pure electric vehicles. For example, Ford currently offers customers a wide choice of electric vehicles and the company is increasing its planned investment in electric vehicles to £8.5 billion.

#### 105 THE ELECTRIC VEHICLE MARKET (FIG. 2 opposite)

The latest global sales of electric vehicles show a continuing increase, with sales reaching 2.3 million in 2020, compared to sales of 0.58 million in 2015 and 1.26 million in 2017. The UK saw sales rising 22% in 2020 compared to 2019. The Government is supporting this growth with subsidies, grants and tax rebates available to customers to help reduce the high cost of owning an electric vehicle. However, poor infrastructure, limited product range and the short lifespan of the electric vehicle battery are major restraints restricting the sale of electric vehicles.

(Turn over)

China is the biggest market for electric cars, with nearly 1.2 million being sold in 2019, compared to just under 300 000 sold in the UK. Electric car sales in China are increasing every month. Ford is seeking to take advantage of this market growth and will launch 15 electric vehicle models in China by 2025. However, electric vehicles account for just 4.2% of the total 26.3 million cars sold annually in China. The market for diesel and petrol car sales is very competitive in China, with Chinese car manufacturers accounting for 43.87% of all sales in 2018. Volkswagen is the number one European car manufacturer selling cars in China, with Ford ranking 21st of the car manufacturers in relation to the number of cars sold. However, the market for electric vehicles is forecast to grow to 49% of all car sales by 2025. The electric vehicle market is also extremely competitive, with Chinese brands accounting for 96% of all electric vehicles built and sold in China. Tesla, Nissan Leaf and Denza were the only three non-Chinese electric vehicle brands for sale in China in 2018.

**140 AUTOMATION IN THE CAR INDUSTRY**

**For many years car manufacturers have been investing heavily into automating the production process, including the use of robotics. For example, Toyota invested £240 million into its UK**  
**145 factories helping the production process to be more efficient and car manufacturers to minimise waste.**

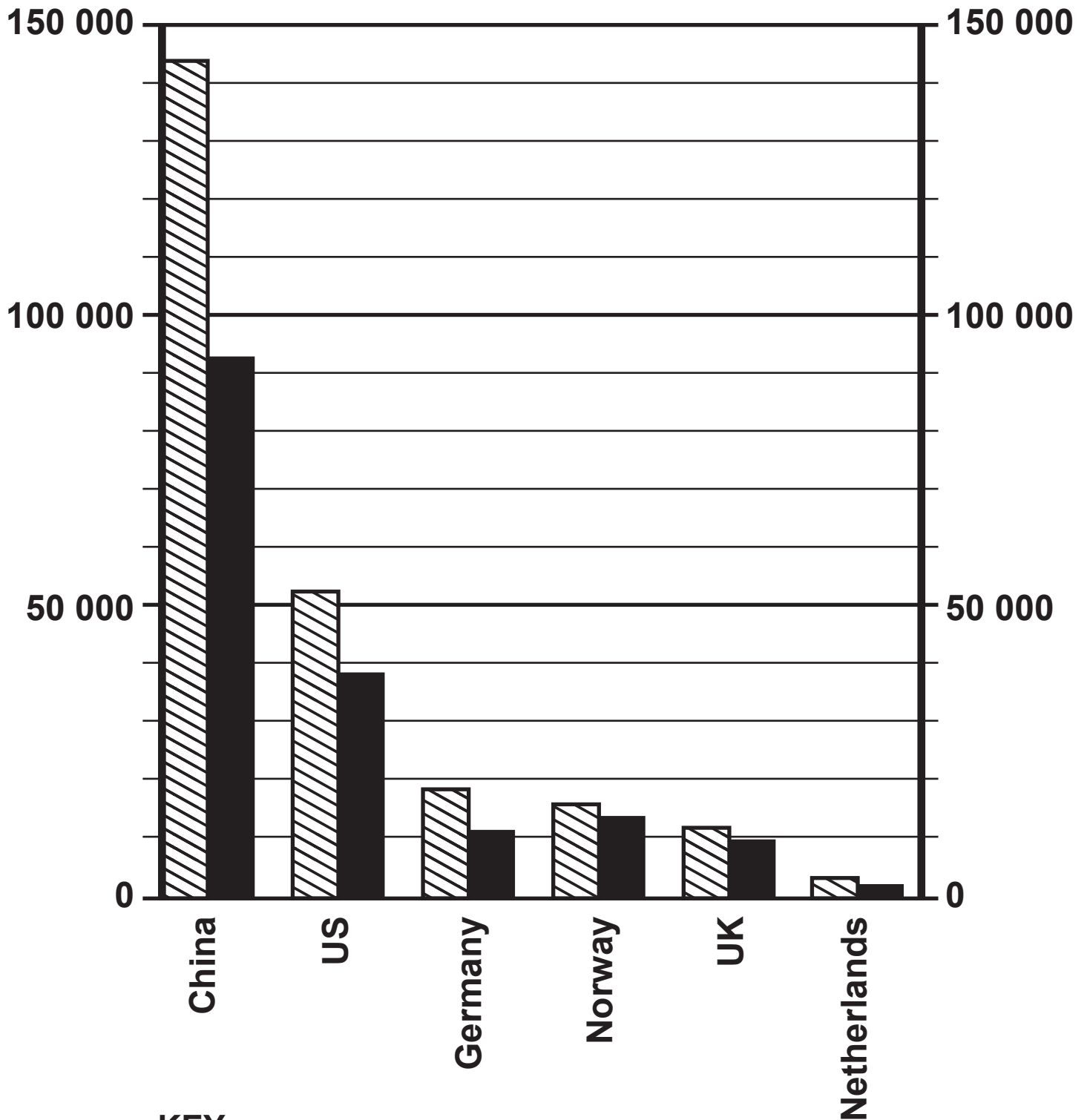
**Car manufacturers are also investing in research and development to make use of**  
**150 technological developments to add new features to cars, improving the product range on offer to customers. Technological features include satellite navigation, hands-free Bluetooth, reversing cameras, automatic parking, driver**  
**155 assist features such as traffic alerts and lane departure warnings and WIFI hotspots to give drivers and passengers access to free Internet connection.**

**Manufacturers are also now producing cars that  
160 do not require a driver. For example, Tesla's 2015  
models are already 90% self-drivable according  
to founder Elon Musk and the company continues  
to spend large sums of capital on research and  
development. Large manufacturers such as Ford  
165 and Volkswagen are concerned that technology  
companies including Google and Apple, with  
advanced levels of knowledge and innovation  
within the technological industry, may be able  
to enter the car industry, leading to even more  
170 competition.**

**FIGURE 1: CAR SALES FOR FIVE MAIN CAR MANUFACTURERS IN THE UK – 2019 COMPARED WITH 2018**

<b>Car Manufacturer</b>	<b>Sales in 2018</b>	<b>Sales in 2019</b>	<b>% Change in Sales</b>
<b>Ford</b>	<b>254 082</b>	<b>236 137</b>	<b>-7.06</b>
<b>Volkswagen</b>	<b>203 133</b>	<b>200 771</b>	<b>-1.16</b>
<b>Vauxhall</b>	<b>177 048</b>	<b>159 830</b>	<b>-9.85</b>
<b>Toyota</b>	<b>101 922</b>	<b>105 192</b>	<b>3.21</b>
<b>Nissan</b>	<b>102 637</b>	<b>92 372</b>	<b>-10.00</b>

**FIGURE 2: SALE OF ELECTRIC VEHICLES  
IN THE FIRST THREE MONTHS OF 2018  
COMPARED WITH 2017**



**KEY:**



- 01 (a) Analyse why risk management is important to car manufacturers. [6 marks]**
- 01 (b) Explain how car manufacturers are responding to environmental issues. [6 marks]**
- 01 (c) Using both qualitative and quantitative data, evaluate Ford's plan to launch 15 models of electric vehicles in China by 2025. [12 marks]**
- 01 (d) "Multinational car manufacturers only have a positive impact on the UK." To what extent do you agree with this statement? [12 marks]**
- 01 (e) Consider the potential impact of changing economic, legal and technological factors on car manufacturers and their customers. [14 marks]**

## **SECTION B**

**Answer ONE question from this section.**

### **MANAGING CHANGE**

**02 (a) Describe how Lewin's three step process could be used to help remove resistance to change when two competing businesses merge. [10 marks]**

**02 (b) "Businesses that do not manage change effectively are likely to fail." Discuss. [20 marks]**

### **PRIVATE VS PUBLIC SECTORS**

**03 (a) Describe how the aims of the NHS as a public sector organisation differ from the aims of BUPA, a private sector healthcare business. [10 marks]**

**03 (b) "Private sector businesses are able to provide consumers with everything they require. There is very little need for government involvement in business". To what extent do you agree with this statement? [20 marks]**

**(Turn over)**

**BUSINESS FUNCTIONS**

**04 (a) Describe how McGregor's theory X and theory Y could be applied by the management of a business that designs and manufactures fashionable clothing. [10 marks]**

**04 (b) "Investing money into advertising and promotion is often a waste of resources, whereas money invested in the workforce is always likely to be more beneficial to a business." Discuss.**

**[20 marks]**

**END OF PAPER**