

SECTION 9: EXTENSION OF TRADE THEORY AND ECONOMIC DEVELOPMENT

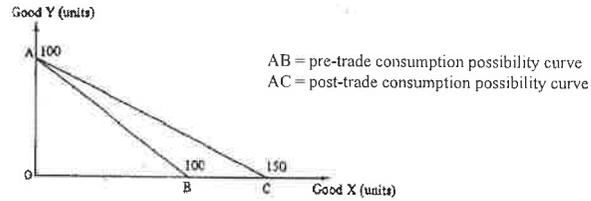
9.1 EXTENSION OF TRADE THEORY

Multiple Choice Questions

(Note: For reference only; no multiple-choice question will be set on the elective parts.)

1990/AL/11/20

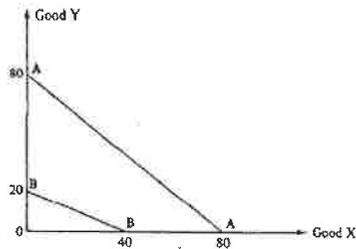
Refer to the following diagram about a country:



Which of the following statements about the country are correct?

- (1) Trade allows consumption to go beyond its production possibility curve.
 - (2) It has a comparative advantage over its trading partner in the production of X.
 - (3) The cost to its trading partner of producing 1Y is higher than 1.5X.
- A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

1991/AL/11/04

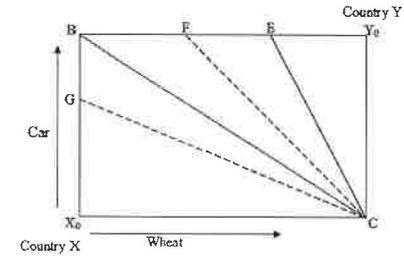


In the above diagram, AA and BB are the production-possibility frontiers of Countries A and B respectively,

- A. Country A will not trade with Country B.
B. Country A will export Good X to Country B.
C. Country B has a comparative advantage in the production of Good X.
D. Country B has an absolute advantage over Country A in the production of Good Y.

360

1992/AL/11/29



Refer to the above diagram. BC and CE are the production possibility frontiers of Country X and Country Y respectively. Which of the following statements is FALSE?

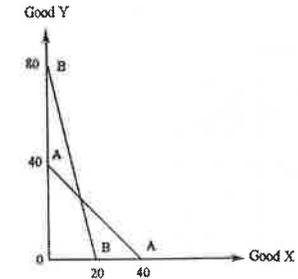
- A. Country X has a comparative advantage in the production of wheat.
B. Country Y has a higher opportunity cost in the production of wheat.
C. If CG represents the terms of trade, Country X gains through importing cars from Country Y.
D. If CF represents the terms of trade, Country X gains through importing cars from Country Y.

1995/AL/11/21

Trade enables a country to

- A. produce beyond its production possibility curve.
B. consume beyond its production possibility curve.
C. produce and consume beyond its production possibility curve.
D. None of the above.

1996/AL/11/24

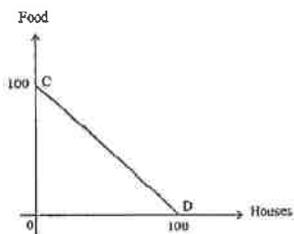


Refer to the above diagram; AA and BB are the production possibility frontiers of Country A and B respectively. Which of the following statements is correct?

- A. Country A has a comparative advantage in the production of good Y.
B. Country B has a lower opportunity cost in the production of good X.
C. Country A gains through importing good Y from country B if the terms of trade is $1X = 1.5Y$.
D. Both countries will not trade with each other if the terms of trade is $1X = 2Y$.

361

1997/AL/11/17

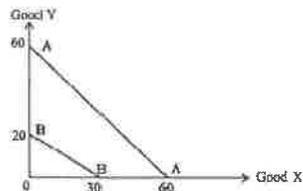


If CD is the production possibility frontier of both countries A and B, then

- (1) neither country has an absolute advantage in the production of food.
- (2) neither country has a comparative advantage in the production of food.
- (3) the domestic exchange ratio between food and houses will be 1 : 1 for both countries.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1998/AL/11/18



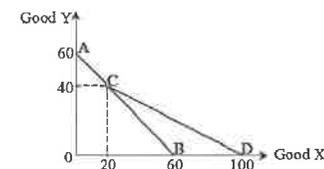
In the above diagram, AA and BB are the production-possibility frontiers of Country A and B, respectively. Which of the following statements must be true?

- (1) Country A will not trade with Country B.
- (2) Country A has a comparative advantage in the production of good Y.
- (3) Country A has an absolute advantage over Country B in the production of both good X and Good Y.

- A. (1) only
- B. (2) only
- C. (1) and (2) only
- D. (2) and (3) only

1999/AL/11/19

Consider the diagram below for an economy that has just opened itself up to trade with the outside world. AB shows the pre-trade consumption possibility curve while CD shows the post-trade consumption possibility curve. Which of the following is correct?



- A. Trade enables the country to increase the production of good X along CD.
- B. The opportunity cost of producing each unit of good Y is more than two units of good X for the trading partner of this country.
- C. The country has a comparative advantage over its trading partner in the production of good X.
- D. None of the above.

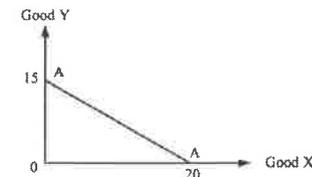
2001/AL/11/20

Country A uses labour only to produce good X and Y. The labour requirements for each unit of X and Y are 0.5 and 2 respectively. Without international trade, Country A consumes 50 units of X and 50 units of Y. Suppose the terms of trade is 1, which of the following statements are correct?

- (1) With international trade, Country A will produce more good Y.
- (2) With international trade, Country A will increase its consumption of good X.
- (3) With international trade, Country A will increase its consumption of good Y.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

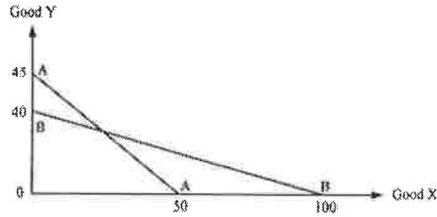
2001/AL/11/21



In the above diagram, AA is the production possibility frontier of country A. Suppose the terms of trade is 1. The net gain of country A for each unit of its import is _____ unit of good X.

- A. 1/6
- B. 1/5
- C. 1/4
- D. 1/3

2001/AL/11/26

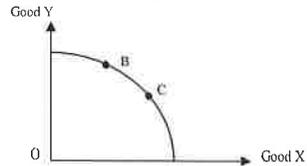


In the above diagram, AA and BB represent the production possibility frontiers of Country A and Country B respectively. Which of the following is correct?

- A. Country A has an absolute advantage in the production of Good Y.
- B. Country B has a comparative advantage in the production of Good X because it can produce more Good X than Country A.
- C. They will not trade with each other if the terms of trade is 1.
- D. None of the above.

2002/AL/1/24

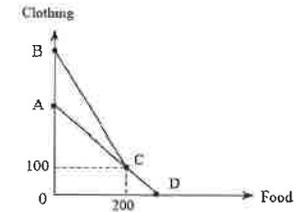
Refer to the production possibility curve of country A below.



Country A's production point will move from B to C when

- A. the relative price of Good X increases.
- B. the relative price of Good Y increases.
- C. there is a change in the amount of resources available.
- D. there is a change in technology.

Refer to the following diagram and answer questions 27 and 28.



2002/AL/11/27

In the above diagram, ACD is the production possibility frontier of Country Y while BCD is its consumption possibility frontier with international trade. With international trade, the production point for Country X is:

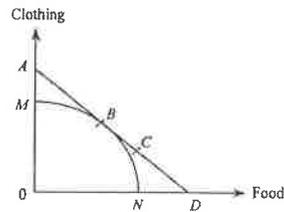
- A. A
- B. B
- C. C
- D. D

2002/AL/11/28

Suppose the value of A and B in the above diagram is 300 and 500 respectively. With international trade,

- A. Country X must be consuming more clothing than it did before trade.
- B. Country X gains 1 unit of food per unit of clothing traded.
- C. the value of D is 600.
- D. the terms of trade is 1 unit of food for 2 units of clothing.

Refer to the following diagram and answer Questions 24 and 25. MBN is the production possibility frontier of Country S. With international trade, the production point and the consumption point of Country X are B and C respectively.



2003/AL/11/24

The terms of trade is measured by

- A. OD/OA
- B. ON/OM
- C. AB/BD
- D. AB/AD

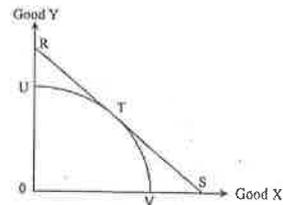
2003/AL/11/25

Without international trade, the consumption point of Country X will lie on

- A. MB
- B. BN
- C. AB
- D. BC

2005/AL/11/27

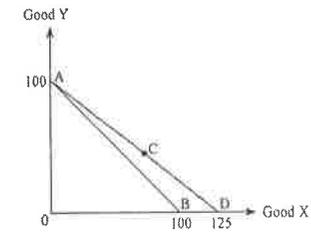
In the following diagram, UTV is the production possibility curve of a country for two goods X and Y. The point T is the pre-trade equilibrium position. The slope of the line RTS is 1.



When international trade, at a price of 3 units of X per unit of Y, the country will export _____ and gain _____ for each unit of its imports.

- A. X 2 units of X
- B. X $2/3$ units of X
- C. Y 2 units of Y
- D. Y $2/3$ units of Y

Study the following diagram and answer Questions 26 and 27.



AB is the consumption possibility frontier of a country when there is no trade. When the country trades with the outside world, its consumption possibility frontier is AD and its consumption point is C .

2006/AL/11/26

Which of the following statements is correct?

- A. The production possibility frontier of the country is AD with international trade.
- B. With international trade, the country may produce both Good X and Good Y.
- C. The country may consume less Good Y with international trade than without.
- D. The trading partners of the country have an absolute advantage in the production of Good X.

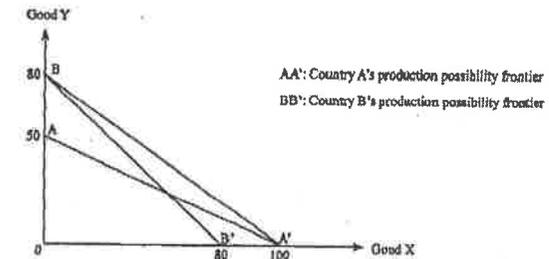
2006/AL/11/27

In trading with other countries, the country will gain _____ per unit of export.

- A. 0.2 units of Good X
- B. 0.2 units of Good Y
- C. 0.25 units of Good X
- D. 0.25 units of Good Y

2007/AL/11/24

The diagram below shows the production possibility frontiers of Country A and Country B.

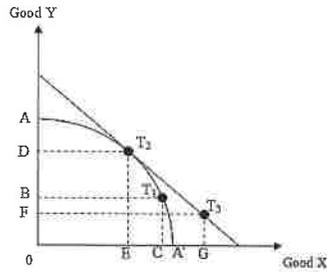


Suppose the terms of trade between the two countries is $1X = 0.8Y$. Which of the following is correct?

- A. $A'B$ is the consumption possibility frontier for both countries when they trade.
- B. Both countries will consume more of both goods after trade.
- C. Country A enjoys absolute advantage in the production of Good X.
- D. Country A's opportunity cost of producing Good Y decreases when the two countries trade.

2008/AL/11/24

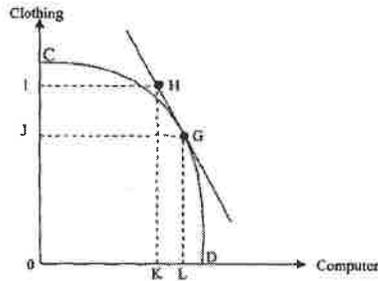
The diagram below shows the production possibility frontiers (AA') of Country A. T₁ is the pre-trade consumption point. When Country A trades with the rest of the world, its production point and consumption point are T₂ and T₃ respectively.



Based on the above diagram, we can conclude that

- A. Country A has an absolute advantage in producing good Y.
- B. Country A has a comparative advantage in producing good X.
- C. the world price of good X is DF/EG.
- D. the world price of good X is DB/EC.

Refer to the following diagram and answer Questions 23 and 24. CD is the production possibility frontier of a country and H is its consumption point with international trade.



2009/AL/11/23

Which of the following statements about the country is correct?

- A. It imports clothing from other countries.
- B. It has an absolute advantage in producing clothing.
- C. It uses all its resources to produce computers.
- D. It gains more than other countries from international trade.

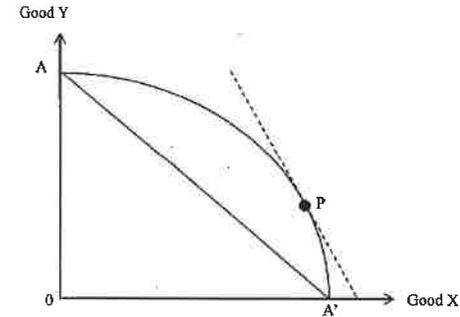
2009/AL/11/24

The terms of trade of the country is measured by _____.

- A. IJ/JG
- B. JG/IJ
- C. IJ/KL
- D. GL/LD

2010/AL/11/24

Refer to the following diagram.

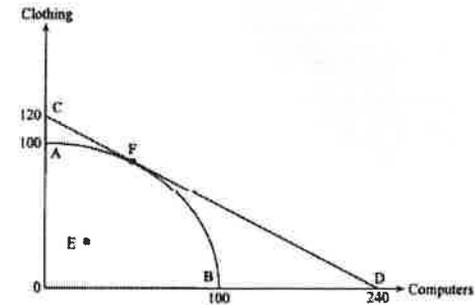


Arc AA' is the production possibility curve of a small country. The country produces at point P in the absence of trade. Suppose the straight line AA' represents the terms of trade, which of the following statements is correct?

- A. The country will import good Y.
- B. The country will export good Y.
- C. The country will not trade with the rest of the world.
- D. The country will consume more good X and good Y after trade.

2011/AL/11/25

AB and CD are the production possibility curves of Country X and Country Y respectively.



Which of the following statements about Country X and Country Y is/are correct?

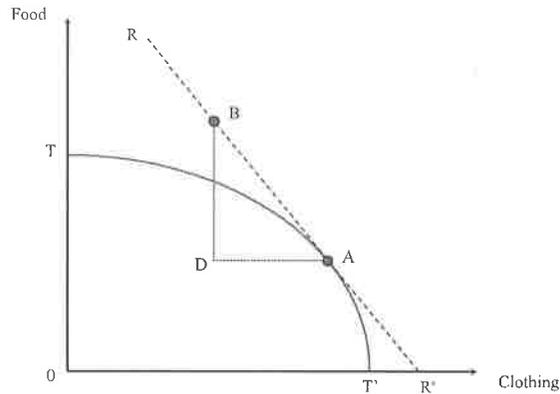
- (1) Country X enjoys a comparative advantage in producing clothing.
- (2) Country Y enjoys an absolute advantage in producing computers.
- (3) At point E, both countries can produce more computers without reducing the production of clothing.

- A. (3) only
- B. (1) and (2) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1991/AL/II/3

An economy not engaged in trade can produce and consume anywhere along its production possibility boundary TT' . With free-trade prices shown by the slope of lines RR' , production takes place at A and consumption at B . The economy exports DA units of clothing to obtain BD units of food.



With the aid of the diagram provided, show the new consumption pattern and the trade situation after a fire destroyed quantity DA units of its clothing. (10 marks)

1997/AL/II/8

The following table shows the amount of labour required in the production of one unit of Good X and one unit of Good Y in Country A.

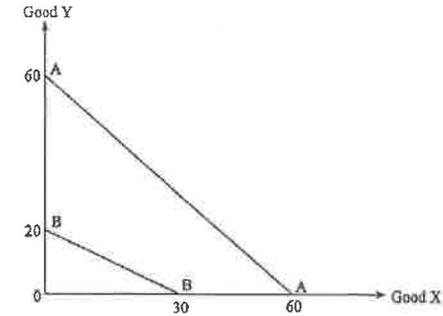
Country A	Good X	Good Y
	1	3

Suppose Country A has L units of labour and the terms of trade are 1.

- Construct the production possibility frontier of Country A. What good will Country A export? (2 marks)
- Suppose there is technical progress in the production of Good Y in Country A. Explain with the aid of a diagram how each of the following situations affect the trade pattern and the welfare of Country A.
 - The labour requirement in the production of one unit of Good Y is 2.
 - The labour requirement in the production of one unit of Good Y is 0.5. (8 marks)

2012/DSE/II/15

In the diagram below, AA' and BB' are the production-possibility frontiers of Country A and Country B respectively.



- Which country has a comparative advantage in producing Good X? Explain. (4 marks)
 - Is mutually beneficial trade possible between these two countries? Explain. (4 marks)
- If the terms of trade is 10 units of X in exchange for 8 units of Y, what will be the gain from trade per unit of X traded for each country? (4 marks)

2013/DSE/II/14(a)

Country A requires 1 unit of labour to produce a unit of Good X and 2.5 units of labour to produce a unit of Good Y. Suppose labour is the only resource required for production. Country A is endowed with 10 units of labour and the terms of trade is $1X = 1Y$.

- (i) Explain which good Country A will import.
- (ii) Construct the production possibilities frontier and consumption possibilities frontier of Country A in Figure 3 (4 marks)

Suppose the labour force of Country A increases by 10 units.

- (iii) Will the direction of trade be affected? Will Country A be better off as a result? Explain your answers with the aid of Figure 3. (6 marks)

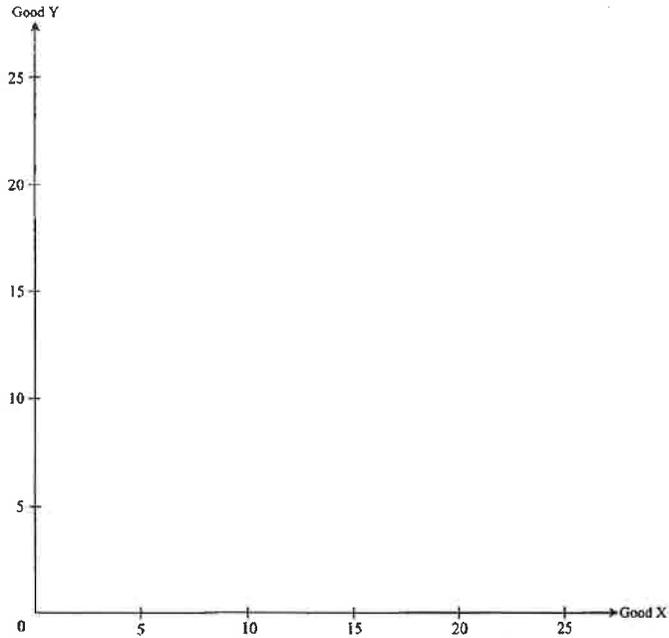


Figure 3

2014/DSE/II/14

Figure 4 shows the production possibility frontiers (PPF) of Country A and Country B. Suppose the amount of resources of Country A doubles that of Country B in the production of Good X and Good Y. Both countries allocate their resources evenly in the production of Good X and Good Y.

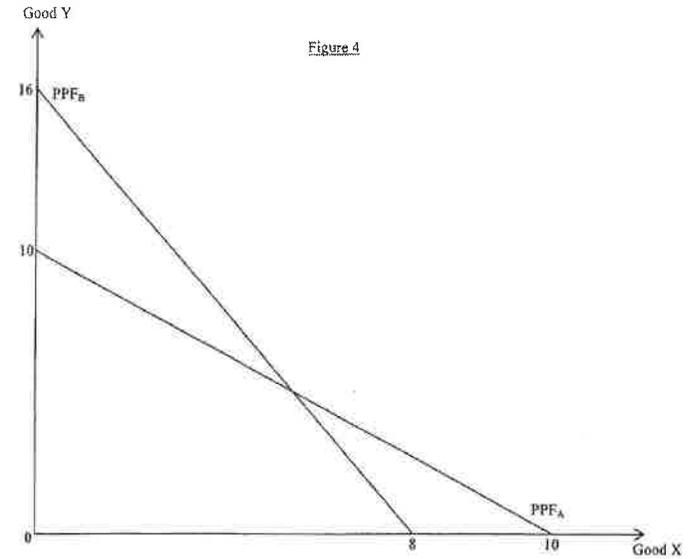
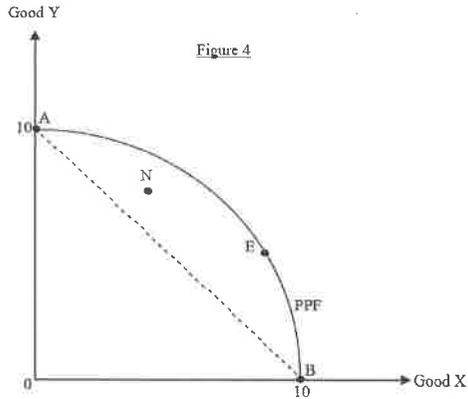


Figure 4

- (a) Explain why the production possibility frontiers of Country A and Country B are straight lines. (2 marks)
- (b) Explain whether Country A enjoys
 - (i) an absolute advantage in producing Good X.
 - (ii) a comparative advantage in producing Good X. (5 marks)
- (c) Suppose the international price of a unit of Good X is 1.5 units of Good Y. Show on Figure 4:
 - (i) The production point of Country A after specialization.
 - (ii) The consumption possibility frontier (CPF) of Country A when there is trade.
 - (iii) The consumption point of Country A if 4 units of Good X are traded. (5 marks)

2015/DSE/II/14

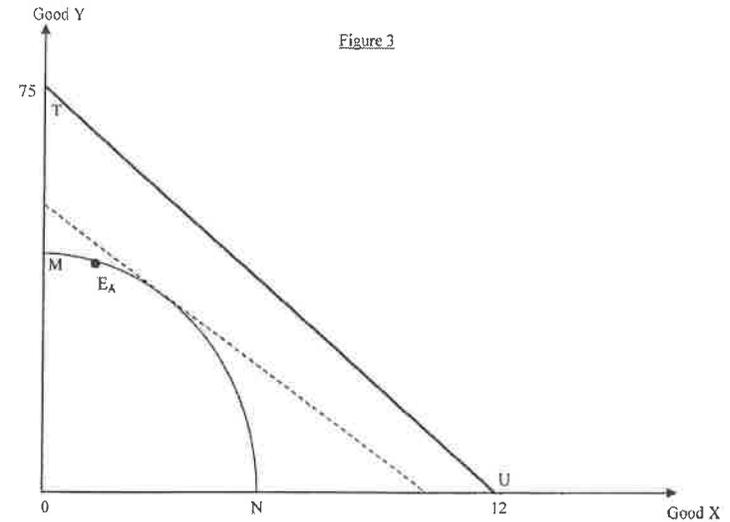
In Figure 4, PPF is a country's production possibility frontier where E is the production point without trade. At point E, the domestic cost of production of one unit of good X is 2.5 units of good Y.



- (a) Explain whether the country would produce at point N. (2 marks)
- (b) The slope of dotted line AB is the world price of good X. Explain whether the country has a comparative advantage in producing good X. (3 marks)
- (c) Suppose the country engages in international trade. Indicate its production point after trade and its consumption possibility frontier in Figure 4. (3 marks)
- (d) With the aid of Figure 4, explain whether the country will gain from trade. (3 marks)

2016/DSE/II/15

In Figure 3, MN and TU are the production possibility frontiers of Country A and Country B respectively.



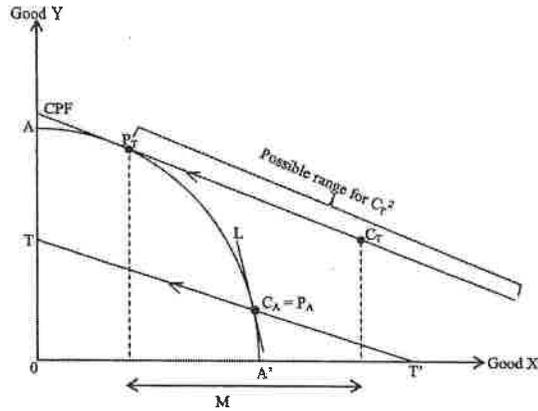
- (a) Explain why the production possibility frontier of Country A is concave to the origin. (1 mark)

The production point of Country A without trade is E_A , at which the domestic cost of production of 1 unit of Good X is 4 units of Good Y.

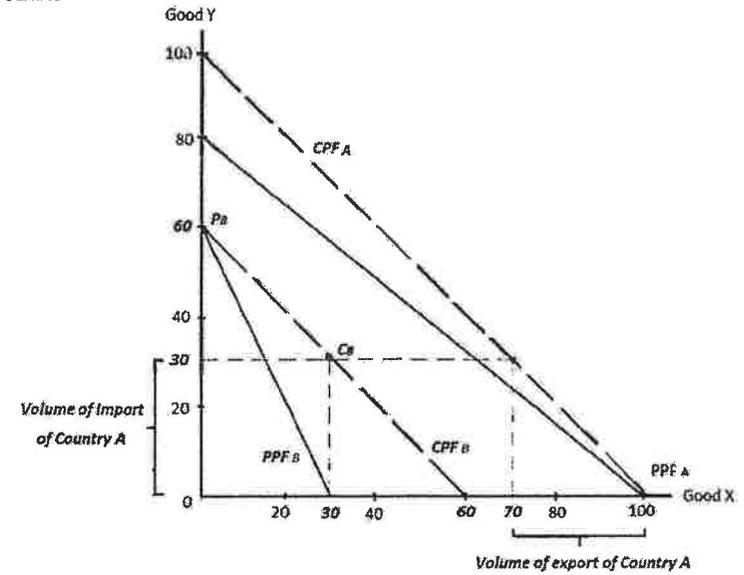
- (b) With reference to the domestic cost of production in both countries, explain in which good Country A has a comparative advantage. (3 marks)

Suppose the slope of the dotted line is the world price of Good X.

- (c) Indicate in Figure 3:
- the production point of Country A after trade as P_A ,
 - the consumption point of Country A as C_A given that Country A consumes the **SAME** amount of Good X after trade, and
 - the volume of import and the volume of export of Country A.
- (4 marks)
- (d) Country B has a technological improvement which helps double its productivity on Good X and Good Y. Explain whether the answer in part (b) will change. (2 marks)



- (a) (i) Without trade, Country A can only consume its own production. (1)
Illustrated in the diagram:
 - correct position of $C_A = P_A$ (1)
- (ii) Slope of L is the marginal cost of Good X. (1)
 L is steeper than TT' . (1)
 That means marginal cost of producing Good X is higher than the world price of Good X. (1)
 So Country A did not have a comparative advantage in producing Good X. (1)
 (max: 3)
- Illustrated in the diagram:
 - correct position of the straight line (L) (1)
- (b) (i) Country A would produce at P_T where $TOT =$ domestic marginal cost of production. (1)
Illustrated in the diagram:
 - correct position of P_T (1)
 - correct position of CPF (1)
- (ii) Country A can consume at a point which is unattainable from local production before trade. (1)
Illustrated in the diagram:
 - correct position of C_T (1)
- (ii) Illustrated in the diagram:
 - correct position of M (1)



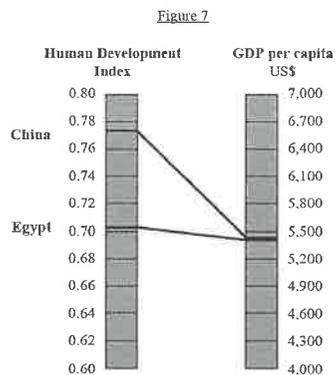
- (a) Illustrated in the diagram.
 - correct position of production possibility frontier of Country B (PPF_B) (1)
- (b) Country A has absolute advantage in producing Good X, because (1)
 with the same amount of resources (30 units), Country A can produce a larger quantity of Good X (60 units) than Country B (30 units)
OR
 with the same amount of resources (50 units), Country A can produce a larger quantity of Good X (100 units) than Country B (50 units).
OR
 Country A can produce 1 unit of X with fewer units of resources (0.5 units of resources) than Country B (1 unit of resources). (2)
- (c) Illustrated in the diagram.
 (i) - correct position of production point of Country B (P_B) (1)
 (ii) - correct position of consumption possibility frontier of Country B (CPF_B) (1)
 - correct position of consumption point of Country B after trade (C_B) (1)
 (iii) - correct position of consumption possibility frontier of Country A (CPF_A) (1)
 - correct position of volume of import of Country A (1)
 - correct position of volume of export of Country A (1)

9.2 ECONOMIC DEVELOPMENT

Short & Structured Questions

PP/DSE/II/16(b)

Figure 7 shows the Human Development Index and GDP per capita of China and Egypt in 2009.



- (i) Suggest **TWO** reasons to explain why China has a significantly higher Human Development Index despite having a similar GDP per capita to Egypt. (4 marks)
- (ii) The GDP per capita of China increased sharply in the last decade. Explain with **TWO** reasons why the increase in the GDP per capita may overstate the improvement of general living standard. (4 marks)

2012/DSE/II/15(d)

The Human Development Index (HDI) of Country B increases after trade.

- (i) What does HDI measure?
- (ii) Suggest **ONE** possible reason for such an increase. (4 marks)

2013/DSE/II/14(b)

Refer to the following information about Hong Kong and Japan in 2011 and answer the following questions.

	Human Development Index rank	Gross National Income per capita rank MINUS HDI rank
Japan	12	11
Hong Kong	13	-4

- (i) Which place had a higher Gross National Income per capita in 2011? Show your workings.
- (ii) State **TWO** possible reasons why Japan had a higher HDI rank than Hong Kong in 2011.
- (iii) Suggest **ONE** government policy that could raise Hong Kong's HDI rank. (6 marks)

2014/DSE/II/14(d)

The production possibility frontier of Country A has shifted out due to changes in government policies on human capital. Suggest **TWO** such possible policy changes in Country A. (4 marks)

2015/DSE/II/14(e)

After the country's opening up for trade, its Human Development Index (HDI) has risen.

- (i) Give **ONE** reason why international trade can lead to a rise in HDI. (1 mark)
- (ii) Despite the rise in HDI, the residents in the country generally agree that the living standard has declined. Suggest **TWO** possible reasons to explain their view. (4 marks)

2016/DSE/II/15(e)

The census statistics report of Country A warns that the country would suffer from brain drain, i.e. many residents with a high education level migrate to other countries.

- (i) Explain **TWO** effects of brain drain on the economic growth of Country A. (4 marks)
- (ii) In the light of globalisation, suggest **ONE** policy the government of Country A could adopt to relieve the problem. Briefly explain your answer. (2 marks)

2017/DSE/II/15(c)

The following table shows some data of Country A. Country A opened up to international trade after 2000.

Year	1990	2000	2010
Per-capita real GDP (in US\$)	2 950	3 000	3 600
Human development index (HDI)	0.67	0.68	0.68

With reference to the above table, explain how international trade affects

- (i) the economic growth of Country A. (2 marks)
- (ii) the economic development of Country A. (2 marks)

2018/DSE/II/15(d)

Explain whether the following policies would result in an increase in a country's Human Development Index (HDI).

- (i) The government closes down environmentally harmful power plants and factories. (3 marks)
- (ii) The government grants citizenship to all illegal immigrants so that they can stay and work in the country legally. (3 marks)

MARKING SCHEME

PP/DSE/II/16(b)

- (i) - Longer life expectancy
- Higher literacy rate
- (ii) - Income is less evenly distributed.
- A larger proportion of total output consists of national defence and capital goods.
- There are more problems of pollution.
- The people enjoy less leisure.
- There are fewer non-marketed / unreported goods. (2@, max: 4)
[Mark the **FIRST TWO** points only.]

2012/DSE/II/15(d)

- (i) HDI measures the level of economic and social development of a country in 3 dimensions: health (measured by life expectancy at birth), education (measured by mean years of schooling and expected years of schooling) and living standard (measured by Gross National Income per capita) (2)
- (ii) More production, business activities and employment opportunities in the import-export industry lead to higher per capita GDP.
OR
Foreign health product or technology imported lead to better health (2)

2013/DSE/II/14(b)

- (i) Hong Kong.
HK: GNI per capita rank - HDI rank = -4
Given HDI rank = 13, GNI per capita rank = 9
Japan: GNI per capita rank - HDI rank = 11
Given HDI rank = 12, GNI per capita rank = 23 (2)
- (ii) Japanese have longer years of schooling on average. (1)
Japanese have a longer life expectancy on average. (1)
- (iii) Any example of policy that can enhance the education level or health condition of Hong Kong people. E.g., increase government subsidy on tertiary education. (2)

2014/DSE/II/14(d)

- tax allowance for further education (or education subsidy)
 - teaching grants -- to universities for more degree programmes
 - bigger immigration quota for experts and professionals
- [Mark the **FIRST TWO** points only.]

2015/DSE/II/14(e)

- (i) GDP may increase because of trade-induced transfer of superior technology from its trading partners, resulting in an increase in productivity.
OR
Exchange in health technology may increase life expectancy. (1)
- (ii) - Workers in import-substitute industries may suffer unemployment
- Income distribution may become more uneven
- Pollution may increase (due to specialization in producing more "polluted" goods) (2@, max: 4)
[Mark the **FIRST TWO** points only.]

2016/DSE/II/15(e)

- (i) - lower per-capita GDP
- lower human capital / labour productivity
- lower marginal productivity of capital (due to complementarity of labour and capital)
- slower research and development (2@, max: 4)
[Mark the **FIRST TWO** points only.]
- (ii) - importation of high-skilled labour
- scholarships to attract higher-quality overseas students
- relaxation of immigration policy to target the smarter brains
- introduction of return migration policy (2@, max: 2)
[Mark the **FIRST** point only.]

2017/DSE/II/15(c)

- (i) Enhanced economic growth (as shown by higher levels or positive rates of growth) of per-capita real GDP because external trade could increase aggregate demand (through exports) and hence real GDP. (1)
- (ii) No change in economic development (as reflected by the same level of HDI) because more people may leave school earlier in order to take part in trading activities, thus decreasing the average number of years of schooling, while GDP rises as a result of trade. (1)
OR
pollution (as a by-product) may become more serious as production is increased after trade / new disease or virus brought in by foreigners may shorten the life expectancy at birth of the local people. (1)

2018/DSE/II/15(d)

- (i) Uncertain, because per capita GNI would fall while life expectancy may rise. (1)
OR
No, because the effect on life expectancy would become significant only in the long term, so that the (immediate) GNI effect should dominate in the current period. (2)
- (ii) Uncertain, because while per capita GNI may increase, average year of schooling and/or average life expectancy may drop. (2)