Diploma Programme
Programme du diplôme
Programa del Diploma

Economics
Higher level
Paper 3

11 November 2024

Zone A morning | **Zone B** morning | **Zone C** morning

Candidate session number

1 hour 45 minutes

Instructions to candidates

- Write your session number in the boxes above.
- You are permitted access to a calculator for this paper.
- Do not open this examination paper until instructed to do so.
- Answer all the questions.
- Answers must be written within the answer boxes provided.
- Unless otherwise stated in the question, all numerical answers must be given exactly or correct to two decimal places.
- You must show all your working.
- Use fully labelled diagrams where appropriate.
- The maximum mark for this examination paper is **[60 marks]**.

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will not be marked.

Answer **all** the questions. Answers must be written within the answer boxes provided.

1. (a) (i) Define the term *current account balance*. [2]

Egypt is a country located in the northeastern corner of Africa. **Table 1** presents data on Egypt's current account balance for 2021 and 2022.

Table 1

	2021 (US$ billion)	2022 (US$ billion)
Trade in goods balance	−42.06	−43.39
Exports revenues	28.68	43.91
Import expenditures	70.74	87.30
Services balance	4.12	11.16
Revenues	15.0	26.93
Expenditures	10.88	15.77
Net (primary) income	−12.4	−15.76
Net current transfers	30.9	31.45

(ii) Calculate Egypt's current account balance for 2021 **and** for 2022. [2]

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Turn over

(Question 1 continued)

Figure 1 illustrates the current account balance of Egypt expressed as a percentage of gross domestic product (GDP) between 2012 and 2022.

Figure 1: Current account balance (% of GDP)
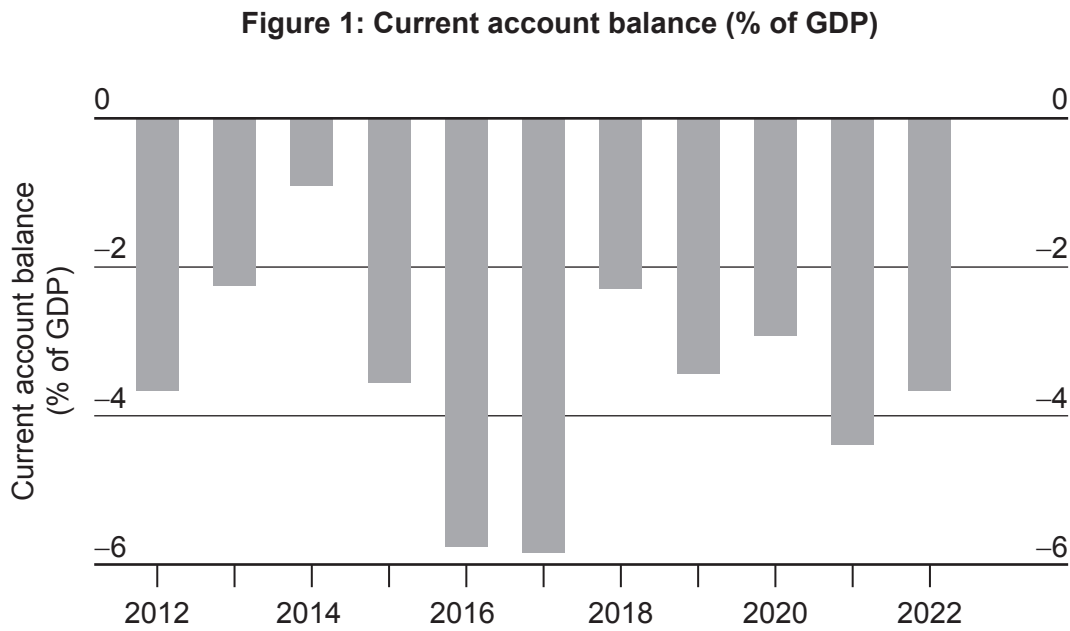
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(Question 1 continued)

    (iii)   Using an exchange rate diagram, explain the expected impact of Egypt's current account balance between 2012 and 2022, shown in **Figure 1**, on the value of the Egyptian pound (EGP). [4]

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(Question 1 continued)

Figure 2 illustrates the price of the US dollar (US$) in terms of Egyptian pounds (EGP) from October 2022 to March 2023.

Figure 2
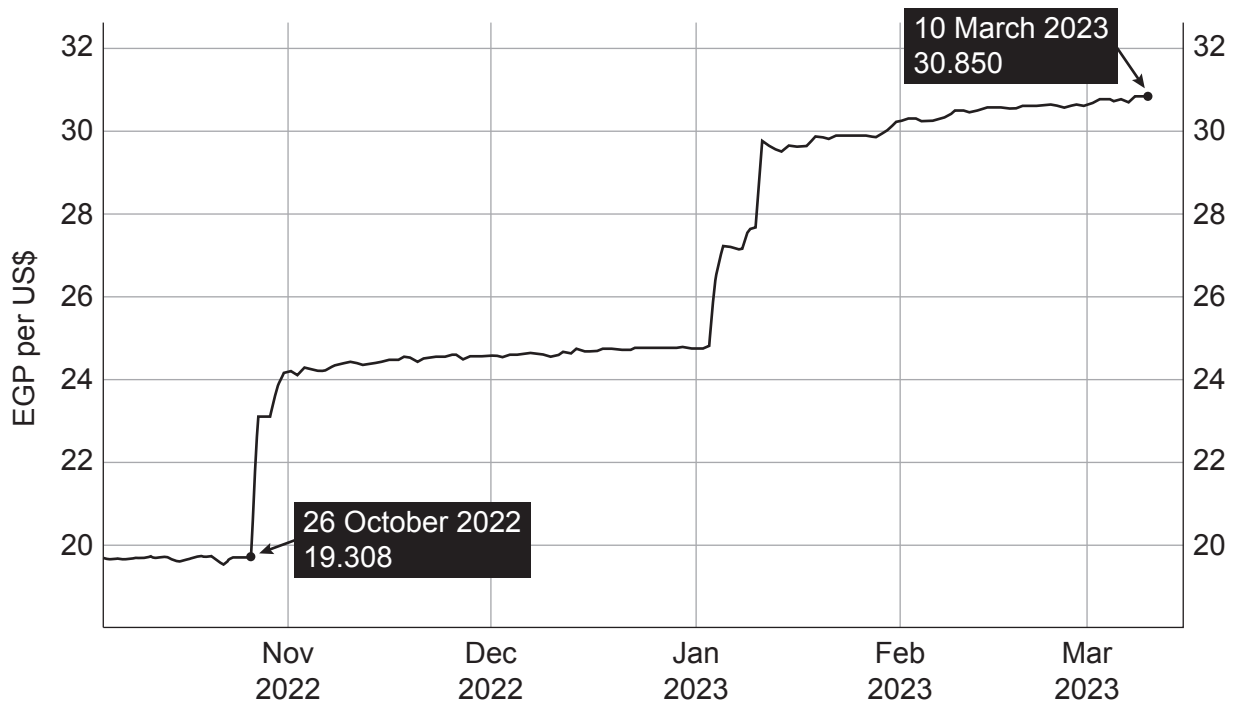
(iv)   Describe the information regarding the Egyptian pound shown in **Figure 2**.   [1]

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On 26 October 2022, the Egyptian pound was trading at EGP19.308 to US$1. On 10 March 2023, the Egyptian pound was trading at EGP30.850 to US$1. The nightly rate for a double room at Cairo's* Hilton Heliopolis hotel is 5965.00 Egyptian pounds.

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*   Cairo: the capital of Egypt

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(Question 1 continued)

(v) Calculate the change in the US dollar price paid between 26 October 2022 and 10 March 2023 by an American businessperson who regularly stays in this hotel when visiting Cairo for business. [3]

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(Question 1 continued)

Figure 3 illustrates the market for soybeans in Egypt where *D* is demand, *S* is supply, *Sw* is world supply and *St* is supply after a tariff has been applied. In Egypt, soybeans are one of the main products used in animal feed.

Figure 3: The market for soybeans in Egypt
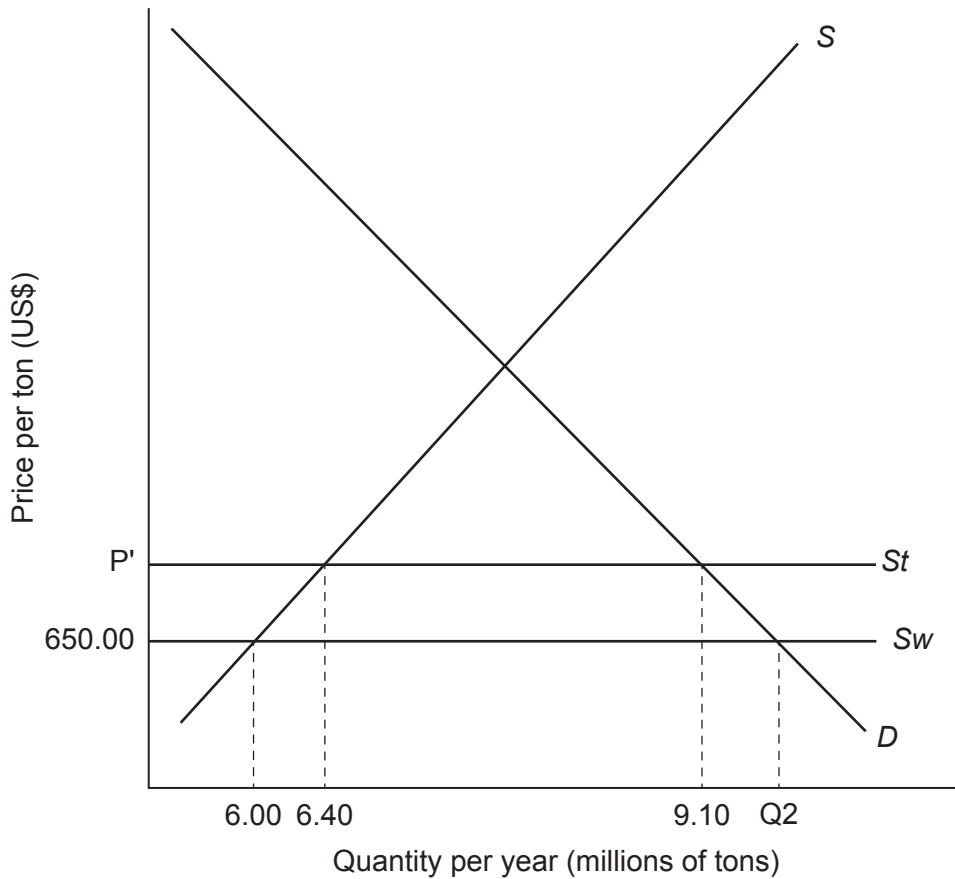
In Egypt, the price per ton of soybeans in 2022 was US$650 and soybean imports were 4.75 million tons. In March 2023, a 4% tariff per ton was imposed by the Egyptian government on soybeans.

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(Question 1 continued)

      (vi)   Using **Figure 3** and the information above, determine the consumption of soybeans in Egypt at the original price of US$650 per ton in 2022. [1]

      (vii)   Using **Figure 3**, calculate the change in total expenditures on soybeans after the 4 % tariff was imposed by the Egyptian government. [3]

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(Question 1 continued)

The following information relates to Egypt's economy:
• Net current transfers for Egypt have increased by more than 25 % since 2019 and reached US$31 449.2 million. A large proportion of these current transfers are migrants' remittances.
• In 2019, according to the World Inequality Database (WID), the top 1 % of Egyptians with the highest incomes received 19 % of the total national income, while the bottom 50 % of Egyptians with the lowest incomes received only 17.2 %.

(viii) Using a poverty cycle diagram, explain how increased inflows of remittances from Egypt's migrant workers could help break the poverty cycle. [4]

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(Question 1 continued)

The following information relates to Egypt's economy from 2021 to early 2023:
- Data from Egypt's statistics agency showed that the annual inflation rate surged to a five-year high of 18.7 % in November 2022, the highest since 2017.
- At its first meeting of 2023 the Central Bank of Egypt (CBE) kept interest rates unchanged at 16.25 %, a decision which surprised market analysts who expected an increase.
- By the end of 2021, Egypt's national debt reached US$392 billion. That includes US$137 billion in foreign debt, which is four times higher than in 2010. Most of the government's expenditure has been dedicated to debt repayments and on projects that many consider unnecessary and have contributed to the current financial crisis.
- In December 2022 the International Monetary Fund (IMF) extended a US$3 billion loan to Egypt, the fourth aid package in six years, as Egypt's financial crisis continued. It required the government to adopt a monetary policy aimed at gradually reducing inflation. It also required the government to adopt policies that sought to correct external imbalances and restore competitiveness, reduce the budget deficit and public debt, boost growth and create jobs.
- Egypt was also required to implement structural reforms to reduce the role of the state and to encourage private-sector-led growth; it was also required to implement policies to decrease the degree of corruption to restore investors' confidence in the short-term and long-term prospects of the Egyptian economy.
- Egypt's Ministry of Trade and Industry held meetings with major international companies, in an attempt to provide an attractive investment climate. It adopted several initiatives including measures aiming at simplifying procedures for foreigners wishing to conduct business in Egypt.

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(Question 1 continued)

(b) Using the text/data provided and your knowledge of economics, recommend a policy that could be introduced by the government of Egypt to stabilize the value of the Egyptian pound (EGP), which has been depreciating since 2022. [10]

2. Economists agree that travel by train, instead of by plane or car, should be promoted in Europe because of environmental issues. However, the growth of passenger rail travel in Spain has slowed down. During 2013, millions of passenger-kilometres* travelled on railways in Spain increased by 6.72 %, while in 2019 the annual increase only amounted to 1.36 %.

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*   passenger-kilometres measure the distance travelled by all passengers over one year

Figure 4 illustrates the monopoly-market structure for tickets on a train between Madrid and Barcelona in Spain. *MC* is marginal cost, *AC* is average cost, *D* is the demand for tickets and *MR* is marginal revenue.

Figure 4
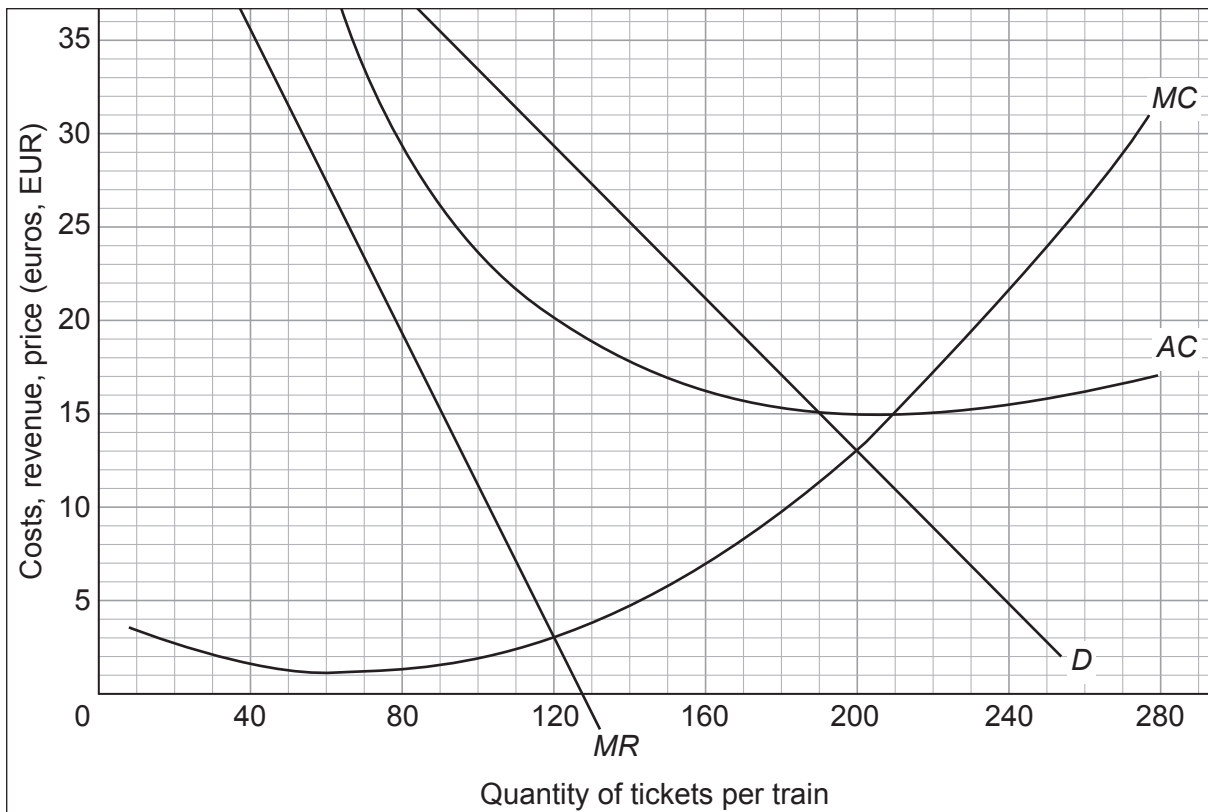
(a) (i)   Using **Figure 4**, identify the profit maximizing quantity of tickets.   [1]

(ii)   Using **Figure 4**, identify the allocatively efficient quantity of tickets.   [1]

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(Question 2 continued)

When the railway firm maximizes its profits, the train is almost half empty. However, when the allocatively efficient quantity of tickets is sold, the firm is making losses.

A railway is a natural monopoly.

(iii)   Outline **one** reason why a railway is a natural monopoly. [2]

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(iv)   Using a diagram with a straight-line downward-sloping demand curve and a marginal revenue curve, explain why the price elasticity of demand changes along the demand curve. [4]

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(Question 2 continued)

Figure 5 is a demand and supply diagram that illustrates the effect if the government of Spain provides a per-unit subsidy for train tickets. *D* is demand, S_1 is the original supply. S_2 is supply after the subsidy has been provided.

Figure 5
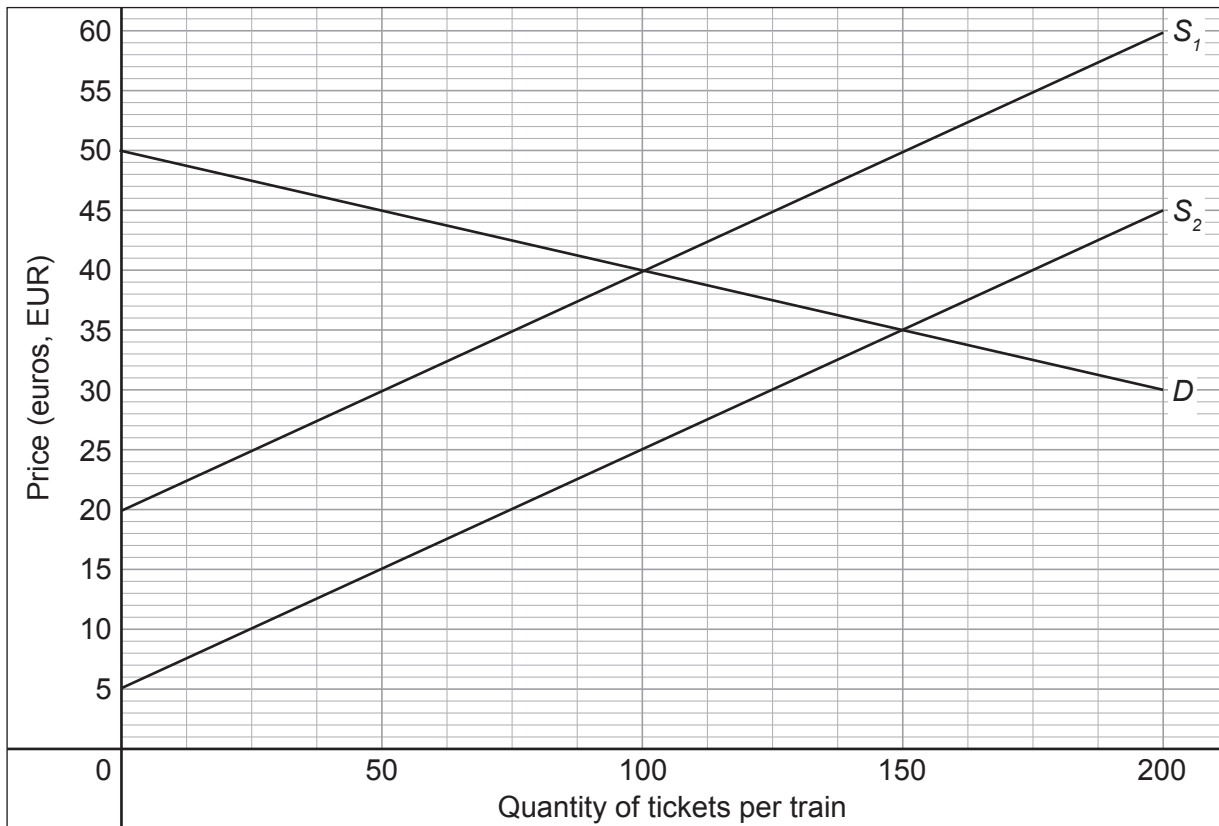
(v) Using **Figure 5**, identify the per-unit subsidy for tickets. [1]

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(vi) Using **Figure 5**, calculate the change in the consumer surplus after the subsidy has been provided. [2]

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(Question 2 continued)

    (vii) Using **Figure 5**, calculate the change in the producer surplus after the subsidy
has been provided. [2]

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The European Investment Bank has been promoting sustainable investment in the rail sector. Electrification of railways and the use of new technologies are better for the environment than systems that use diesel trains. Such government investment causes additional growth in the economy's output through the Keynesian multiplier effect.

Assume that Spanish consumers spend EUR 0.75 on domestic goods and services out of every additional EUR 1.00 of income.

    (viii) Calculate the maximum increase in real gross domestic product (GDP) when the government of Spain makes a EUR 2.45 billion investment in new trains and tracks. [1]

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(Question 2 continued)

Government investment in railways is constrained by Spain's level of government debt, as shown in **Table 2**. Despite a planned reduction in the budget deficit, International Monetary Fund (IMF) projections up to 2027 estimate that general government debt as a percentage of GDP will remain at over 110 %, which may not be sustainable.

Table 2: General government finance statistics for Spain

	2020	**2021**	**2022**
Revenue (EUR billion)	468	528	571
Expenditure (EUR billion)	579	607	627
Budget deficit (EUR billion)	111	79	56
Government (national) debt (EUR billion)	1656	1722	1562
Government debt to GDP ratio (%)	120.4	118.4	112.8

(ix) With **two** references to the data provided in **Table 2**, explain the difference between a budget deficit and government debt. [4]

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(Question 2 continued)

To reduce the possible risk from unsustainable government debt, policies could be chosen that do not require large increases in government expenditure. For example, regulations could require that any abnormal profits earned by a railway firm must be directed to investments in upgrading the railway sector.

Alternatively, the government could promote consumer nudges to influence how people choose to travel.

(x)   Define the term *consumer nudge*.   [2]

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(Question 2 continued)

(b) Using the text/data provided and your knowledge of economics, recommend a policy that the government of Spain could introduce to increase travel by train. [10]

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References:

Figure 1   The Economist, 2023. *A crisis of confidence in Egypt* [online] Available at: https://www.economist.com/middle-east-and-africa/2023/01/24/a-crisis-of-confidence-in-egypt [Accessed 3 October 2023] Source adapted. © The Economist Group Limited, London (2023).

Figure 2   Trading Economics, n.d. *Egyptian Pound Summary* [online] Available at: https://tradingeconomics.com/egypt/currency [Accessed 3 October 2023] Source adapted.

2   European Environment Agency, 2021. *Train or Plane?* [online] Available at: https://www.eea.europa.eu/publications/transport-and-environment-report-2020 [Accessed 3 October 2023] Source adapted.

Eurostat Database, 2023. *Transport Database* [online] Available at: https://ec.europa.eu/eurostat/web/transport/database [Accessed 3 October 2023] Source adapted.

European Investment Bank, 2021. *Green Rail Investment Platform* [pdf online] Available at: https://www.eib.org/attachments/publications/green_rail_investment_platform_en.pdf [Accessed 3 October 2023] Source adapted.

Table 2   International Monetary Fund, 2023. *Spain: 2022 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Spain* [online] Available at: https://www.imf.org/en/Publications/CR/Issues/2023/01/19/Spain-2022-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-528338 [Accessed 3 October 2023] Source adapted.

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