8824 – 5107M

Diploma Programme
Programme du diplôme
Programa del Diploma

Markscheme

November 2024

Economics

Higher level

Paper 3

15 pages

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Notes for examiners:

1. **Whenever relevant, carry over marks must be awarded. If a candidate makes an error in calculation, but then uses the incorrect figure appropriately and accurately in later question parts, then the candidate may be fully rewarded. This is the "own-figure rule" and you should put OFR on the script where you are rewarding this.**

2. **Alternative approaches may be taken in responses to the [4] questions that use A02 command terms. If this is the case and the alternative approaches are valid, then full credit should be given.**

3. **A candidate may be penalized for not rounding correctly/failing to give answers correct to 2 dp; OR, in some cases, for not including the appropriate units. However, a candidate may only be penalized ONCE per <u>script</u> for each type of error.**

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

Level		Marks
0	*The work does not meet a standard described by the descriptors below.*	0
1	*Vague definition*	1
	The idea that it is the difference between export and imports ***OR*** it consists of trade, income and transfers balances.	
2	*Accurate definition*	2
	The sum of net exports of goods and services plus net income plus net current transfers.	

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

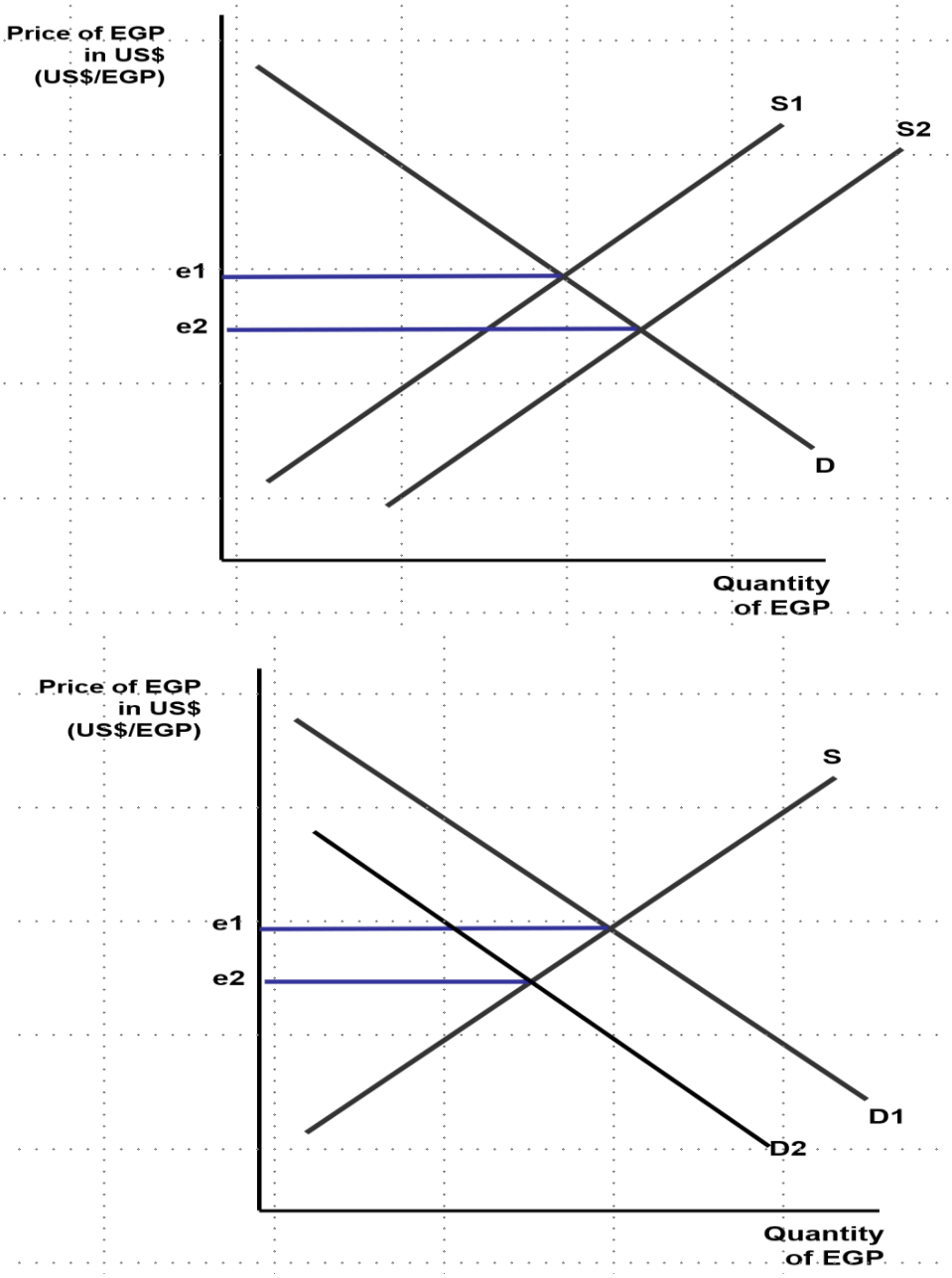
2021: - 42.06 + 4.12 -12.4 + 30.9 = – 19.44 billion US$ **OR** – 19.44 **[1]**

2022: - 43.39 +11.16 -15.76 +31.45 = – 16.54 billion US$ **OR** – 16.54 **[1]**

Workings are not required.

(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]**

Level		Marks
0	*The work does not meet a standard described by the descriptors below.*	0
1	*The written response is limited.*	1–2
	For a correct foreign exchange diagram showing a shift of the supply of EGP to the right (**or** a shift of the demand for EGP to the left), with a decrease in the price of the Egyptian currency (EGP). ***OR*** For an explanation that a current account deficit implies that import expenditures are increasing (faster than export revenues) **[1]** and leading to a higher supply of the Egyptian pound (as importers need to sell Egyptian pounds), causing a depreciation of the currency **[1]** (**or** that export revenues are decreasing (relative to import expenditures) **[1]** as foreigners need to buy fewer Egyptian pounds leading to a lower demand for Egyptian pounds, causing a depreciation of the currency **[1]**.)	
2	*The written response is accurate.*	3–4
	For a correct foreign exchange diagram showing a shift of the supply of EGP to the right (**or** a shift of the demand for EGP to the left), with a decrease in the price of the Egyptian currency (EGP). ***AND*** For an explanation that a current account deficit implies that import expenditures are increasing (faster than export revenues) **[1]** and leading to a higher supply of the Egyptian pound (as importers need to sell Egyptian pounds), causing a depreciation of the currency **[1]** (**or** that export revenues are decreasing (relative to import expenditures) **[1]** as foreigners need to buy fewer Egyptian pounds leading to a lower demand for Egyptian pounds, causing a depreciation of the currency **[1]**.)	



*Candidates who incorrectly label diagrams may be awarded a maximum of **[3]**.*
The vertical axis may be exchange rate, price/value of EGP in another currency, other currency/EGP or other currency per EGP. The horizontal axis should be quantity or quantity of EGP. All abbreviations are acceptable. A title is not necessary.

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

The Egyptian pound has depreciated / any correct description of the data

(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]**

26 October 2022 $\frac{5965}{19.308}$ = 308.94 **[1]**

10 March 2023 $\frac{5965}{30.85}$ = 193.35 **[1]**

Change = 193.35 – 308.94 = – 115.59 US$ (decrease) **[1]**

An answer of – 115.58 US$ should be permitted (as a consequence of not rounding during the calculation process).

*Any valid working should be rewarded with **[1]**.*

An answer of – 115.59 **or** – 115.58 *without workings is sufficient for **[1]**.*

For full marks to be awarded the response must provide valid working and correct units.

*OFR applies, if only **one** of the prices in US$ is calculated correctly.*

(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]**

6.0 + 4.75 = 10.75 million tons **or** 10.75

Workings are not required.

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

Price of soybeans following the 4% tariff = 650 x 1.04 = 676 **[1]**

Original consumption expenditures = 10.75 x 650 = 6987.50
New consumption expenditures = 9.1 x 676 = 6151.60 **[1]**

Change: 6151.60 – 6987.5 = – 835.90 million US$ (decrease) **[1]**

*Any valid working should be rewarded with **[1]**.*

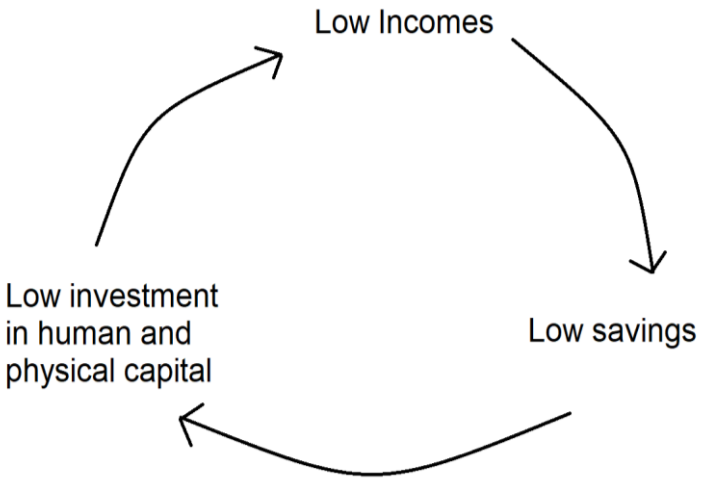
An answer of – 835.90 *without workings is sufficient for **[1]**.*

For full marks to be awarded the response must provide valid working and correct units.

*OFR applies, if the initial quantity from (vi)**, or** the new price is calculated incorrectly **or** if just one of the expenditures is calculated incorrectly.*

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

Level		Marks
0	The work does not meet the standard described by the descriptors below.	0
1	There is a correct diagram OR an accurate written response.	1–2
	For a poverty cycle diagram, with low incomes resulting in low savings and thus low investment in human/physical capital which keeps incomes low ***OR*** for an explanation that increased remittances will increase incomes, permitting more savings, increased investments **[1]** and therefore raise incomes / reduce poverty (which will break the cycle) **[1]**.	
2	There is a correct diagram AND an accurate written response.	3–4
	For a poverty cycle diagram, with low incomes resulting in low savings and thus low investment in human/physical capital which keeps incomes low ***AND*** for an explanation that increased remittances will increase incomes, permitting more savings, increased investments **[1]** and therefore raise incomes / reduce poverty (which will break the cycle) **[1]**.	



*Any relevant poverty cycle diagram should be rewarded. However, one that does not indicate low investment/human capital should **not** be rewarded**.** The wording may be different, so long as it is equivalent. A title is not necessary.*

(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]**

Possible policies **may** include (but are not restricted to):

- Contractionary monetary policy
- Contractionary fiscal policy
- Reducing the budget deficit and the government (national) debt
- Implementing structural reforms to increase (export) competition
- Decreasing corruption
- Decreasing the cost of doing business in Egypt
- SSPs to boost long term growth/productive capacity
- Trade protection
- *Any other valid policy which is linked to currency stabilization.*

If several policies are recommended, examiners should reward only the best one unless the policies are shown to be complementary or if they are compared/contrasted.

Assessment Criteria
Recommend—present an advisable course of action with appropriate supporting evidence/reason in relation to a given situation, problem or issue.

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–2	The response identifies a policy. The response uses no economic theory to support the recommendation. Economic terms are stated but are not relevant. The response contains no use of text/data to support the recommendation. The response contains no evidence of synthesis or evaluation.
3–4	The response identifies an appropriate policy. The response uses limited economic theory to support the recommendation in a superficial manner. Some relevant economic terms are included. The response contains no use of relevant text/data to support the recommendation. The response contains evidence of superficial synthesis or evaluation.
5–6	The response identifies and explains an appropriate policy. The response uses relevant economic theory to partially support the recommendation. Some relevant economic terms are used appropriately. The response includes some relevant information from the text/data to support the recommendation. The response contains evidence of appropriate synthesis or evaluation but lacks balance.
7–8	The response identifies and fully explains an appropriate policy. The response uses relevant economic theory to support the recommendation. Relevant economic terms are used mostly appropriately. The use of information from the text/data is generally appropriate, relevant and applied correctly to support the recommendation. The response contains evidence of appropriate synthesis or evaluation that is mostly balanced.
9–10	The response identifies and fully explains an appropriate policy. The response uses relevant economic theory effectively to support the recommendation. Relevant economic terms are used appropriately throughout the response. The use of information from the text/data is appropriate, relevant and supports the analysis/evaluation effectively. The response contains evidence of effective and balanced synthesis or evaluation.

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

120

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

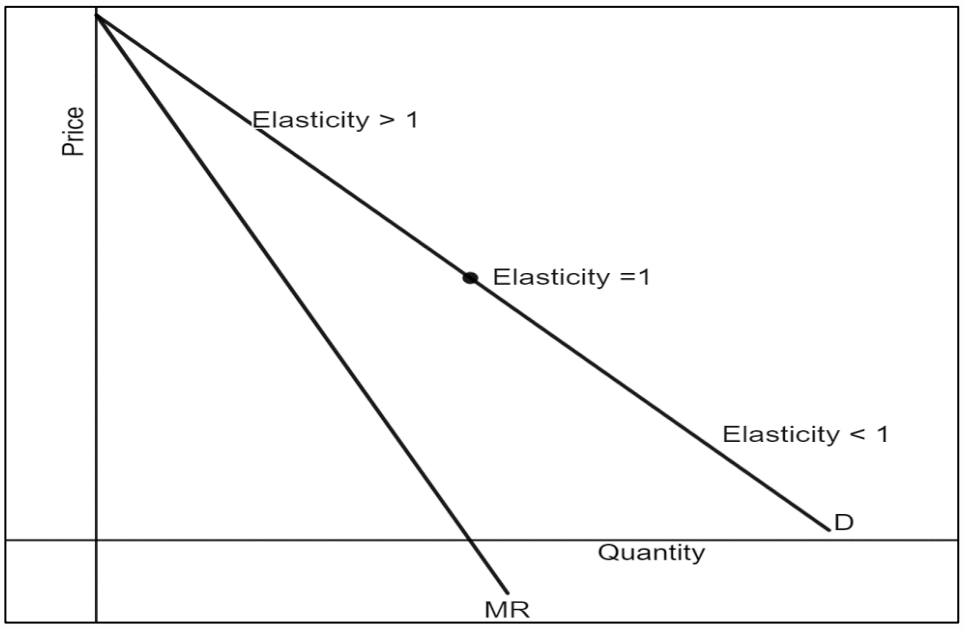
200

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

Level		Marks
0	*The work does not meet a standard described by the descriptors below.*	0
1	*The written response is limited.*	1
	For stating **one** of the following: • economies of scale • high fixed costs • high track laying / train purchasing costs.	
2	*The written response is accurate.*	2
	For outlining **one** of the following: • AC falls throughout the relevant section of the demand curve • one firm can supply the whole market most efficiently at lower AC • fixed costs (of establishing a network) are high while the marginal cost (of carrying an additional passenger) is low – hence AC is falling.	

(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]**

Level		Marks
0	*The work does not meet a standard described by the descriptors below.*	0
1	*The written response is limited.*	1–2
	For a correctly labelled diagram showing both D and MR **[1]** and some correct reference to changing PED along the D curve **[1]** **OR *one*** *of the following explanations:* • When MR is positive, PED is greater than 1, because TR is rising, and when MR is negative, PED is less than 1, because TR is falling as the price falls • As the price drops and the quantity increases, the percentage change in the price rises, while the percentage change in the quantity falls, so the elasticity (%change in Q / %change in P) decreases • Elasticity can be measured by $\left(\frac{\Delta Q}{\Delta P}\right) \times \frac{P}{Q}$ The first term is the slope, which is constant, while the second term falls as Q increases. • At higher prices, spending on a good represents a greater proportion of income which results in demand becoming more price elastic (than when the price is low).	
2	*The written response is accurate.*	3–4
	For a correctly labelled diagram showing both D and MR **[1]** and some correct reference to changing PED along the D curve **[1]** **AND *one*** *of the following explanations:* • When MR is positive, PED is greater than 1, because TR is rising, and when MR is negative, PED is less than 1, because TR is falling as the price falls • As the price drops and the quantity increases, the percentage change in the price rises, while the percentage change in the quantity falls, so the elasticity (%change in Q / %change in P) decreases • Elasticity can be measured by $\left(\frac{\Delta Q}{\Delta P}\right) \times \frac{P}{Q}$ The first term is the slope, which is constant, while the second term falls as Q increases. • At higher prices, spending on a good represents a greater proportion of income which results in demand becoming more price elastic (than when the price is low).	



*Candidates who incorrectly label diagrams may be awarded a maximum of **[3]**. The vertical axis may be labelled price or P, and the horizontal axis labelled quantity or Q. MR and D and some correct reference to changing PED (either as in the diagram above or by indicating a falling PED) are required to be part of the labelling. A title is not necessary.*

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

15 **or** €15

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

0.5 x 5 (100 + 150)

OR 0.5(150 x 15) — 0.5(100 x 10)

= 1125 — 500

*Any valid working should be rewarded with **[1].***

= EUR 625 **or** €625 **[1]**

*An answer of 625 without workings is sufficient for **[1]**.*

For full marks to be awarded the response must provide valid working and correct units.

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

0.5 x 10(100 + 150)

OR 0.5(150 x 30) — 0.5(100 x 20)

= 2250 – 1000

*Any valid working should be rewarded with **[1].***

= EUR 1250 **or** €1250 **[1]**

*An answer of 1250 without workings is sufficient for **[1]**.*

For full marks to be awarded the response must provide valid working and correct units.

(viii) Calculate the maximum increase in real gross domestic product (GDP) when the government of Spain makes a EUR2.45 billion investment in new trains and tracks. **[1]**

4 x 2.45 = €9.80 billion **OR** 9.8

Workings are not required.

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

Level		Marks
0	*The work does not meet a standard described by the descriptors below.*	0
1	*The written response is limited.*	1–2
	For a correct explanation of a budget deficit **OR** a correct explanation of government debt **[1]** with at least **one** reference to (example from) the data **[1]**. **Budget deficit**: Is (a flow) when government expenditure/spending exceeds government (tax) revenue (usually over a period of a year). **Government debt:** The sum/accumulation (stock) of all past budget deficits minus any budget surpluses **OR** the total amount the government owes to (domestic and foreign) creditors. ***Data examples:*** • *In 2020 there was a budget deficit of €111 billion, which was equal (in absolute terms) to expenditure less revenue.* • *In 2021 the government debt increased to €1736 billion from its 2020 level due to the budget deficit of €79 billion.* • *Even though there is still a deficit, the government debt to GDP ratio has fallen to 112.8%, because GDP has increased.* • *Reference to any relevant data should be rewarded.*	
2	*The written response is accurate.*	3–4
	For a correct explanation of a budget deficit **AND** a correct explanation of government debt **[2]** with **two** references to (examples from) the data **[1 + 1]**.	

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

Level		Marks
0	*The work does not meet a standard described by the descriptors below.*	0
1	*Vague definition*	1
	For the idea that it is an action which aims to influence consumer behaviour	
2	*Accurate definition*	2
	A clear understanding that it is an action which aims to influence consumer behaviour without restricting or penalising consumer choice / provision of any financial incentive / by using psychology	

(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]**

*Possible policies **may** include (but are not restricted to):*

- Per unit subsidy for train tickets or no sales tax on tickets
- Higher taxes on car use and/or plane tickets (*e.g.* higher taxes on gasoline; congestion charges; carbon taxes)
- Regulation of ticket prices
- Requiring railway firms to invest in electrification and new technologies
- Government investment in high-speed (express) trains, tracks, electrification, *etc.*
- Regulation/legislation that limits market power and promotes competition between private railway firms
- Government ownership (nationalization) of the rail companies with appropriate regulation of prices and quantities of services
- Nudges or choice architecture: green mobility advertising, guiding social norms
- Discounted ticket prices for certain groups (seniors, families, *etc.*)
- *Any other valid policy which is linked to an increase in train travel.*

If several policies are recommended, examiners should reward only the best one unless the policies are shown to be complementary or if they are compared/contrasted.

Assessment Criteria
Recommend—present an advisable course of action with appropriate supporting evidence/reason in relation to a given situation, problem or issue.

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