

No part of this product may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without written permission from the IB.

Additionally, the license tied with this product prohibits commercial use of any selected files or extracts from this product. Use by third parties, including but not limited to publishers, private teachers, tutoring or study services, preparatory schools, vendors operating curriculum mapping services or teacher resource digital platforms and app developers, is not permitted and is subject to the IB's prior written consent via a license. More information on how to request a license can be obtained from <http://www.ibo.org/contact-the-ib/media-inquiries/for-publishers/guidance-for-third-party-publishers-and-providers/how-to-apply-for-a-license>.

Aucune partie de ce produit ne peut être reproduite sous quelque forme ni par quelque moyen que ce soit, électronique ou mécanique, y compris des systèmes de stockage et de récupération d'informations, sans l'autorisation écrite de l'IB.

De plus, la licence associée à ce produit interdit toute utilisation commerciale de tout fichier ou extrait sélectionné dans ce produit. L'utilisation par des tiers, y compris, sans toutefois s'y limiter, des éditeurs, des professeurs particuliers, des services de tutorat ou d'aide aux études, des établissements de préparation à l'enseignement supérieur, des fournisseurs de services de planification des programmes d'études, des gestionnaires de plateformes pédagogiques en ligne, et des développeurs d'applications, n'est pas autorisée et est soumise au consentement écrit préalable de l'IB par l'intermédiaire d'une licence. Pour plus d'informations sur la procédure à suivre pour demander une licence, rendez-vous à l'adresse <http://www.ibo.org/fr/contact-the-ib/media-inquiries/for-publishers/guidance-for-third-party-publishers-and-providers/how-to-apply-for-a-license>.

No se podrá reproducir ninguna parte de este producto de ninguna forma ni por ningún medio electrónico o mecánico, incluidos los sistemas de almacenamiento y recuperación de información, sin que medie la autorización escrita del IB.

Además, la licencia vinculada a este producto prohíbe el uso con fines comerciales de todo archivo o fragmento seleccionado de este producto. El uso por parte de terceros —lo que incluye, a título enunciativo, editoriales, profesores particulares, servicios de apoyo académico o ayuda para el estudio, colegios preparatorios, desarrolladores de aplicaciones y entidades que presten servicios de planificación curricular u ofrezcan recursos para docentes mediante plataformas digitales— no está permitido y estará sujeto al otorgamiento previo de una licencia escrita por parte del IB. En este enlace encontrará más información sobre cómo solicitar una licencia: <http://www.ibo.org/es/contact-the-ib/media-inquiries/for-publishers/guidance-for-third-party-publishers-and-providers/how-to-apply-for-a-license>.



Economics
Higher level
Paper 3

Thursday 7 November 2019 (morning)

Candidate session number

1 hour

--	--	--	--	--	--	--	--	--	--

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 two 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.
- The maximum mark for this examination paper is **[50 marks]**.



Answer **two** questions. Each question is worth [25 marks]. Answers must be written within the answer boxes provided.

1. (a) State **two** characteristics of a perfectly competitive market. [2]

.....
.....
.....
.....

(b) Using a fully labelled diagram, outline the relationship between marginal product (*MP*) and average product (*AP*) of labour. [4]

.....
.....
.....
.....
.....
.....

(This question continues on the following page)



(Question 1 continued)

The market for corn on the island of Nissos is perfectly competitive. The demand and supply for corn in Nissos are given by the functions

$$Q_d = 10 - 0.5P$$
$$Q_s = -2 + P$$

where Q_d is the quantity of corn demanded per month in millions of kilograms (kg), Q_s is the quantity of corn supplied per month in millions of kg and P is the price per kg of corn in dollars (\$).

- (c) (i) Determine the slope of the market supply function for the corn farmers in Nissos. [1]

.....

.....

- (ii) Calculate the monthly equilibrium quantity of corn in Nissos. [2]

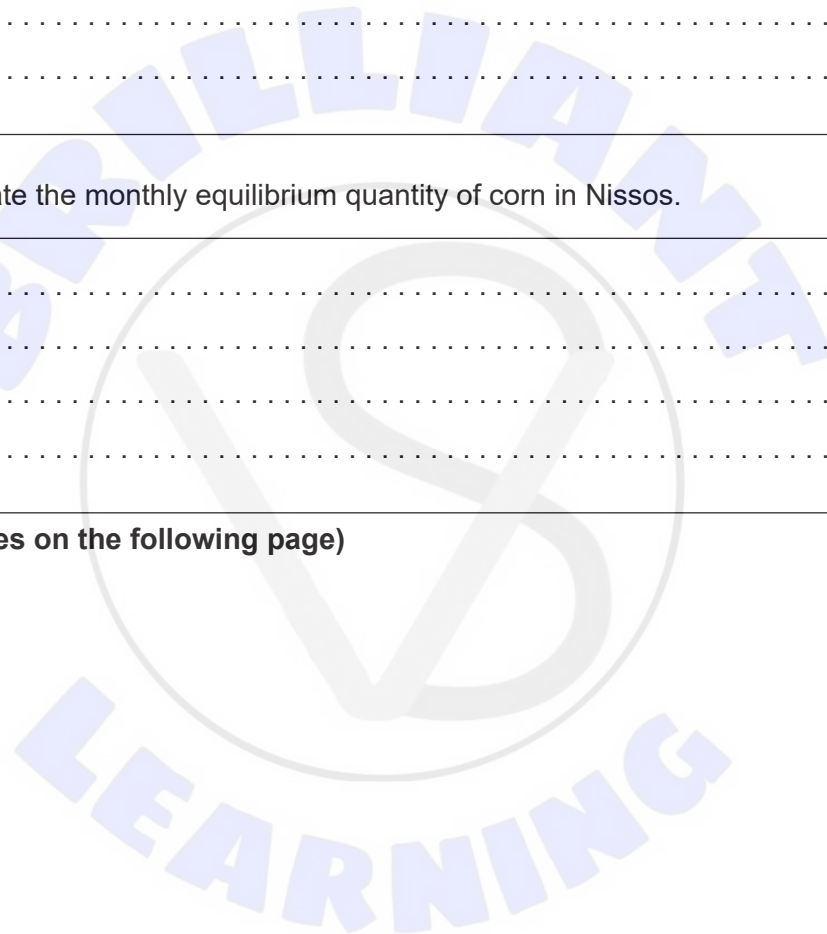
.....

.....

.....

.....

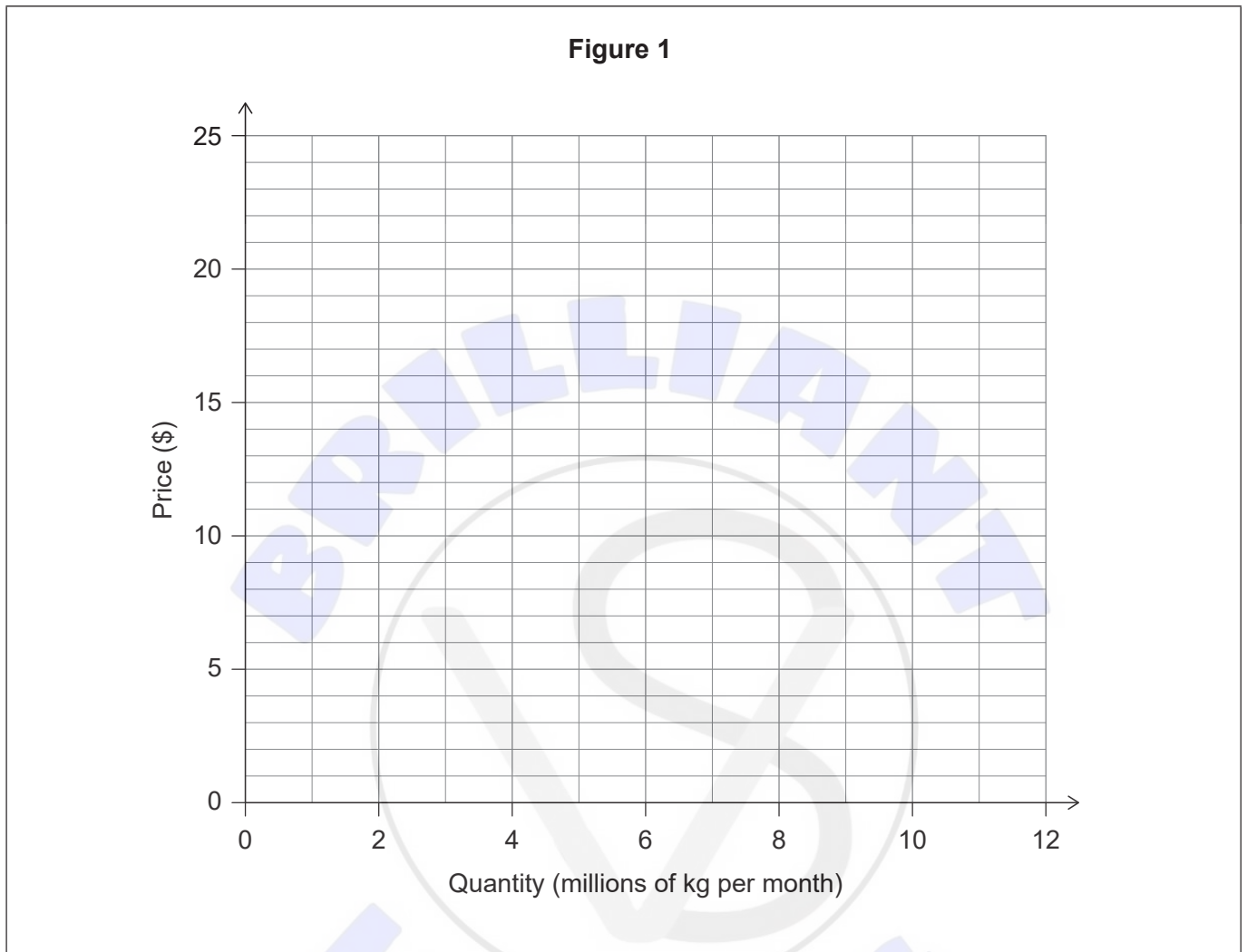
(This question continues on the following page)



(Question 1 continued)

- (d) (i) Plot and label on **Figure 1** the market demand curve **and** the market supply curve for corn in Nissos.

[2]

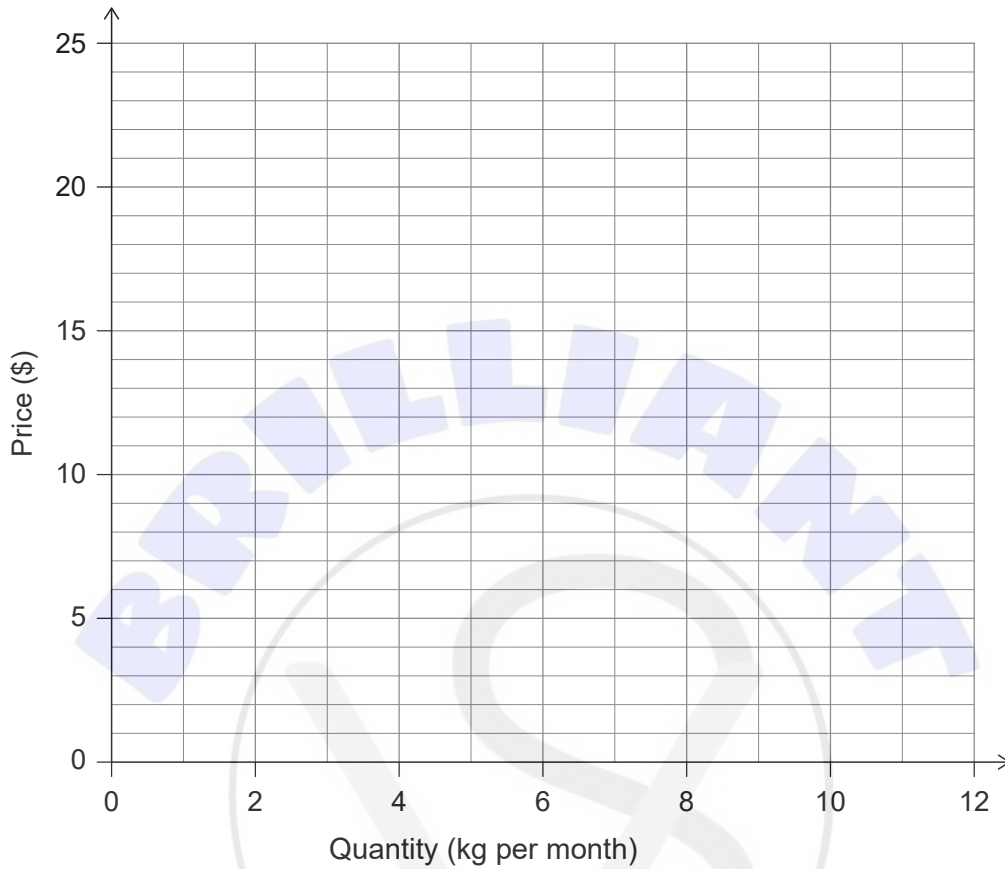


(This question continues on the following page)



(Question 1 continued)

- (ii) Draw and label the marginal revenue (*MR*) curve for corn for an individual farmer in Nissos on the grid below. [1]



- (iii) Using **Figure 1**, calculate the consumer surplus in Nissos at the market equilibrium. [1]

.....

.....

(This question continues on the following page)



(Question 1 continued)

Advisors to the government of Nissos suggest setting a price floor.

- (e) (i) Explain **one** possible advantage **and one** possible disadvantage of governments setting a price floor in agricultural markets. [4]

.....

.....

.....

.....

.....

.....

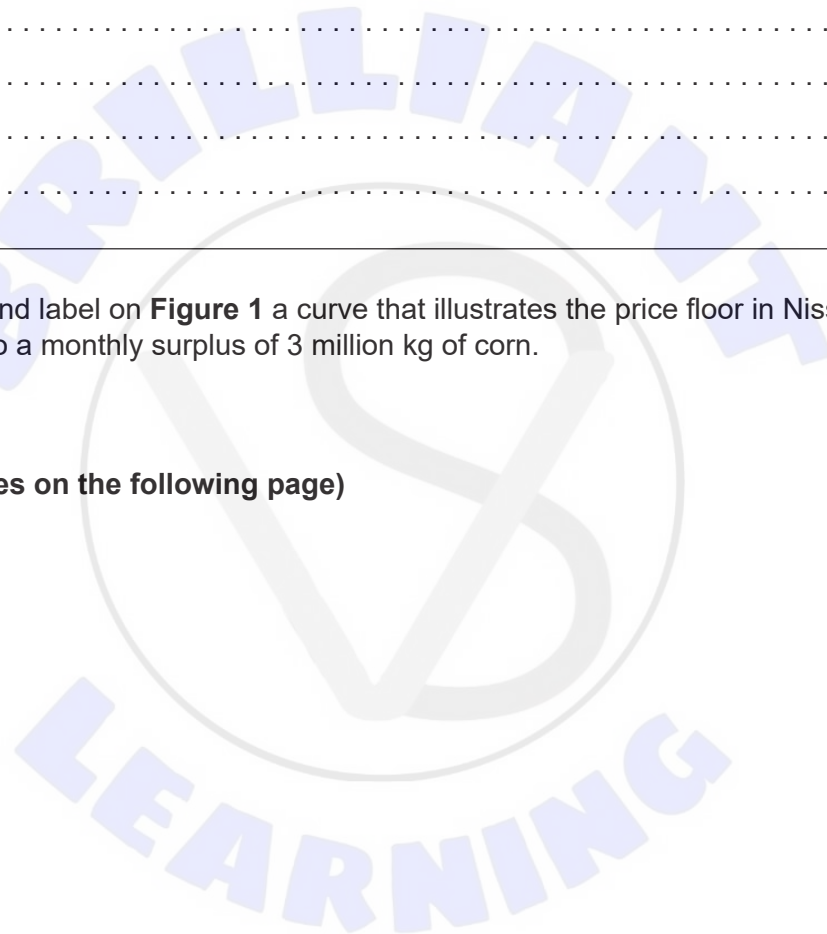
.....

.....

.....

- (ii) Draw and label on **Figure 1** a curve that illustrates the price floor in Nissos that leads to a monthly surplus of 3 million kg of corn. [2]

(This question continues on the following page)



(Question 1 continued)

The monthly corn surplus created must be purchased by the government of Nissos.

- (f) (i) State **one** measure that the government of Nissos might take to deal with this corn surplus, following the imposition of the price floor. [1]

.....

.....

- (ii) Outline why purchasing this surplus implies an opportunity cost for the government of Nissos. [2]

.....

.....

.....

.....

- (iii) Using **Figure 1**, determine the size of the decrease in monthly corn consumption following the imposition of the price floor. [1]

.....

.....

- (iv) Using **Figure 1**, calculate the change in consumer expenditure on corn in Nissos. [2]

.....

.....

.....

.....



2. The information in **Table 1** refers to Country A (base year: 2011).

Table 1

Year	2012	2013	2014	2015
Consumer price index (CPI)	99.08	100.55	102.51	107.52
Inflation rate (%)	-0.92	1.48		
Employed (millions)	12.50	12.60	12.85	13.05
Unemployed (millions)	0.99	0.71	0.68	0.61
Population (millions)	20.75	21.48	21.82	22.02
Unemployment rate (%)			5.03	4.47

(a) (i) Calculate the inflation rate for 2014 **and** for 2015. Enter your results in **Table 1**. [2]

.....
.....
.....
.....

(ii) Calculate the unemployment rate for 2012 **and** for 2013. Enter your results in **Table 1**. [2]

.....
.....
.....
.....

(This question continues on the following page)



(Question 2 continued)

The central bank of Country A aims to achieve price stability, defined as “inflation below but close to 2% annually”.

- (b) Explain **two** reasons why low and stable inflation is desirable. [4]

.....

.....

.....

.....

.....

.....

.....

.....

.....

- (c) State **two** functions of a country’s central bank. [2]

.....

.....

.....

.....

- (d) Using the data in **Table 1** to support your answer, identify **two** reasons why many economists would consider Country A’s economy to be performing poorly in 2012. [2]

.....

.....

.....

.....

(This question continues on the following page)



(Question 2 continued)

- (e) State **one** reason why monetary policy is considered to have limited effectiveness in increasing aggregate demand if an economy is in a deep recession. [1]

.....

.....

- (f) Explain **two** reasons why fiscal policy may prove effective in lifting an economy out of a deep recession. [4]

.....

.....

.....

.....

.....

.....

.....

.....

.....

- (g) Outline the meaning of the natural rate of unemployment, with reference to the long-run Phillips curve and types of unemployment. [2]

.....

.....

.....

.....

(This question continues on the following page)



(Question 2 continued)

The information in **Table 2** refers to Country B, an economically less developed economy.

Table 2

Year	2014	2015
Nominal gross national income (GNI) (\$ billion)	291.53	
Factor income sent abroad (\$ billion)	68.30	75.90
Factor income earned abroad (\$ billion)	8.13	9.49
Nominal gross domestic product (GDP) (\$ billion)		358.97
GDP deflator	100	100.88
Real GDP (\$ billion)		

(h) Using the information in **Table 2** for Country B:

(i) calculate nominal GDP in 2014. Enter your result in **Table 2**. [1]

.....
.....

(ii) calculate nominal GNI in 2015. Enter your result in **Table 2**. [1]

.....
.....

(i) Using the information in **Table 2** for Country B, determine real GDP in 2014 **and** in 2015. Enter your results in **Table 2**. [1]

.....
.....

(This question continues on the following page)



(Question 2 continued)

- (j) Using the information in **Table 2** for Country B, calculate the rate of economic growth between 2014 and 2015.

[1]

.....

.....

The data in **Table 2** suggest that Country B may have attracted significant foreign direct investment (FDI).

- (k) Outline **one** possible disadvantage of foreign direct investment (FDI) for economically less developed countries.

[2]

.....

.....

.....

.....



3. In the country of Gardia, the currency is the gamma. The exchange rate of the United States dollar (US\$) to the gamma is US\$ 1 = 6.20 gamma.

(a) (i) If a visitor to Gardia from the US buys a towel that costs 23 gamma, calculate the cost in US\$. [1]

.....
.....

(ii) More foreign tourists are visiting Gardia. Outline the effect on the value of the gamma. You must give a reason for your answer. [2]

.....
.....
.....
.....

(iii) State **two** factors that could cause Gardia's current account to be in deficit, even though its balance of trade in goods is in surplus. [2]

.....
.....
.....
.....

(iv) Determine the size of Gardia's current account surplus/deficit when the sum of the financial and capital accounts is US\$ 2 billion. [1]

.....
.....

(This question continues on the following page)



(Question 3 continued)

- (b) Gardia is aiming to increase its economic growth rate. Explain **two** sources of economic growth for economically less developed countries.

[4]

.....

.....

.....

.....

.....

.....

.....

.....

Gardia received a loan of US\$ 4 million from a foreign bank in 2018 when the exchange rate was US\$ 1 = 5.3 gamma. It must pay back US\$ 4.2 million (original amount borrowed plus interest) in 2019 when the exchange rate is US\$ 1 = 6.2 gamma.

- (c) Calculate the additional cost of paying back the loan in gamma in 2019, due to the interest and the change in the exchange rate.

[2]

.....

.....

.....

.....

(This question continues on the following page)



(Question 3 continued)

Both the gamma and the US\$ are fully convertible currencies, which float freely in foreign exchange markets. The supply and demand for US\$ (in billions) are given by the functions

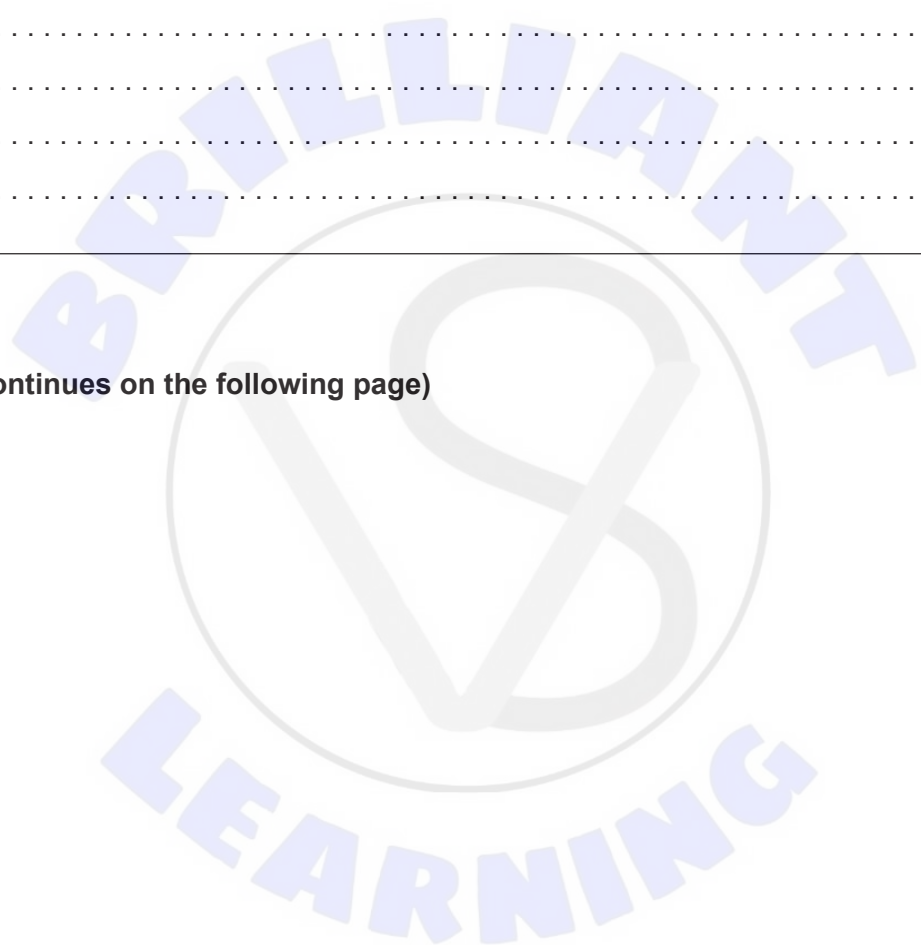
$$Q_s = -2 + g$$
$$Q_d = 10 - 2g$$

where g is the exchange rate of the US\$ in terms of the gamma, Q_s is the quantity of US\$ supplied per month and Q_d is the quantity of US\$ demanded per month.

(d) Calculate the equilibrium exchange rate for the US\$ in terms of the gamma. [2]

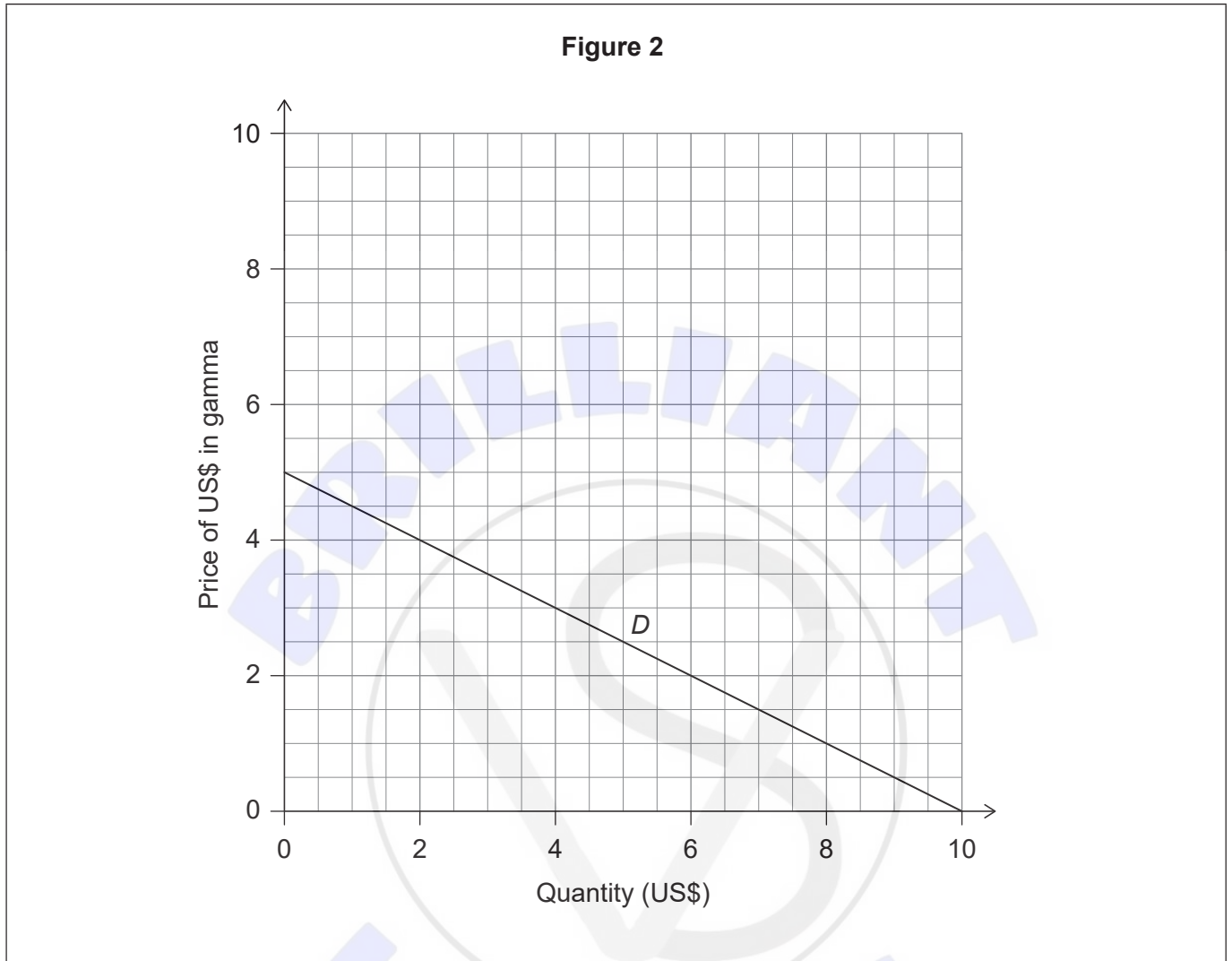
.....
.....
.....
.....

(This question continues on the following page)



(Question 3 continued)

The demand (*D*) function is represented in **Figure 2**.



Assume that the monthly supply of US\$ changes to the function

$$Q_s = -0.5 + g$$

(e) Plot and label the new supply curve on **Figure 2**. [2]

(f) (i) Using **Figure 2**, calculate how many US\$ are needed to buy one gamma at the new exchange rate. [1]

.....

.....

(This question continues on the following page)



(Question 3 continued)

- (ii) State **two** reasons that could have caused an increase in the supply of US\$. [2]

.....

.....

.....

.....

Gardia's investment (in plant and equipment) increased by 11 million gamma in the last month. In the same month, its government spending decreased by 8 million gamma. It has been estimated that the marginal propensity to consume (MPC) on domestic goods and services in Gardia is 0.75.

- (g) Calculate the maximum possible increase in real gross domestic product (GDP) in Gardia that could result from the changes in investment and government spending. [2]

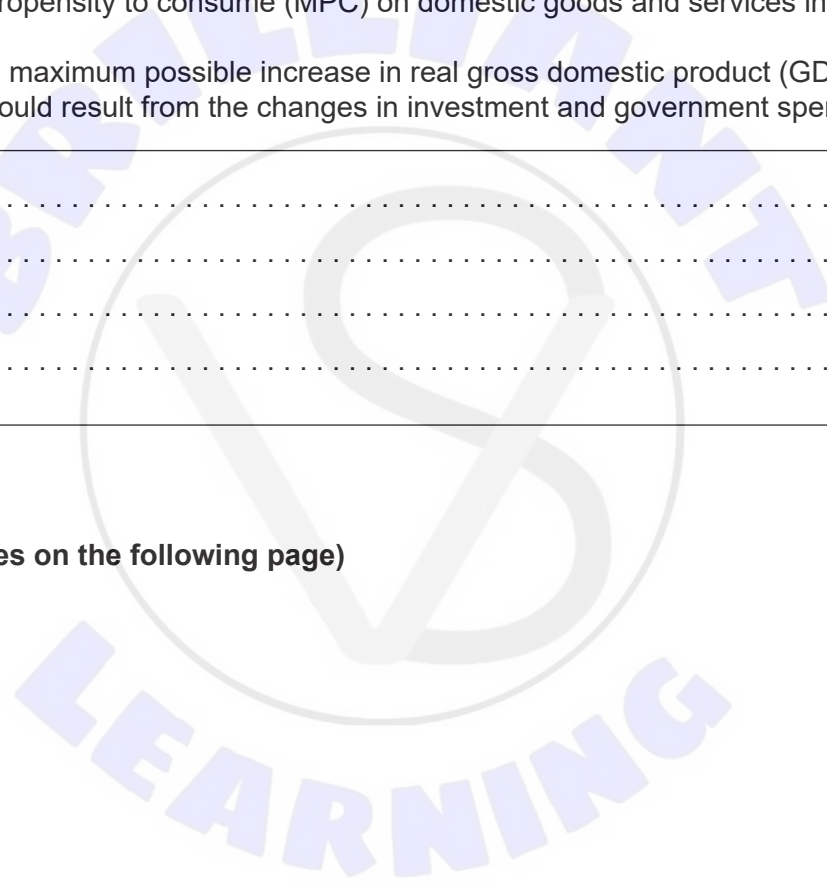
.....

.....

.....

.....

(This question continues on the following page)



(Question 3 continued)

- (h) Using a fully labelled monetarist/new classical diagram, explain why, while there may be short-term fluctuations in output, the economy will always return to the full employment level of output in the long run.

[4]

BRILLIANT LEARNING





Please **do not** write on this page.
Answers written on this page
will not be marked.





Please **do not** write on this page.
Answers written on this page
will not be marked.

