

24. Study the following data of an economy.

Components	\$ million
Private consumption expenditure	500
Gross domestic fixed capital formation	260
Decrease in stock	120
Government consumption expenditure	470
Total exports of goods	380
Re-exports of goods	140
Total imports of goods	220
Net exports of services	730
Depreciation	90
Indirect taxes	75

The gross domestic product (GDP) at factor cost is \$ _____ million.

- A. 1925
- B. 2065
- C. 2075
- D. 2165

25. The following table shows some data of a country.

Year	Growth rate	
	2019	2020
Nominal GDP	0.3%	-5.5%
Price level	2.0%	0.6%
Population	0.5%	-1.2%

Which of the following statements is correct?

- A. Real GDP in 2020 increased.
- B. Per capita nominal GDP in 2020 increased.
- C. There was deflation in 2020.
- D. The growth rate of real GDP in 2020 was smaller than that in 2019.

27. Which of the following would be deducted from the GDP of Hong Kong to calculate the gross national income (GNI) of Hong Kong?

- A. the salary received by a Hong Kong professor who worked in a university in Japan on a permanent contract
- B. the dividend earned by a Filipino billionaire from his holding of shares of a Hong Kong company
- C. the salary received by an Indonesian domestic worker who worked for a Hong Kong family for two years
- D. the rental income earned from a residential property in the United Kingdom owned by a Hong Kong resident

3. Refer to the following data about Country A.

Year	2019	2020
Per capita disposable income	\$15 000	\$20 000
Gini coefficient (based on household income)	0.51	0.56
Gini coefficient (based on household disposable income)	0.51	0.44

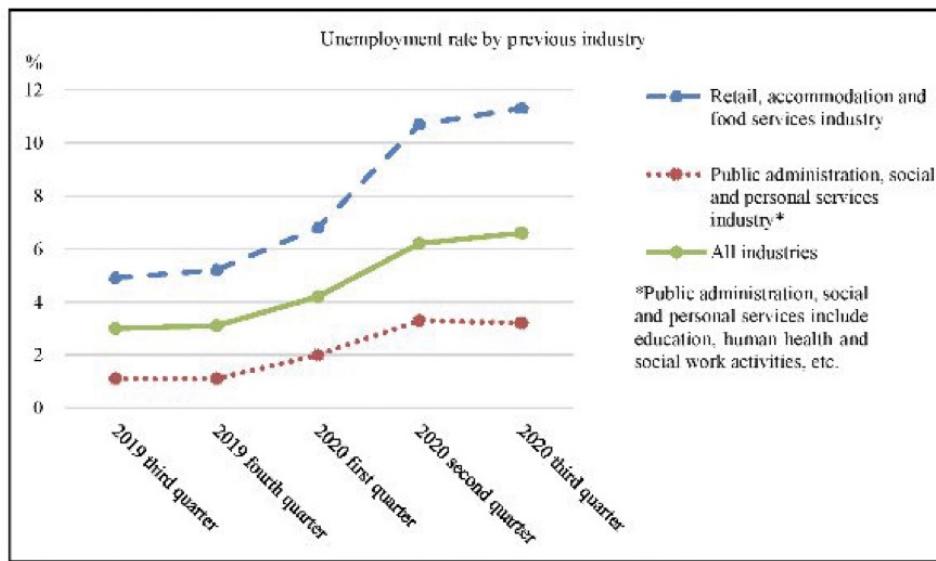
(a) State **TWO** reasons to explain why the increase in per capita disposable income may lead to an over-estimation of the improvement in living standard of Country A. (2 marks)

(b) Based on household disposable income, did income inequality of Country A improve or worsen in 2020? Suggest **ONE** policy which may have caused such a change. (2 marks)

2022

11. The Government launched the Consumption Voucher Scheme in 2021 to relieve the impact of COVID-19 on the Hong Kong economy.

Source A: Statistical data about unemployment rate in Hong Kong



Source B: An extract of information about the Consumption Voucher Scheme

All Hong Kong permanent residents and new arrivals aged 18 or above, who comply with the 'residing in Hong Kong' requirement, could register to receive electronic consumption vouchers with a total value of \$5 000 by instalments.

Source C: Information about the four designated stored value facilities to receive the \$5 000 consumption vouchers by instalments

	AlipayHK	Octopus	Tap & Go	WeChat Pay HK
Public transportation with the above payment facilities installed	MTR, bus, mini bus and ferry	MTR, bus, mini bus and ferry	Bus and mini bus	None
Promotions to consumption voucher users	5 e-coupons	First 2 million registered customers enjoy \$18 of stored value	\$50 awarded when using virtual Tap & Go Unionpay card for the first transaction with an amount equal to or larger than \$50	e-coupons

Source D: Some reminders for the Consumption Voucher Scheme

- Consumption vouchers cannot be used in transactions such as payments to the government (e.g. tax), public utilities (e.g. electricity charges), purchase of financial products (e.g. insurance), and direct purchase from merchants located outside Hong Kong.
- There are deadlines for using consumption vouchers.

Source E: Some views on the Consumption Voucher Scheme in Hong Kong

A housewife	I have spent more than \$5 000 as there are e-coupons from the stored value facility provider. A lot of promotions in large retail chains and malls have also tempted me to consume!
A former chef in a restaurant	I have been laid off and have stayed home for months. No one knows when the travellers would be back. I hope that the Consumption Voucher Scheme will bring more local people to spend on food and beverage and the whole industry can survive the pandemic. Otherwise, many workers will be forced to leave the industry.
A doctor working in a public hospital	Resources should be allocated to the medical sector, instead of giving everyone an equal amount under the Consumption Voucher Scheme. The public hospitals lacked space, manpower and equipment even before the pandemic. Start building new hospitals earlier so that more lives could be saved.

(a) Refer to Source A.

(i) In which phase of business cycle the Hong Kong economy most likely was? Apart from the change in unemployment rate, list ONE other economic phenomenon of this phase. (2 marks)

(ii) Why did the unemployment rate of retail, accommodation and food services industry increase faster than that of public administration, social and personal services industry during the pandemic? (2 marks)

(b) Refer to Source B. Would the \$5 000 distributed under the Consumption Voucher Scheme be included in the calculation of government consumption expenditure? Explain your answer. (2 marks)

(c) Based on the information given in Source C, explain with TWO reasons why the market of stored value facilities in Hong Kong is NOT perfectly competitive. (4 marks)

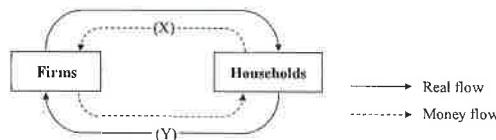
(d) Refer to Source D. Some citizens claimed, 'I would rather receive \$5 000 cash instead of consumption vouchers.' In terms of functions of money, explain such a claim with TWO reasons. (4 marks)

SECTION 1: NATIONAL INCOME

1.1 CIRCULAR FLOWS

Multiple Choice Questions

1990/CE/II/35



X and Y in the above circular flow of economic activities should be labeled respectively as

- A. sales revenue; factor services.
- B. sales revenue; goods and services.
- C. factor income; goods and services.
- D. factor income; factor services.

1990/CE/II/57

Which of the following is a 'stock' concept?

- A. Amy earns a monthly income of \$3 000.
- B. Mr Wong consumes three cups of coffee per day.
- C. The government spent \$1 billion on social services last year.
- D. Peter had \$1 million in his savings account at the end of last year.

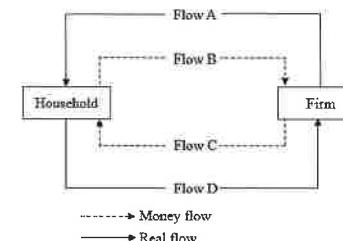
1991/CE/II/42

Which of the following are classified as 'flows'?

- (1) bank deposits
- (2) the imports of Hong Kong
- (3) rental income
- (4) the inventory of a department store

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1991/CE/II/47



When economist calculate a country's national income by the income approach, they measure _____ in the above chart.

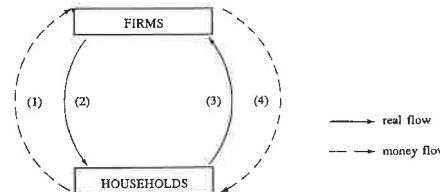
- A. Flow A
- B. Flow B
- C. Flow C
- D. Flow D

1992/CE/II/44

Which of the following are 'stock' concepts?

- A. The balance in a savings account as at December 31, 1991.
- B. Hong Kong's balance of payments.
- C. Hong Kong's GDP.
- D. Hong Kong's total exports.

1993/CE/II/37

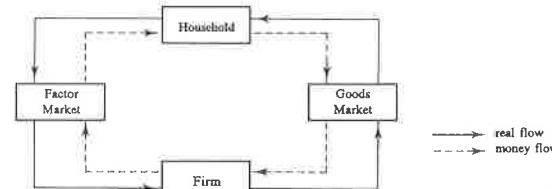


The diagram above shows the circular flow of economic activities. The economy's expenditure and income are shown in Flow _____ and Flow _____ respectively.

- A. (1); (2)
- B. (1); (4)
- C. (2); (3)
- D. (3); (4)

1994/CE/II/31

Macroeconomics by Topic
I. National Income

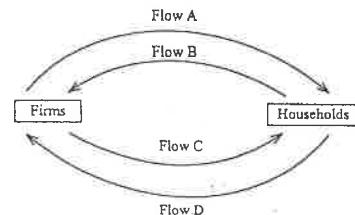


What does the above diagram show?

- A. Economic activities take place in an open economy.
- B. There is government intervention in the economy.
- C. National income equals national expenditure.
- D. Households conduct transactions in the goods market only.

2002/CE/II/24

Refer to the circular flows below:



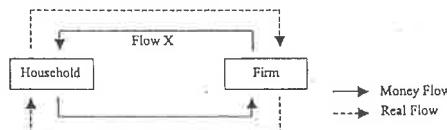
Flow A, Flow D: real flows
Flow B, Flow C: money flows

What of the following statements is correct?

- A. Flows A and D are flows of households' expenditure and firms' payment to factor owners respectively.
- B. All value-added totals contributed by the firms equal the market value of all final goods and services.
- C. The market value of Flow B equals the market value of all final goods and services plus the market value of unsold goods.
- D. The flow of final goods and services includes self-provided services.

2003/CE/II/25

Refer to the following circular flow of an economy:



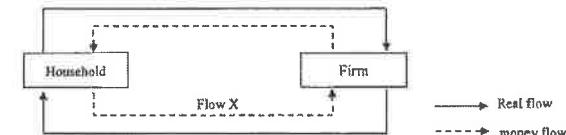
Which of the following is included in Flow X?

- A. household expenditure on final goods and services
- B. factor income such as rent and wages
- C. value of intermediate goods
- D. market value of all final goods and services

Macroeconomics by Topic
I. National Income

2009/CE/II/26

Refer to the following circular flow of Economy A:



Flow X represents

- A. the total expenditures on all final goods and services.
- B. the total income earned by households from their factor services.
- C. the total value of factor services provided by households to firms.
- D. the total market value of all intermediate and final goods and services.

MARKING SCHEME

1990/CE/II/35 A	1991/CE/II/42 C	1992/CE/II/44 A	1994/CE/II/31 C	2003/CE/II/25 B (62%)
1990/CE/II/57 D	1991/CE/II/47 C	1993/CE/II/37 B	2002/CE/II/24 B (48%)	2009/CE/II/26 A (68%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1.2 EXPENDITURE APPROACH

Multiple Choice Questions

1990/CE/II/33

A Hong Kong citizen switches his flight from a local airline to Japan Airlines. What is the effect on Hong Kong's Gross Domestic Product (GDP)?

- A. an increase in imports
- B. a decrease in exports
- C. a decrease in consumption
- D. an increase in investment

1993/CE/II/39

	\$ million
Private consumption expenditure	40
Government consumption expenditure	10
Gross domestic fixed capital formation	10
Change in stocks	1
Total exports of goods	80
Domestic exports	70
Re-exports	10
Imports of goods	60
Exports of services	20
Imports of services	30
Inflow of capital	30
Outflow of capital	15

The GDP of the economy in that year is

- A. \$61 million.
- B. \$70 million.
- C. \$71 million.
- D. \$81 million.

1993/CE/II/51

An increase in exports and a decrease in imports will cause the national income to

- A. increase
- B. decrease
- C. remain unchanged
- D. either increase or decrease

1996/CE/II/28

In using the expenditure approach to calculate the Gross National Product (GNP) of an economy, imports should be deducted because:

- A. Some imports are substitutes of domestic products.
- B. Some imports are intermediate goods.
- C. Imports will lead to payments to foreign countries.
- D. Imports are the expenditure on goods and services produced by foreign countries.

1996/CE/II/30

Refer to the following information about an economy

GNP at market price	\$100
Exports of goods and services	20
Imports of goods and services	30
Net income from abroad	-5
Indirect taxes	25
Subsidies	35
Depreciation	5

The GDP at factor cost is:

- A. \$95
- B. \$105
- C. \$115
- D. \$125

1998/CE/II/30

Answer Question 30 by referring to the following data of an economy:

	\$Mn
Gross national product at market price	46
Change in stock	3
Net income from abroad	1
Subsidies	4
Depreciation	5
Indirect business tax	6
Net exports	2

The gross national product at factor cost (in \$Mn) is

- A. 39.
- B. 43.
- C. 44.
- D. 47.

2001/CE/II/28

The following table shows the gross domestic product (GDP) data of a country.

	\$Mn
Private consumption expenditure	500
Government consumption expenditure	100
Net domestic fixed capital formation	250
Changes in inventories	30
Total exports of goods	800
Re-exports of goods	200
Imports of goods	900
Exports of services	300
Imports of services	150
Depreciation	60

The GDP at market price is

- A. \$900 million.
- B. \$930 million.
- C. \$990 million.
- D. \$1 190 million.

2003/CE/II/26

The following table shows the gross domestic product (GDP) data of a country in a certain year.

	\$ Million
Private consumption expenditure	400
Government consumption expenditure	100
Gross domestic fixed capital formation	200
Reduction in inventory	20
Domestic exports of goods	330
Re-exports of goods	170
Imports of goods	550
Exports of services	400
Imports of services	350
Depreciation allowance	60

The GDP at market price is

- A. \$620 million.
B. \$660 million.
C. \$680 million.
D. \$720 million.

2004/CE/II/29

The introduction of the 'individual visit' (個人遊) scheme for Mainland visitors to HK would increase the GDP of HK. The spending of these visitors on jewellery in HK is a/an _____ of HK.

- A. consumption expenditure
B. investment expenditure
C. export
D. import

2005/CE/II/27

The following table shows the statistical data of an economy in a certain year.

	Million Dollars
Private consumption expenditure	50 000
Government consumption expenditure	8 000
Gross domestic fixed capital formation	7 000
Decrease in inventory	3 000
Total export	30 000
Total import	45 000
Indirect taxes	50
Depreciation allowance	4 200

The GDP at market price (in million dollars) is

- A. 42 850.
B. 47 000.
C. 50 000.
D. 51 150.

Macroeconomics by Topic
I. National Income

Macroeconomics by Topic
I. National Income

2006/CE/II/28

The following table shows the statistical data of an economy.

Components	\$Million
Private consumption expenditure	200
Government consumption expenditure	150
Net domestic fixed capital formation	300
Decrease in stock	70
Subsidies	120
Depreciation	50
Net exports	300
Net income from abroad	80
Direct tax	100

The GDP at factor cost (in \$mn) is

- A. 950.
B. 970.
C. 1 050.
D. 1 190.

2008/CE/II/26

The following table shows the national income statistics of an economy.

Components	\$Million
Private consumption expenditure	800
Government consumption expenditure	250
Gross domestic fixed capital formation	600
Decrease in inventories	50
Total export of goods	1 700
Total import of goods	450
Export of services	850
Import of services	550

The gross domestic product (GDP) at market price is \$ _____ million.

- A. 3 100
B. 3 150
C. 3 200
D. 3 250

2009/CE/II/28

The following table shows the statistical data on an economy.

Components	\$ million
Private consumption expenditure	600
Net domestic fixed capital formation	250
Increase in stock	70
Government consumption expenditure	450
Depreciation	30
Total exports of goods and services	500
Total imports of goods and services	140
Re-exports of goods	100

The GDP at market price is \$ _____ million.

- A. 1 690
B. 1 730
C. 1 760
D. 1 830

Study the following table and answer questions 26 and 27

Macroeconomics by Topic
I. National Income

GDP Items	\$ billion
Private consumption expenditure	100
Gross domestic fixed capital formation	200
Changes in inventories	-50
Depreciation	10
Government consumption expenditure	150
Transfer payments	20
Indirect taxes	100
Subsidies	40
Net exports of goods and services	-15

2010/CE/II/26

The GDP at market price is \$ _____ billion.

- A. 375 B. 385
C. 395 D. 445

2010/CE/II/27

The GDP at factor cost is \$ _____ billion.

- A. 315 B. 325
C. 375 D. 445

2012/DSE/I/22

Refer to the following table.

Gross Domestic Product (GDP) Components	\$ million
Private consumption expenditure	200
Net domestic fixed capital formation	40
Increase in inventory	x
Government consumption expenditure	24
Net exports	10
Indirect taxes	60
Subsidies	30
Depreciation	40
Net factor income from abroad	16

If the GDP at factor cost is \$264 million, the value of x is _____.

- A. -50 B. -20
C. 20 D. 50

Macroeconomics by Topic
I. National Income

2013/DSE/I/22

Consider the following Gross Domestic Product (GDP) data about a country.

Components	\$ million
GDP at market price	200
Private consumption expenditure	120
Gross domestic fixed capital formation	40
Change in inventories	10
Total exports of goods	80
Domestic exports of goods	70
Imports of goods	60
Exports of services	20
Imports of services	30
Net income from abroad	25
Depreciation	35
Indirect business tax	28
Subsidies	18

The government consumption expenditure for that year is \$ _____ million.

- A. 20 B. 30
C. 40 D. 50

2016/DSE/I/23

Consider the following Gross Domestic Product (GDP) data about a country.

GDP Components	\$ million
Private consumption expenditure	380
Government consumption expenditure	450
Gross domestic fixed capital formation	230
Decrease in stock	50
Subsidies	30
Depreciation	40
Total exports	130
Total imports	170
Direct tax	30

The GDP at factor cost is \$ _____ million.

- A. 960 B. 970
C. 1 000 D. 1 100

Short & Structured Questions

1990/CE/I/3(a)(iii)

The following are Hong Kong's Gross Domestic Product (GDP) components (at current prices) in 1988:

	\$ Billion
Private consumption expenditure	255
Government consumption expenditure	30
Gross domestic fixed capital formation	109
Increase in stocks	10
Domestic exports of goods	218
Re-exports of goods	275
Imports of goods	501
Exports of services	86
Imports of services	56
(The GDP deflator for 1980 = 100)	

Find Hong Kong's GDP at current prices for 1988. Name the approach you have used to calculate the national income.
(5 marks)

1993/CE/I/4(a)(i)

The following table shows the composition of Hong Kong's Gross Domestic Product (GDP) in 1980 and 1990.

GDP Components	<u>Ratio to total GDP</u>	
	1980	1990
Private consumption expenditure	62%	62%
Government consumption expenditure	A%	6%
Investment	36%	28%
Exports	88%	165%
Imports	93%	161%

Name the method of GDP measurement used in the above table and calculate the value of A. Show your working. (4 marks)

2002/CE/I/11(a)(i)

The following shows the gross domestic product (GDP) data of economy A in a certain year.

	\$million
Private consumption expenditure	400
Net investment expenditure	180
Government consumption expenditure	250
Exports	500
Imports	650
Depreciation	150
Indirect business tax	50
Interest	200

Calculate the GDP at market price of economy A.

(3 marks)

$$\begin{aligned} & 1990/CE/I/3(a)(iii) \\ & C + I + G + (X - M) \\ & = \$\{255 + 109 + 10 + 30 + 218 + 275 - 501 + 86 - 56\} \text{ bn.} = \$426 \text{ bn.} \end{aligned}$$

$$\begin{aligned} & 1993/CE/I/4(a)(i) \\ & \text{Expenditure approach} \\ & 62\% + A\% + 36\% + 88\% - 93\% = 100\% \\ & \therefore A = 7 \end{aligned}$$

$$\begin{aligned} & 2002/CE/I/11(a)(i) \\ & \$\{400 + 180 + 150 + 250 + 500 - 650\} \text{ m} \\ & = \$830 \text{ m} \end{aligned}$$

$$\begin{aligned} & 2018/DSE/I/12(c) \\ & \text{Export of services / net exports} \end{aligned}$$

2018/DSE/I/12(c)
Source 2: Statistical data about tourism in Hong Kong in 2016

	2016	Compared with 2015 (%)
Mainland visitors	42.8 billion	-6.7%
Total visitors	56.65 billion	-4.5%
Total tourism expenditure associated with inbound tourism	HK\$296.2 billion	-10.1%

With reference to Source 2, to which component of Hong Kong's GDP does the 'total tourism expenditure associated with inbound tourism' belong? (1 mark)

MARKING SCHEME

1990/CE/I/33 A	1996/CE/I/30 C	2004/CE/I/29 C (36%)	2009/CE/I/28 C (53%)	2013/DSE/I/22 A (60%)
1993/CE/I/39 C	1998/CE/I/30 C	2005/CE/I/27 B (51%)	2010/CE/I/26 B (63%)	2016/DSE/I/23 C (54%)
1993/CE/I/51 A	2001/CE/I/28 C	2006/CE/I/28 C (29%)	2010/CE/I/27 B (63%)	
1996/CE/I/28 D	2003/CE/I/26 C (44%)	2008/CE/I/26 B (71%)	2012/DSE/I/22 B (61%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

(2)
(2)
(1)

(1)
(2)
(1)

(2)
(1)

(1)

1.3 VALUE-ADDED APPROACH

Multiple Choice Questions

1992/CE/II/13

Which of the following can lead to the conclusion that the manufacturing sector in Hong Kong is declining in its contribution to Hong Kong's Gross Domestic Product (GDP)?

- A. The number of workers in this sector is decreasing.
- B. The number of firms in this sector is decreasing.
- C. The wage rates in this sector are decreasing.
- D. The value added of this sector is decreasing.

1992/CE/II/46

Which of the following ways of measuring output involves double counting?

- A. summing up the expenditures on all final goods and services
- B. summing up the incomes earned by all factors of production
- C. summing up the values added in all production stages
- D. summing up the values of all market transactions

1995/CE/II/59

Year	Real GDP value-added per employee	
	1982	1992
Manufacturing sector	\$41 000	\$165 000
Services sector	\$103 000	\$280 000

Which of the following statements is NOT a conclusion drawn from the above table?

- A. The manufacturing sector had a higher labour productivity in 1992 than in 1982.
- B. The services sector had a higher labour productivity in 1992 than in 1982.
- C. The services sector had a higher labour productivity than the manufacturing sector in 1992.
- D. The services sector had a higher labour productivity growth rate than the manufacturing sector.

1998/CE/II/25

The following transactions were recorded in an economy in a certain year:

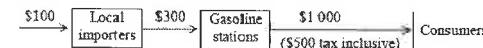
- (1) Firm A sold its products to Firm B for \$100 and Firm C for \$200.
- (2) Firm B then resold part of the products to households for \$200 and the rest to other firms for \$300.
- (3) Firm C then exported the products for \$500.

In the above transactions what was the total contribution of Firm B and Firm C to the gross domestic product (GDP) of this economy?

- A. \$700
- B. \$900
- C. \$1 100
- D. \$1 300

2000/CE/II/35

The following diagram shows a production chain involving the import of \$100 worth of gasoline into Hong Kong:



What is the contribution of the production chain to Hong Kong's GDP at factor cost?

- A. \$400
- B. \$500
- C. \$900
- D. \$1 000

2002/CE/II/26

Nancy runs a boutique in Hong Kong. The following table shows the boutique's financial statement for a given period of time.

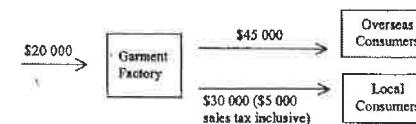
	(\$ 000)	(\$ 000)
Sales revenue of fashions	16 000	
Less : Imported fashions	2 000	
Electricity & water charges	3 000	
Wage payment	2 500	
Profits tax	1 500	9 000
Net profit		7 000

What is the contribution of Nancy's boutique to Hong Kong's GDP in thousand dollars?

- A. 7 000
- B. 11 000
- C. 14 000
- D. 16 000

2003/CE/II/27

The following diagram shows the production of a garment factory in Economy A. The factory imports \$20000 worth of raw materials.

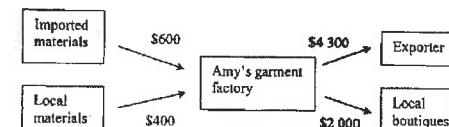


What is the contribution of the garment factory to Economy A's GDP at factor cost?

- A. \$10 000
- B. \$50 000
- C. \$55 000
- D. \$75 000

2004/CE/II/27

The following diagram shows a production process of an economy.



What is the contribution of Amy's garment factory to the national income of the economy?

- A. \$1 600
- B. \$3 700
- C. \$5 300
- D. \$5 900

2005/CE/II/28

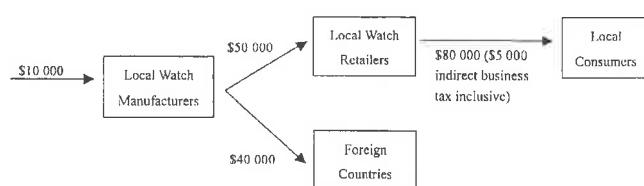
A production chain is shown below.



The contribution of the above production chain to Hong Kong's GDP is

- A. \$1 400.
- B. \$1 700.
- C. \$2 400.
- D. \$2 600.

Answer questions 28 and 29 by referring to the following production chain of watches in an economy. The local watch manufacturers import \$10 000 worth of raw materials.



2007/CE/II/28

What is the contribution of the above production chain to the economy's GDP at market prices?

- A. \$105 000
- B. \$110 000
- C. \$115 000
- D. \$120 000

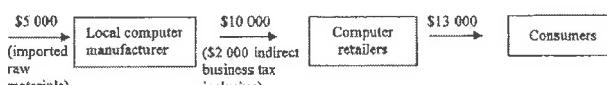
2007/CE/II/29

Which of the contribution of the local watch retailers to the economy's GDP at factor cost?

- A. \$25 000
- B. \$30 000
- C. \$75 000
- D. \$80 000

2009/CE/II/27

The following diagram shows a production chain of computers in an economy. It involves the import of \$5 000 worth of raw materials.



What is the contribution of the above production chain to the economy's gross domestic product (GDP) at factor cost?

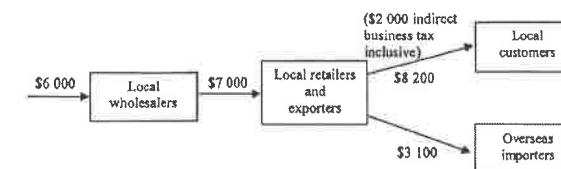
- A. \$6 000
- B. \$8 000
- C. \$10 000
- D. \$13 000

Macroeconomics by Topic
I. National Income

Macroeconomics by Topic
I. National Income

2010/CE/II/28

The following diagram shows a production chain of computers in an economy. It involves the import of \$6 000 worth of raw materials.

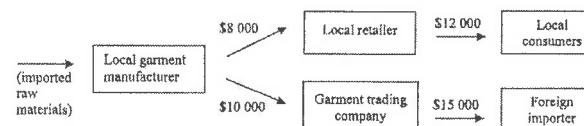


What is the contribution of the above production chain to the economy's GDP at factor cost?

- A. \$3 300
- B. \$5 300
- C. \$9 300
- D. \$11 300

2011/CE/II/26

The following diagram shows a production chain of garments in an economy. It also indicates the selling price of the output in different stages of the production. The imported raw materials are worth \$6 000.

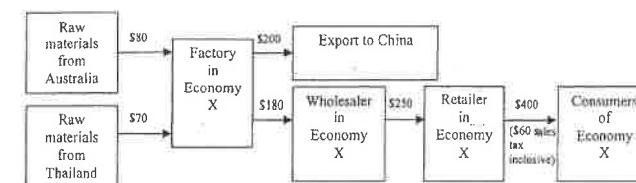


Suppose the garment trading company has received \$1 000 export subsidy from the government. What is the contribution of the above production chain to the economy's GDP at factor cost?

- A. \$20 000
- B. \$22 000
- C. \$26 000
- D. \$28 000

2014/DSE/I/24

The following diagram shows a production chain of a good in Economy X:

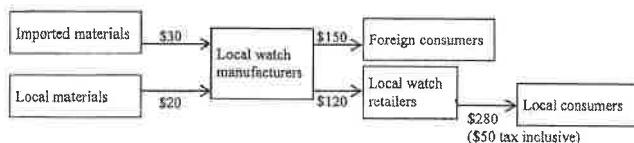


What is the contribution of the production chain to the Gross Domestic Product (GDP) at market price of Economy X?

- A. \$340
- B. \$390
- C. \$450
- D. \$600

2017/DSE/I/25

The following diagram shows a production chain of watches in an economy:

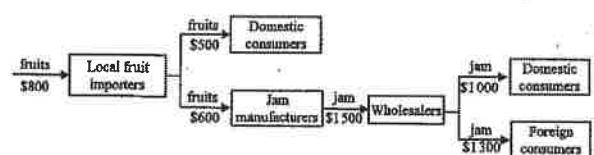


The contribution of the local watch manufacturer to the economy's GDP at market prices is _____.

- A. \$220
- B. \$240
- C. \$350
- D. \$400

2019/DSE/I/26

Refer to the following production chain in Country A and answer the question.

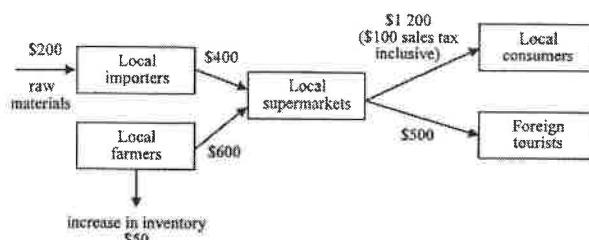


Suppose the above production chain has included a subsidy of \$300 that is given to the jam manufacturers. What is the contribution of the above production chain to Country A's GDP at factor cost?

- A. \$1700
- B. \$1800
- C. \$2000
- D. \$2300

2021/DSE/I/23

A production chain of Good X in an economy is shown below.



The contribution of the above production chain to the economy's gross domestic product at factor cost is _____.

- A. \$1400
- B. \$1450
- C. \$1500
- D. \$1550

Short & Structured Questions

1990/CE/I/3(a)(ii)

The following are Hong Kong's Gross Domestic Product (GDP) components (at current prices) in 1988:

\$ Billion

Private consumption expenditure	255
Government consumption expenditure	30
Gross domestic fixed capital formation	109
Increase in stocks	10
Domestic exports of goods	218
Re-exports of goods	275
Imports of goods	501
Exports of services	86
Imports of services	56

(The GDP deflator for 1980 = 100)

The re-exports of goods has a greater value than the domestic exports of goods. Does it follow that re-exports contribute more to the national income of Hong Kong than domestic exports? Explain. (7 marks)

1994/CE/I/11(c)

The vegetable sales revenue of Mr Chan's farm for the year 1993 was \$100 000. Give TWO possible reasons to explain why the contribution of this farm to the gross domestic product (GDP) of the country in 1993 could be less than \$100 000. (6 marks)

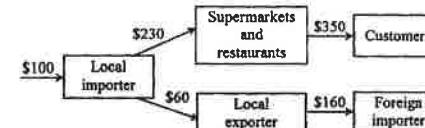
1997/CE/I/11(a)(ii)

Suppose \$1 million worth of seafood is imported to Hong Kong. Half of it is sold to local households at \$0.8 million and half to local restaurants at \$0.7 million. These restaurants cook and sell the seafood to their customers at \$1.6 million of which \$0.6 million is tourist spending.

- (I) The above transactions will also affect Hong Kong's GDP. Use TWO different measurement approaches to calculate the change. (4 marks)
- (II) Explain why the use of EACH of these two measurement approaches will not lead to the problem of double-counting. (4 marks)

1999/CE/I/9(c)

The following diagram shows a production chain involving the import of \$100 worth of red wine into Hong Kong. The sales value of different producers are indicated below:

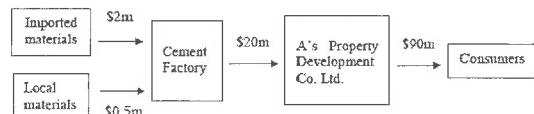


Calculate the contribution of the production chain to Hong Kong's national income by

- (i) the value-added approach. (3 marks)
- (ii) the expenditure approach. (3 marks)

2001/CE/I/11(a)(i)

Refer to the following production chain in Hong Kong:



Calculate the contribution of the above production chain to Hong Kong's GDP using the value-added approach. (3 marks)

2003/CE/I/9(b)(i)

Firm A is a local manufacturer in Hong Kong producing goods for export only.

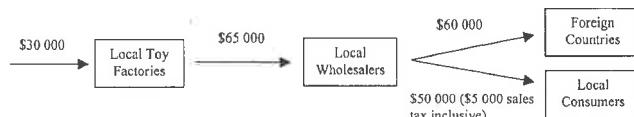
Give **TWO** reasons to explain why the contribution of this firm to Hong Kong's gross domestic product (GDP) in 2003 could be smaller than the total export value of this firm in 2003. (4 marks)

2004/CE/I/10(b)

The sales revenue of a local travel agency was reduced by \$200 million. Give **ONE** reason to explain why the reduction in that part of Hong Kong's GDP contributed by the travel agency is less than \$200 million. (2 marks)

2006/CE/I/5

The following diagram shows the production chain of toys in Economy A. Its toy factories import \$30 000 worth of raw materials.



Calculate the contribution of the above production chain to Economy A's

(a) gross domestic product (GDP) at factor cost using the expenditure approach. (3 marks)

(b) GDP at market prices using the value-added approach. (3 marks)

2014/DSE/I/11(b)

Suppose the sales revenue to the Japanese automobile exporters was 100 billion Japanese Yen in 2013. Give **TWO** reasons to explain why their contribution to Japan's GDP would be less than 100 billion Japanese Yen in 2013. (4 marks)

Macroeconomics by Topic I. National Income

MARKING SCHEME

1992/CE/I/13 D	2000/CE/I/35 A	2005/CE/I/28 C (69%)	2010/CE/I/28 A (66%)	2019/DSE/I/26 D
1992/CE/I/46 D	2002/CE/I/26 B (17%)	2007/CE/I/28 B (52%)	2011/CE/I/26 B	2021/DSE/I/23 B
1995/CE/I/59 D	2003/CE/I/27 B (54%)	2007/CE/I/29 A (46%)	2014/DSE/I/24 C (71%)	
1998/CE/I/25 A	2004/CE/I/27 C (75%)	2009/CE/I/27 A (56%)	2017/DSE/I/25 A (40%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/I/3(a)(ii)

No, because
the contribution to the national income depends on the valued-added.
for domestic exports of goods, Hong Kong adds value onto the imported raw materials and semi-manufactured
goods mainly by providing labour services.
for re-exports, Hong Kong earns income from providing services to the re-export trade.
the income earned from domestically-produced goods for exports can be smaller or greater than that from
servicing re-exports.

(1)

(3)

(3)

(3)

(2)

(1)

(2)

(2)

1994/CE/I/11(c)

Some vegetables were not current production (i.e. inventory of the previous year).
Some fertilizers used / vegetables sold were not produced by Mr Chan's farm.

(2)

(2)

1997/CE/I/11(a)(i)

(I) [Output (or value-added) approach:
$$\$[(0.8 - 0.5) + (0.7 - 0.5) + (1.6 - 0.7)] m = \$1.4 m$$

(1)

(1)

[Expenditure approach:
$$\$0.8 + 1.6 - 1 m = \$1.4 m$$

(1)

(1)

(Mere mention of correct numerical answer \$1.4 m without showing working – max: 1 mark)

(II) [Value-added approach:
Input costs are deducted at every stage of production.

(2)

[Expenditure approach:
Only the expenditures on final goods and services are summed up.

(2)

1999/CE/I/9(c)

(i) Value-added approach:
$$\$[230 + 60 - 100] + \$[(350 - 230) + (160 - 60)] = \$410$$

(2)

(1)

(ii) Expenditure approach:
$$\$[350 + 160 - 100] = \$410$$

(2)

(1)

2001/CE/I/1(a)(i)

$$\$[(90 - 20) + (20 - 2 - 0.5) + 0.5] \text{ m}$$

$$= \$88 \text{ m}$$

(2)
 (1)

2003/CE/I/9(b)(i)
 Firm A's contribution is the value added by A to the production. Other firms' contribution in the production process should have been deducted.
 Total export value in 2003 may have included part of the inventory in past years which should be deducted from the 2003 figures

(2)
 (2)

2004/CE/I/10(b)
 The value of outputs of other firms in HK that are bought by this firm for its production.

(2)

2006/CE/I/5
 (a) $\$(50\ 000 + 60\ 000 - 30\ 000) - \$5\ 000$
 $= \$75\ 000$

(b) $\{(60\ 000 + 50\ 000) - 65\ 000\} + \{(65\ 000 - 30\ 000)$
 $= \$80\ 000$

(1)
 (2)
 (1)
 (2)

2014/DSE/II/11(b)
 Not all factor inputs used to produce Japanese cars originated from Japan. e.g., some of the parts or raw materials were imported
 Some Japanese cars sold in 2013 were not produced in the same year. e.g., some of them came from the inventory.

(2)
 (2)

1.4 ITEMS INCLUDED AND EXCLUDED IN GDP

Multiple Choice Questions

1990/CE/II/39

Mr Wong is a second-hand car dealer. He bought a used car for \$20 000 which he immediately resold for \$25 000. By how much would the gross national product be increased after he sold the car?

- A. \$5 000
- B. \$20 000
- C. \$25 000
- D. \$45 000

1990/CE/II/49

The following were received by Mr A last year:

- (1) wages of \$10 000
- (2) public assistance of \$1 000
- (3) \$100 interest from his savings account
- (4) a Mark Six prize of \$8 000

His contribution to the GDP last year was

- A. \$10 000.
- B. \$10 100.
- C. \$11 100.
- D. \$19 100.

1991/CE/II/44

Which of the following is included when calculating Hong Kong's gross domestic product (GDP) by the expenditure approach?

- A. the compensation paid to Kowloon Walled City residents
- B. the expenditure incurred on buying a second-hand car
- C. the revenue earned from toys sold to Americans
- D. the revenue received by the government from taxation

1992/CE/II/45

Which of the following amounts should be included in the measurement of GDP?

- A. Mr. Chan sells his house, built two years ago, for \$2 000 000.
- B. Mr. Chan buys shares worth \$150 000.
- C. Mr. Chan wins a Mark Six prize of \$1 000 000.
- D. Mr. Chan receives a monthly salary of \$35 000.

1992/CE/II/47

A building which collapsed in a landslide at the beginning of the year was re-built at the end of the year. The GDP in that year

- A. increased
- B. decreased
- C. remained unchanged
- D. decreased at first and later increased

1992/CE/II/58

The expenditure by the Hong Kong government on Vietnamese boat people _____ included in Hong Kong's GDP because _____.

- A. should be goods and services are produced in Hong Kong
- B. should be part of the expenditure will be paid back by the United Nations
- C. should NOT be goods and services are spent on foreigners
- D. should NOT be Vietnamese boat people do not produce goods and services

1993/CE/II/35

Which of the following is included in the measurement of Hong Kong's Gross Domestic Product (GDP)?

- A. medical benefits of civil servants
- B. student travel subsidy
- C. dividends gained from overseas investments
- D. money won from betting in a horse race

1994/CE/II/32

Which of the following items should be included in Hong Kong's GDP for the current year?

- A. An investor buys shares on the local stock exchange.
- B. A British citizen receives a salary for teaching English in a school in Hong Kong.
- C. A student sells some used textbooks to his friend.
- D. A manufacturer sells last year's unsold stocks.

1995/CE/II/60

Which of the following will NOT be included in Hong Kong's GDP?

- A. profits earned by individual investors from buying and selling shares in the Hong Kong stock market
- B. bonuses paid by the Stock Exchange of Hong Kong Limited to its staff
- C. stamp duty levied on the shares bought and sold in the Hong Kong stock market
- D. commissions paid to the brokers for transactions in the Hong Kong stock market

1996/CE/II/27

Which of the following items is included in the calculation of Hong Kong's GDP?

- A. The government grant received by a university student.
- B. The salary received by a civil servant who is a foreigner working in Hong Kong.
- C. Interest to a loan paid by a firm in Hong Kong to a bank in Japan.
- D. Loans repayment made by the Hong Kong government to the Hong Kong Bank.

1997/CE/II/24

The following shows some assets of a farm. Which should be included in the calculation of investment expenditure of the GDP of this year?

- A. the expenditure on the ploughing of 10 acres of new farmland in spring this year
- B. the value of 10 tonnes of wheat stocked up since last year
- C. the settlement of a \$10 000 debt incurred as a result of repairing machines last year
- D. a recent expenditure on acquiring 10 000 units of government bonds in order to earn an annual interest of \$55 000

1997/CE/II/29

Which of the following events that occurred in 1996 would lead to a rise in the GDP of 1996?

- A. The government issued more Exchange Fund bills.
- B. The government increased the salaries tax allowance.
- C. The market value of accommodation units which were completed and sold in previous years rose continuously.
- D. An international corporation collected \$1 billion from the subscribers of its newly-issued shares.

1997/CE/II/60

Which of the following items is NOT included in the calculation of GDP?

- A. government spending of \$300 million on the employee retraining programme
- B. unemployment benefits of \$20 million paid by the government
- C. commission paid by a successful job searcher to an employment agency for job referral services
- D. salaries paid to the two extra posts created in the Labour Department to help job searchers

1998/CE/II/26

Which of the following would be considered as part of the national income?

- A. commissions received by salesmen selling second-hand cars
- B. a gift cheque to a bride for an invitation to her wedding banquet
- C. insurance compensation to injured workers
- D. scholarships to students with good results in schools

1999/CE/II/24

Which of the following should be included in the calculation of gross national product (GNP)?

- A. the value of newly issued shares sold
- B. the value of shares transacted in the stock market
- C. stamp duty paid for buying shares
- D. capital gain from selling shares

1999/CE/II/31

Which of the following \$1 million amounts is included in the calculation of Hong Kong's GDP?

- A. A famous singer holds a charity performance in Hong Kong and donates all the proceeds of \$1 million to the floods victims in Mainland China.
- B. A father transfers \$1 million worth of company shares to his daughter.
- C. A victim in a traffic accident receives a sum of \$1 million from the government as compensation for injury.
- D. An investor earns a capital gain of \$1 million from the sale of his flat.

2000/CE/II/33

Which of the following is included in the calculation of the gross domestic product (GDP) of Hong Kong?

- A. the estimated rental value of an owner-occupied property in Hong Kong
- B. the low-interest government loans to university students in Hong Kong
- C. the interest paid to foreign investors holding Exchange Fund bills
- D. the increase in the price of the shares issued by a bank in Hong Kong

2001/CE/II/50

Which of the following should **NOT** be included in the calculation of Hong Kong's GDP?

- A. the loans made by a local bank to its customers
- B. the tips received by a bellboy in a local hotel
- C. the 10% service surcharge collected by a local restaurant
- D. the income earned by a local hawker.

2002/CE/II/49

Which of the following items should **NOT** be included in the calculation of Hong Kong's GDP?

- A. profit gained by a car agent from reselling second-hand cars
- B. compensation paid to a car owner for his loss in a traffic accident
- C. insurance premium for a car paid to a local insurance company.
- D. Income earned by a person from repairing cars

2004/CE/II/26

Which of the following should be included in the calculation of the gross domestic product (GDP) of Hong Kong?

- A. the money received from the 'We Care Education Fund' by children who lost their parents to SARS
- B. the money received by a local property agent for this service in the resale of flats
- C. the money received by a local student from selling his used reference books to his schoolmates
- D. the money received by a local limited company from issuing new bonds in the market.

2005/CE/II/26

Which of the following items is included in the calculation of the gross domestic product (GDP) of Hong Kong?

- A. the salary receives by an American who works for a local television station as a reporter
- B. the money received by a local student from selling his mobile phone to his classmate
- C. the cash award won by a local citizen in a game show organized by a local television station
- D. the insurance compensation receives by a local construction worker for his injury

2006/CE/II/25

Which of the following \$5 million amounts is an investment expenditure in the national income accounting of Hong Kong?

- A. taking-over a company in Hong Kong by buying up \$5 million worth of shares
- B. purchasing \$5 million worth of 'Hong Kong Link' bonds (五隧一橋債券)
- C. depositing \$5 million into a licensed bank of Hong Kong
- D. spending \$5 million to turn a shopping mall car park in Hong Kong into shops

2007/CE/II/26

Which of the following statements about GDP is correct?

- A. GDP includes the value of imports.
- B. GDP is the total income of all the resident producing units.
- C. GDP is higher than gross national product if the net income from abroad is negative.
- D. GDP is the value of all goods and services transacted in the market.

2007/CE/II/27

Which of the following would be included in the GDP for 2005?

- A. Money deposited in a saving account during 2005
- B. The purchase price of an antique in 2005
- C. Public assistance paid to individuals during 2005
- D. The value of wheat produced but unsold in 2005

2015/DSE/I/24

Which of the following would be included in the calculation of Hong Kong's GDP for 2014?

- A. the old age allowance paid by the government in 2014
- B. the market value of a flat built in 2013 but sold in 2014
- C. the salary of a salesperson working in a shop selling second-hand handbags in 2014
- D. the rental income from a property in Canada owned by a Hong Kong resident producing unit in 2014

2018/DSE/I/24

Which of the following are included in the calculation of the gross domestic product of Hong Kong?

- (1) the estimated rental value of an owner-occupied property in Hong Kong
 - (2) the commission received by a real estate agent from selling second-hand property
 - (3) the scholarship received by a university student
- A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

Short & Structured Questions

1992/CE/I/5(b)

Explain whether each of the following is included in the calculation of Hong Kong's gross domestic product.

- (i) public assistance paid to the unemployed by the Social Welfare Department
- (ii) salaries paid to the employees of the Social Welfare Department

(6 marks)

1993/CE/I/4(b)(i)

Suppose a large number of Japanese TV sets are smuggled from Hong Kong to China and sold for HK\$40 million.

Explain whether the whole amount of this HK\$40 million will be included in Hong Kong's GDP. Suggest **TWO** reasons.
(4 marks)

1995/CE/I/11(d)

In early 1995, Mr. Ip earned a commission of \$20 000 by helping Mr. A sell a flat to Miss B at a price of \$2 000 000. Explain whether each of the following statements is true or not.

- (i) The commission should be included in Hong Kong's GDP for 1995. (2 marks)
- (ii) If the flat is currently under construction and to be completed next year, the production of the flat contributes nothing to Hong Kong's GDP for 1995. (3 marks)

1996/CE/I/3(b)

Share prices of Vitasoy International Holdings Limited (維他奶國際集團有限公司) fell because some of its products were found to be contaminated and were destroyed.

Explain whether the value of these destroyed products would be included in the calculation of Hong Kong's gross national product. (2 marks)

1996/CE/I/4(a)

A traffic light, which was worth \$1 500, was knocked down in a traffic accident. The driver was fined \$ 3 000 and the government used \$2 000 to install another traffic light.

What is the change in the gross domestic product (GDP) at factor cost brought about by this incidence? Explain your answer.
(2 marks)

1997/CE/I/8

Explain whether the following items should be included in the calculation of Hong Kong's gross domestic product (GDP):

- (a) sewage charges
- (b) the increased resale value of residential units due to a boom in the property market

(4 marks)

1998/CE/I/9(d)

Mr. Wong paid a commission of \$1 000 to the broker who helped him buy \$200 000 worth of shares. Explain whether these two items of payment would affect Hong Kong's gross domestic product (GDP). (4 marks)

1999/CE/I/7

Explain whether the following items should be included in the calculation of Hong Kong's gross national product.

- (a) the funds raised from the Millionwalk (2 marks)
- (b) the part of the public assistance which the needy spent on transport (2 marks)

2000/CE/I/9(b)(ii)

Some petroleum companies complained that their business was affected because some drivers bought gasoline from smugglers who evaded import duties.

Explain how the smuggling of gasoline would affect the GDP of this economy. (4 marks)

2000/CE/I/10(b)(iii)

Suppose Bank X of economy A takes over Bank Y of economy B by buying up its controlling shares worth \$5 million.

Explain whether the \$5 million mentioned above should be included in the calculation of the GDP of economy B. (3 marks)

2001/CE/I/11(a)(ii)

Hong Kong's property market has been depressed since 1998. Explain how a sharp fall in property prices and in the number of property transactions would affect Hong Kong's GDP. (5 marks)

2002/CE/I/11(a)(ii)

The following shows the gross domestic product (GDP) data of economy A in a certain year.

	\$million
Private consumption expenditure	400
Net investment expenditure	180
Government consumption expenditure	250
Exports	500
Imports	650
Depreciation	150
Indirect business tax	50
Interest	200

Miss Wong, an Economics teacher in a tutorial school, tells her students that the total spending of economy A's consumers in market value must be greater than \$400 million. Give **THREE** reasons to explain why she is correct. (6 marks)

2003/CE/I/11(a)

Many information technology (IT) companies in Hong Kong have closed down in recent years. Explain whether each of the following should be included in the calculation of Hong Kong's GDP.

- (i) the resale value of the furniture and equipment of the above companies (2 marks)
- (ii) the fee paid to Hong Kong accounting firms in liquidating the above companies (3 marks)

2006/CE/I/10(b)

Date	Exchange rate
1 December 2005	€1 = HK\$ 9.07
18 January 2006	€1 = HK\$ 9.37

Through a commercial bank, Mr Chan bought 10 000 Euros on 1 December 2005 and sold them on 18 January 2006 at the rates shown in the above table.

- (i) Calculate Mr Chan's gain / loss (in terms of HK\$) in the above transactions. Explain whether this gain / loss should be included in the calculation of Hong Kong's GDP. (4 marks)
- (ii) Explain whether the above transactions would lead to an increase in Hong Kong's GDP. (2 marks)

2008/CE/I/9(a)

The stock market of an economy is overheated. Many people withdraw money from their bank deposits to buy shares.

Harry bought the shares of a company at a value of \$2 000 at the beginning of the year and sold them at \$10 000 three months later. He has a capital gain of \$8 000.

Explain whether this amount of \$8 000 should be included in the calculation of the GDP of the economy. (2 marks)

2009/CE/I/9(c)

Some students purchase second-hand textbooks in bookstores. Explain why part of their total spending on buying second-hand textbooks should be included in the calculation of GDP. (2 marks)

2012/DSE/II/10(a)(i)

In 2011, the Financial Secretary announced the "Scheme \$6 000" which provides \$6000 to each Hong Kong permanent resident who is 18 years old or above.

Mr. Chan is a retired person and received \$6000 through the scheme in 2011. Should this item of payment by the government be included in the calculation of Gross Domestic Product of Hong Kong in 2011? Explain. (2 marks)

2015/DSE/II/9(d)

In July 2014, McDonald's was accused of using expired meat as an ingredient for its food. Later, the related products were destroyed. Explain whether the value of these destroyed products would be included in the calculation of Hong Kong's gross domestic product. (2 marks)

MARKING SCHEME

1990/CE/II/39 A	1993/CE/II/35 A	1997/CE/II/60 B	2002/CE/II/49 B (52%)	2015/DSE/I/24 C (75%)
1990/CE/II/49 B	1994/CE/II/32 B	1998/CE/II/26 A	2004/CE/II/26 B (71%)	2018/DSE/I/24 A (71%)
1991/CE/II/44 C	1995/CE/II/60 A	1999/CE/II/24 C	2005/CE/II/26 A (77%)	
1992/CE/II/45 D	1996/CE/II/27 B	1999/CE/II/31 A	2006/CE/II/25 D (65%)	
1992/CE/II/47 A	1997/CE/II/24 A	2000/CE/II/33 A	2007/CE/II/26 C (55%)	
1992/CE/II/58 A	1997/CE/II/29 B	2001/CE/II/50 A	2007/CE/II/27 D (59%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1992/CE/I/5(b)

- (i) Not included, because there is no production in return for the money. (1)
(2)
- (ii) Included, because it is a return to production in the year. (1)
(2)

1993/CE/I/4(b)(i)

No, because
(part of) it is not produced in Hong Kong, and
(part of) it is unreported transaction. (2)
(2)

1995/CE/I/11(d)

- (i) True, because it is Mr. Ip's factor income for his production / service rendered. (1)
(1)
- (ii) False, because production cost such as the labour wages paid in 1995 are included in the national income for 1995.
OR
the portion completed in 1995 is value-added in 1995.
OR
the portion completed in 1995 is investment in 1995. (1)
(2)

1996/CE/I/3(b)

Not included, because
not a consumption expenditure (as consumers got their money back) nor an investment expenditure (as the products were destroyed)
OR
no value added to GNP (as production costs such as cost of materials, wage payments, transportation cost, etc. were offset by loss at the firm level) (2)

Macroeconomics by Topic I. National Income		
1996/CE/I/4(a) GDP at factor cost increased by \$2 000, because it is a current production. OR the \$2 000 is included in the government expenditure of the current year.	(1)	
1997/CE/I/8 (a) The sewage charges should be included, because it is a payment for the services produced by the government. (b) The increased resale value should not be included, because there is no production of goods or services.	(1) (1)	
1998/CE/I/9(d) The commission to the broker must be added to Hong Kong's GDP, because it is an income to the broker / a payment for the broker's service OR it involves provision of service in this current year.	(1)	
The payment for shares should not be taken into account, because it is just a transfer of ownership of existing assets which does not relate to any current production.	(1) (1)	
1999/CE/I/7 (a) Not included, because charity donation is not a production. (b) Included, because it is in exchange for certain service rendered in the current year.	(1) (1)	
2000/CE/I/9(b)(ii) Smuggled gasoline has no official record in the GDP figures (∴ illegal) (On the other hand,) sales revenue of petroleum companies ↓ ∴ GDP ↓	(2) (1) (1)	
2000/CE/I/10(b)(iii) No, because the \$5 mn. refers to the value of shares being transferred and share transfer itself is not a production.	(1) (2)	
2001/CE/I/11(a)(ii) - market value of currently constructed property decreases - total value of middlemen services (of those property agencies, law firms, etc) decreases - effect on expenditure components, e.g. consumption ↓, investment ↓ - effect on factor income e.g. wages ↓, profits ↓ ∴ GDP decreases. (Mere mentioning of the conclusion without elaboration - zero mark)	(2@, max: 4) (1)	
2002/CE/I/10(a)(ii) Consumers' spending would be greater than \$400 m because there are - spending on goods not currently produced, e.g., inventories in past year which are sold in this year - spending on mere transfer of ownership, e.g., secondhand goods, existing stocks and shares, existing properties - spending on investment items e.g., new houses - unreported transactions e.g., illegal goods [Mark the FIRST THREE points only.]	(2@, max: 6)	
Macroeconomics by Topic I. National Income		
2003/CE/I/11(a) (i) No, because the amount received from the sale demonstrates merely a transfer of ownership which has no current production. (ii) Yes, because it represents the value of services provided by the accounting firms which are resident producing units of Hong Kong.	(1) (1) (1)	
2006/CE/I/10(b) (i) $\$(9.37 - 9.07) \times 10\,000$ = \$3 000. He gained \$3 000. No, because the capital gain does not involve production.	(1) (1) (1)	
2008/CE/I/9(a) No because an increase in the capital value <u>does not involve production</u> .	(1) (1)	
2009/CE/I/9(c) Part of the total spending is on the service provided by the bookstores. The service provided by the bookstores is a current production which should be counted as part of the GDP.	(2)	
2012/DSE/II/10(a)(i) No, because there is no corresponding production.	(1) (1)	
2015/DSE/II/9(d) No, because it is not sold to the market and thus not counted in production. [Output Approach] OR it is neither counted in consumption nor investment. [Expenditure Approach] OR business losses due to destroyed products (i.e., negative profits) would offset exactly wages paid to workers and other material costs incurred in producing these products (i.e., positive wage and other factor incomes). [Income Approach]	(1) (1)	

1.5 GDP AND GROSS NATIONAL INCOME (GNI)

Multiple Choice Questions

1991/CE/II/43

Which of the following is included in a country's gross national product?

- A. the expenditure on newly-issued shares
- B. the salary paid to a foreign employee
- C. the expenditure on public assistance
- D. the income of citizens earned abroad

1992/CE/II/48

The income of a Hong Kong citizen working in Canada is included in

- (1) Hong Kong's gross national product.
- (2) Hong Kong's gross domestic product.
- (3) Canada's gross national product.
- (4) Canada's gross domestic product.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

1993/CE/II/44

If GNP is greater than GDP,

- A. depreciation is greater than zero.
- B. net income from abroad is greater than zero.
- C. transfer payments are greater than zero.
- D. exports are greater than imports.

1995/CE/II/32

GDP will be greater than GNP when

- A. the net export is negative.
- B. the net export is positive.
- C. the net income from abroad is negative.
- D. the net income from abroad is positive.

1999/CE/II/26

Which of the following sources of income earned by local residents should be included in the calculation of 'net income from abroad'?

- (1) export of goods
- (2) export of services
- (3) property investment in foreign countries
- (4) stocks and shares investment in foreign countries

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (3) and (4) only

1999/CE/II/29

Which of the following statements about GDP is correct?

- A. GDP will be larger than GNP if the net export is positive.
- B. GDP does not include the income derived by local citizens from abroad.
- C. GDP does not consider the value of depreciation.
- D. Net income from abroad cannot be negative.

2002/CE/II/25

In order to calculate the gross national product of Hong Kong, which of the following items should be deducted from Hong Kong's gross domestic product (GDP) figure?

- A. the dividend received from shares in Hang Seng Bank by a Japanese person who lives in the U.S.
- B. the rental income earned by a Hong Kong resident from his property in the U.S.
- C. the salary earned by a native English teacher employed on a two-year contract in a secondary school in Hong Kong
- D. the donations of a Hong Kong resident to mainland China.

2004/CE/II/28

Which of the following items must be positive in value?

- A. net external factor income flow
- B. net exports
- C. depreciation
- D. gross profit of firms

2006/CE/II/26

Gross domestic product (GDP) will be greater than gross national product (GNP) when the amount of

- A. net income from abroad is negative.
- B. net income from abroad is positive.
- C. indirect taxes less subsidies is positive.
- D. net exports is negative.

2006/CE/II/29

Which of the following items should be included in the calculation of Hong Kong's net external factor income flow (i.e., net income from abroad)?

- (1) the spending of a Japanese tourist in Hong Kong
- (2) the revenue earned by a Hong Kong watch manufacturer from selling watches to Europe
- (3) the rental income of a Hong Kong resident from property investment in the U.K.
- (4) the interest received by a Hong Kong resident from his savings deposit in a bank in Switzerland

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

2008/CE/II/27

Which of the following amounts should be added to the GDP of Hong Kong in order to calculate the gross national product of Hong Kong?

- A. the income earned by a Japanese singer who held two concerts in Hong Kong
- B. the salary of a Hong Kong resident who works for the Hong Kong office of an American bank
- C. the rental income received by a Hong Kong resident from his residential apartment in Canada
- D. an investment made by a Hong Kong resident in a garment factory in Thailand

2009/CE/II/30

Suppose the GDP is greater than the gross national product. This implies that

- A. the net factor income from abroad is positive.
- B. the net factor income from abroad is negative.
- C. the net export is positive.
- D. the net export is negative.

2010/CE/II/30

Which of the following amounts should be deducted from the GDP of Hong Kong in order to calculate the gross national product of Hong Kong?

- A. the rental income received by a mainland investor from his residential apartment in Hong Kong
- B. the dividend received by a Hong Kong resident from his investment in the stock market in the US
- C. the scholarship given by a Hong Kong tycoon to subsidize mainland students to study in Hong Kong
- D. the salary of a Hong Kong resident working in a branch office of a British bank in Hong Kong

2011/CE/II/31

Which of the following items can be negative in value?

- (1) Net external factor income flow
 - (2) Net exports
 - (3) Net domestic fixed capital formation
- A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

2013/DSE/I/21

Which of the following items is NOT included in the calculation of Hong Kong's net factor income from abroad for the current year?

- A. the income received by a Japanese teacher who worked in a language school in Hong Kong for one year
- B. rental income earned from real estate holdings in Canada owned by a Hong Kong resident
- C. salary received by an Indian consultant who worked for the Hong Kong Airport Authority for three months
- D. dividends earned from shares in Hong Kong held by a US resident

2019/DSE/I/25

To calculate the gross national income of Hong Kong, which of the following should be added to the GDP of Hong Kong?

- A. the income earned by a Japanese chef who has worked in a Hong Kong restaurant for two months
- B. the rental received by a Hong Kong resident from leasing his house in Japan to a Japanese
- C. the salary earned by a Hong Kong resident from working as a secretary at the Hong Kong branch office of an Australian company
- D. the money received from selling an apartment in Australia by a Hong Kong resident

2020/DSE/I/25

Which of the following should be deducted from the gross domestic product of Hong Kong to calculate the gross national income of Hong Kong?

- A. the fee paid by a Hong Kong football club to a Japanese football team for an exhibition match in Hong Kong
- B. the rent earned by a Hong Kong property developer from its residential property in Japan
- C. the capital gain earned by a Japanese insurance corporation from its financial investment in Hong Kong
- D. the dividend paid by a listed company in Japan to a Hong Kong resident

Short & Structured Questions

1990/CE/I/1(c)

Explain whether the wage earnings of Filipino maids in Hong Kong are included in

- (i) Hong Kong's gross domestic product.

(2 marks)

- (ii) the Philippines' gross national product.

(2 marks)

2001/CE/I/6

Explain whether each of the following should be included in the calculation of Hong Kong's gross domestic product (GDP).

- (a) the salary of a Hong Kong citizen employed by a foreign airline

- (b) the rent paid by a foreign airline for using the premises owned by a Hong Kong company

(4 marks)

2002/CE/I/10(d)

Bank A runs its business in Hong Kong. Tom is a consultant from Japan who will work for Bank A for nine months. Afterwards he will return to Japan.

Explain whether Tom's salary for these nine months should be included in the calculation of Hong Kong's gross domestic product and gross national product.

(4 marks)

2015/DSE/I/10(a)

Suppose a football club in Hong Kong hired a famous football player from Brazil as the coach for a 2-month course for kids. He received \$8 million as his salary and returned to Brazil afterwards. However, the enrollment of the course was poor and the revenue from the course was \$3 million only. What is the effect of organizing the above course on each of the following items? Explain.

- (i) Hong Kong's gross domestic product (GDP)

(2 marks)

- (ii) Hong Kong's gross national product (GNP)

(3 marks)

MARKING SCHEME

1991/CE/II/43 D	1995/CE/II/32 C	2002/CE/II/25 A (29%)	2006/CE/II/29 D (46%)	2010/CE/II/30 A (58%)
1992/CE/II/48 B	1999/CE/II/26 D	2004/CE/II/28 C (53%)	2008/CE/II/27 C (48%)	2011/CE/II/31 A
1993/CE/II/44 B	1999/CE/II/29 B	2006/CE/II/26 A (67%)	2009/CE/II/30 B (70%)	2013/DSE/I/21 A (22%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2019/DSE/I/25
B

2020/DSE/I/25
A

Macroeconomics by Topic I. National Income		
1990/CE/I/1(c)		
(i) Yes, because Filipino maids are resident producing units of Hong Kong.	(1)	(1)
(ii) Yes, because the factor owner is a resident of the Philippines.	(1)	(1)
2001/CE/I/6		
(a) The answer is 'included' or 'excluded' depending on whether <u>the firm which employ him is a resident producing unit of HK or not.</u>	(1)	
Explanation of why the firm is or is not a resident producing unit of HK	(1)	
<u>E.g.1</u> Excluded: The foreign airline operates its business in foreign countries. It is not a resident producing unit of HK.		
<u>E.g.2</u> Included: A branch of the foreign airline operating in HK employs him. This branch is a resident producing unit of HK.		
(b) The answer is 'included' or 'excluded' depending on whether the rental income of a resident of HK <u>is earned in HK or not.</u>	(1)	
Explanation of why the rental income is or is not earned in HK	(1)	
<u>E.g.1</u> Included: The HK company operates its business in HK and the premises are located in HK. A resident of HK earns that rental income in HK.		
<u>E.g.2</u> Excluded: The HK company operates its business in HK and the premises are located in a foreign country. The rental income is earned by a resident of HK but it is an income from abroad.		
2002/CE/I/10(d)		
Included in HK's GDP, because Bank A is a resident producing unit of HK.	(1)	(1)
Excluded from HK's GNP, because Tom is not a resident of HK, and his salary is an income to abroad.	(1)	(1)
2015/DSE/II/10(a)		
(i) HK's GDP would increase (by \$3 million). As the course is a current-year production by a resident production unit, its value would be included in GDP.	(1)	(1)
(ii) HK's GNP would decrease (by \$5 million), as change in GNP = change in GDP (+\$3 million) + change in net income from abroad (-\$8 million). As the Brazilian coach is NOT a HK resident, the \$8 million he received would be counted as income outflow and enter as a negative item in HK's national income account.	(1)	(2)

Macroeconomics by Topic I. National Income		
1.6 NOMINAL AND REAL GDP		
<u>Multiple Choice Questions</u>		

1990/CE/II/53
Refer to the table below:

Year	Real GDP (\$Mn)	Nominal GDP (\$Mn)
1985	150	180
1982	120	120

What is the GDP deflator in 1985?

- A. 100
B. 120
C. 150
D. 180

1990/CE/II/56
When both the price level and the money income level of a society rise,

- A. the living standard will drop because the value of money decreases.
B. the living standard will rise because the citizens have more money to spend.
C. the living standard will not change because the rise in income is offset by the rise in price.
D. the effect on the living standard is not certain because the extent of both changes is unknown.

1991/CE/II/59

Growth rate of GDP in 1990	
At current market prices	15.2%
At constant (1980) market prices	11.9%

The above data do NOT show an increase in the _____ in 1990.

- A. general price level
B. nominal GDP
C. real GDP
D. labour productivity

1994/CE/II/33

For Question No. 33, consider the following data of an economy producing only bread and shirts:

	Price in 1992 (\$)	Price in 1993 (\$)	Output in 1993 (units)
Bread	10	12	50
Shirts	20	25	20

The GNP at constant (1992) market prices for 1993 is

- A. \$900.
B. \$1 100.
C. \$1 200.
D. \$1 490.

1995/CE/II/34

If a country's real GNP and price level both increase by 5%, this implies that

- A. the standard of living will remain unchanged.
- B. the nominal GNP will rise by 5%.
- C. the nominal GNP has a greater percentage increase than the real GNP.
- D. the nominal GNP will remain constant.

1997/CE/II/23

The following are data of Country X.

Year	1992	1997
GDP	\$500 billion	\$700 billion
Price Index (1990 = 100)	120	135

The growth rate of real GDP from 1992 to 1997 is:

- A. 24.4%
- B. 28.6%
- C. 40.0%
- D. 57.5%

1998/CE/II/23

Suppose a closed economy produces food and clothing only. The outputs of Years 1 and 2 are as follows

Year	Quantity of food (Unit)	Unit price of food (\$)	Quantity of clothing (Unit)	Unit price of clothing (\$)
1	20	4	40	12
2	15	10	35	30

From Year 1 to Year 2, the real gross national product (real GNP) of this country has (98.23)

- A. worsened because the price level increases.
- B. worsened because the output of both goods decreases.
- C. improved because the nominal GNP increases.
- D. improved because the technology advances.

1998/CE/II/29

Suppose a country experiences a 2% increase in the production volume of goods and services as well as a 3% rise in the general price level in a year. We can conclude that

- (1) the real GNP will increase by 2%.
 - (2) the nominal GNP will increase by 2%.
 - (3) the nominal GNP will increase by 3%.
 - (4) the nominal GNP will increase more than the real GNP by 1%.
- A. (1) only
 - B. (2) only
 - C. (1) and (2) only
 - D. (1), (3) and (4) only

1999/CE/II/25

Suppose the nominal GNP and the price level increase by 10% and 5% respectively, but the population decreases by 10%. Then the per capita nominal GNP will _____ and the per capita real GNP will _____.

- A. increase increase
- B. decrease decrease
- C. increase remain unchanged
- D. remain unchanged increase

Macroeconomics by Topic 1. National Income

Macroeconomics by Topic 1. National income

2000/CE/II/36

Year	GNP at current market prices (\$billion)	GNP deflator
1997	2 100	105
1998	2 800	125

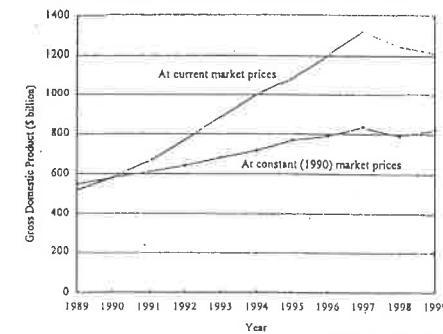
Based on the above information, the growth rate of real gross national product (real GNP) between 1997 and 1998 is

- A. 12%.
- B. 16.3%.
- C. 33.3%.
- D. There is insufficient information to find the answer.

2002/CE/II/30

Refer to the chart below.

Gross Domestic Product of Hong Kong, 1989 - 1999



Source: The Census and Statistics Department

From 1991 to 1998, GDP at current market prices is always greater than GDP at constant (1990) market prices because

- A. the inflation rate is increasing in this period.
- B. the real output level is rising in this period.
- C. the current price level is always higher than the price level of 1990.
- D. the inflation rate is higher than the real output growth rate.

2003/CE/II/28

Suppose the GDP deflator of an economy decreases from 100 to 90. This implies that

- A. its GDP decreases by 10%.
- B. the general price level decreases by 10%.
- C. people's real income increases by 10%.
- D. people's living standard decreases by 10%.

2003/CE/II/29

If both the nominal and real GDP of an economy are rising, the general price level of the economy

- A. is rising.
- B. is falling.
- C. remains unchanged.
- D. may be rising, falling or remain unchanged.

2005/CE/II/29

Study the following information about a country:

Year	Nominal GDP (in million dollars)	Price index
2003	75 000	90
2004	100 000	100

As compared to 2003, the _____ of this country was higher in 2004.

- A. general living standard
- B. real GDP
- C. consumption expenditure
- D. average income

2007/CE/II/32

Year	Nominal GDP (\$ billion)	Population (million)	Consumer Price Index
1	3 000	2	100
2	3 500	2.5	110

According to the above information, from Year 1 to Year 2, the economy's real GDP has _____ and the per capita nominal GDP has _____.

- A. increased decreased
- B. increased increased
- C. decreased decreased
- D. decreased increased

2008/CE/II/32

The following table shows the change in GDP from Year 1 to Year 2.

	Change
GDP at current market prices	+5.1%
GDP at constant market prices	+8.1%

We can conclude from the above data that the real output _____ and the general price level _____ in that period.

- A. increased decreased
- B. increased increased
- C. decreased increased
- D. decreased decreased

2009/CE/II/29

Refer to the following statistical data (in \$million) on an economy.

Year	GDP at current market prices	GDP at constant (2000) market prices
2007	142 900	134 200
2008	144 800	132 300

Compared with 2007, the general price level has _____ and the real output of goods and services has _____ in 2008.

- A. increased decreased
- B. increased increased
- C. decreased decreased
- D. decreased increased

2010/CE/II/33

Year	Year-on-year percentage change	
	GDP at current market prices	GDP at constant (2000) market prices
2007	9.5%	6.4%
2008	3.8%	2.4%

Based on the above information, we can conclude that in 2008,

- A. the general price level decreased.
- B. the real GDP decreased.
- C. the GDP deflator increased.
- D. the general living standard increased.

2012/DSE/I/23

Country A's general price level increases by 10% and its aggregate output and population drop by 2% and 10% respectively. As a result, Country A's nominal GDP will _____ and the per-capita real GDP will _____.

- A. rise rise
- B. rise fall
- C. remain unchanged rise
- D. remain unchanged fall

2015/DSE/I/25

Refer to the following table about an economy.

	Growth rate (relative to previous year) (%)	
	Year 1	Year 2
Nominal GDP	4	0
General price level	3	1
Population	-1	2

Which of the following statements about the economy is correct?

- A. The per capita nominal GDP in year 2 is the same as that in year 1.
- B. The real output increased in year 2.
- C. The general price level decreased in year 2.
- D. The per capita real GDP decreased in year 2.

2017/DSE/I/26

The following table shows some data of an economy.

	Growth rate	
	2015	2016
GDP	-3%	-2%
Price level	1%	0%
Population	4%	2%

Which of the following statements about the economy is correct?

- A. Real GDP in 2016 decreases.
- B. Per capita GDP in 2016 increases.
- C. The price level in 2016 decreases.
- D. The growth rate of real GDP in 2016 is lower than that in 2015.

2018/DSE/I/25

The following table shows the gross domestic product (GDP) data of an economy in a particular year:

GDP components	\$ billion
Capital consumption allowance	40
Net factor income from abroad	36
Production subsidies	14
Direct taxes	5
Indirect taxes	47

Which of the following statements about the economy are correct?

- (1) The GDP is smaller than the gross national income (GNI).
 - (2) The GDP at market price is smaller than the GDP at factor cost.^{*}
 - (3) Depreciation is positive in the economy.
- A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2019/DSE/I/23

The following table shows the gross domestic product (GDP) data of an economy in a certain year:

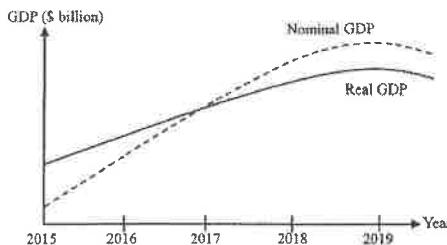
Change in real GDP	-2.5%
Change in nominal GDP	-1.3%
Change in population size	-1.8%

According to the information above, we can conclude that in that year, the price level _____ and the per capita nominal GDP _____.

- A. increased increased
B. decreased decreased
C. increased decreased
D. decreased increased

2020/DSE/I/26

The following diagram shows the gross domestic product (GDP) of Country A.



Which of the following statements about Country A is correct?

- A. The price level increased between 2016 and 2018.
B. Deflation occurred before 2017.
C. The actual inflation rate was equal to the expected inflation rate in 2017.
D. The nominal GDP has been increasing since 2016.

2021/DSE/I/24

Refer to the gross domestic product (GDP) data of an economy.

	Growth rate (relative to previous year)
Nominal GDP	0
Real GDP	-1.2%
Per-capita nominal GDP	-3.5%

Compared to the previous year, the general price level has _____ and population has _____ in the economy in the current year.

- A. increased ... increased
B. increased ... decreased
C. decreased ... increased
D. decreased ... decreased

Short & Structured Questions

1990/CE/I/3(a)(iv)

The following are Hong Kong's Gross Domestic Product (GDP) components (at current prices) in 1988:

	\$ Billion
Private consumption expenditure	255
Government consumption expenditure	30
Gross domestic fixed capital formation	109
Increase in stocks	10
Domestic exports of goods	218
Re-exports of goods	275
Imports of goods	501
Exports of services	86
Imports of services	56
(The GDP deflator for 1980 = 100)	

Apart from the above data (GDP at current prices for 1988 given as the above data), what other information is needed to calculate

- (I) Hong Kong's per capita GDP at current prices for 1988? (2 marks)
 (II) Hong Kong's GDP for 1988 at constant (1980) market prices? (2 marks)

1992/CE/I/5(a)

The national income of a country in 1991 is \$60 million.

- (ii) Given the price indexes for 1980 and 1991 were 100 and 150 respectively. Calculate the real national income for 1991 based on 1980 prices. (2 marks)
 (iii) Explain whether the nominal national income or the real national income is a better indicator of general living standard. (3 marks)

1996/CE/I/6

Year	Price index (yearly average)	Peter's salary
1994	120	\$ 10 000
1995	150	\$ 12 000

From the above data, explain whether Peter's real wage in 1995 has increased when compared to that in 1994. (3 marks)

2000/CE/I/6(b)

Study the following data about Hong Kong.

Year	Quarter	Year on year % change in real gross domestic product (GDP)	Unemployment rate (%)	Composite consumer price index
1998	2nd	-5.1	4.4	119.2
	3rd	-6.8	5.0	118.6
	4th	-5.7	5.7	116.1
1999	1st	-3.4	6.2	115.6

Some worker's salaries were frozen during this period of time. Explain how their real income would change in this period. (3 marks)

2002/CE/I/12(b)(ii)

In order to cut expenses, Mr Wong reduces the monthly salaries of the staff working in the bookstore. Explain whether the real income of his staff would necessarily fall during deflation. (5 marks)

2003/CE/I/5

The following table shows data concerning a certain country.

Year	1992	2002
Consumption Expenditure (\$ million)	2 500	2 679
Population (million)	5	6
Price Index	100	95

Based on the above data, explain in which year, 1992 or 2002, the country had a higher general living standard. Show your workings. (6 marks)

2004/CE/I/5

Refer to the following gross domestic product (GDP) data for Hong Kong.

Year	GDP at current market prices (HK\$ million)	GDP at constant (2000) market prices (HK\$ million)
2001	1 269 975	1 294 382
2002	1 259 771	1 323 650

- (a) Explain whether the real output level in 2001 is higher than that of 2002. (2 marks)

- (b) For both 2001 and 2002, explain why the GDP at current market prices is smaller than the GDP at constant market prices for the same year. (2 marks)

2007/CE/I/4(a)

The table below shows the gross domestic product (GDP) statistics of Hong Kong:

Year	GDP at current market prices	GDP at constant (2000) market prices	GDP deflator
2003	1 233 983	1 390 610	88.7
2004	1 291 568	1 510 182	85.5
2005	1 382 052	1 619 984	A

The value of A is _____.

(1 mark)

2009/CE/I/7(a)

Refer to the following statistical information on a country.

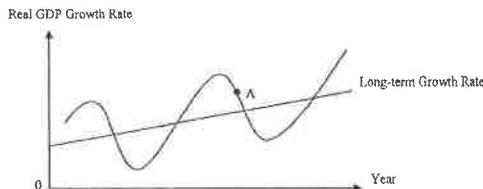
	Year 2000	Year 2008
Nominal gross domestic product (GDP) (\$ million)	16 000	24 840
Price index	100	115
Population (million)	10	12

Calculate the per capita real GDP for the years 2000 and 2003.

(2 marks)

2010/CE/I/7(c)

Refer to the business cycle shown below.



During this phase of the business cycle, the nominal wage rate of some workers was reduced. Explain whether their real wage rate must also have decreased. (3 marks)

2012/DSE/I/11(b)

Many workers have their salaries increased during inflation. Explain whether the real income of these workers would necessarily rise. (3 marks)

MARKING SCHEME

1990/CE/I/53 B	1997/CE/I/23 A	2002/CE/I/30 C (32%)	2008/CE/I/32 A (40%)	2017/DSE/I/26 A (52%)
1990/CE/I/56 D	1998/CE/I/23 B	2003/CE/I/28 B (54%)	2009/CE/I/29 A (68%)	2018/DSE/I/25 B (55%)
1991/CE/I/59 D	1998/CE/I/29 A	2003/CE/I/29 D (46%)	2010/CE/I/33 C (37%)	2019/DSE/I/23 A
1993/CE/I/41 C	1999/CE/I/25 A	2005/CE/I/29 B (57%)	2012/DSE/I/23 A (53%)	2020/DSE/I/26 A
1995/CE/I/34 C	2000/CE/I/36 A	2007/CE/I/32 A (63%)	2015/DSE/I/25 D (64%)	2021/DSE/I/24 A

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/I/3(a)(iv)

(I) Population in 1988 (2)

(II) GDP deflator in 1988 / Price index in 1988 (2)

1992/CE/I/5

$$(a) \text{ (ii)} \quad \text{Real national income} = \text{Nominal national income} \times (\text{Price index for 1980} : \text{Price index for 1991}) \\ = \$60 \text{ million} : (100 : 150) \\ = \$40 \text{ million}$$

(iii) Real national income is a better indicator, because it is free from the effects of the price changes in the year. (1) (2)

1996/CE/I/6

$$\text{Real wage in 1994} = \$10\,000 \times (100 : 120) = \$8\,333.3 \\ \text{Real wage in 1995} = \$12\,000 \times (100 : 150) = \$8\,000$$

OR

$$\text{Real wage in 1995 based on 1994} \\ = \$12\,000 \times (120 : 150) = \$9\,600 < \$10\,000$$

OR

$$\text{Change in price index: } [(150 - 120) : 120] \times 100\% = +25\% \\ \text{Change in salary: } [(\$12\,000 - \$10\,000) : \$10\,000] \times 100\% = +20\%$$

∴ Real wage decreased. (1)

2000/CE/I/6(b)

For the same amount of money income, real income rose as price level decreased. (3)

2002/CE/I/12(b)(ii)

Not necessary because if the general price level falls at a higher rate than (at the same rate as) the wage cut, their real income would increase instead (remain unchanged). (4)

(Remark: Mere mentioning of "general price level ↓ / purchasing power of money ↑" - max. 1 mark)

2003/CE/I/5

Per capita real consumption expenditure in 1992
 $= \$2\ 500\ m \div 5\ m$
 $= \$500$

(2)

Per capita real consumption expenditure in 2002
 $= \$[2\ 679\ m \times (100 / 95)] \div 6\ m$
 $= \$470$

(2)

\therefore a higher per capita real consumption expenditure in 1992

(1)

OR

Change in per capita nominal consumption expenditure
 $= [\$2\ 679\ m / 6\ m] - [\$2\ 500\ m \div 5\ m] \div \$[2\ 500\ m \div 5\ m]$
 $= -10.7\%$

(2)

Change in price index
 $= (95 - 100) \div 100$
 $= -5\%$

(2)

$\therefore \% \downarrow$ in price index $< \% \downarrow$ in per capita nominal consumption expenditure

(1)

Conclusion: a higher general living standard in 1992

(1)

2004/CE/I/5

(a) No, because
 the real GDP (or constant price GDP) for 2002 was higher.

(1)

(1)

(b) The general price level was decreasing / deflation / inflation rate was negative.

(2)

2007/CE/I/4(a)

85.3

(1)

2009/CE/I/7(a)

Year 2000: $\$16\ 000\ \text{million} \div 10\ \text{million} = \$1\ 600$

(1)

Year 2008: $\$24\ 840\ \text{million} \div (115 \times 100) \div 12\ \text{million} = \$1\ 800$

(1)

2009/CE/I/9(c)

Part of the total spending is on the service provided by the bookstores. The service provided by the bookstores is a current production which should be counted as part of the GDP.

(2)

2010/CE/I/7(c)

Not necessarily decreased, because
 the real wage rate will increase if the percentage decrease in the general price level is greater than the percentage decrease in the nominal wage rate.

(1)

(2)

2012/DSE/II/11(b)

No, because
 the real income of workers would fall if the percentage increase in price level is greater than the percentage increase in nominal wage.

(1)

(2)

1.7 LIMITATIONS OF NATIONAL INCOME STATISTICS

Multiple Choice Questions

1993/CE/II/41

The nominal Gross National Product (GNP) of a country may overstate the living standard of its people because the figure

- (1) does not reflect the improvement in the quality of the goods and services produced in the country
- (2) does not reflect the effect of a rise in the price level
- (3) excludes the undesirable effects of production
- (4) excludes the goods not transacted in the market

- A. (1) and (2) only

- B. (1) and (4) only

- C. (2) and (3) only

- D. (3) and (4) only

1999/CE/II/30

Under which of the following circumstances will the per capita real GNP underrate the living standard?

- A. when the construction industry causes noise pollution
- B. when there is an increase in population due to immigration
- C. when Mrs Lam does the housework by herself instead of employing a servant
- D. when there is inflation

2002/CE/II/27

Country X has a higher GDP but a lower general living standard than Country Y. Which of the following is a possible reason for this?

- A. The net factor income from abroad of Country Y is smaller.
- B. The working hours of people in Country Y are longer.
- C. Capital goods make up a higher proportion of the output of Country Y.
- D. The population size in Country Y is smaller.

2006/CE/II/50

GDP at constant market prices would **NOT** be a good indicator to compare the living standard of two countries when the _____ of the two countries is different.

- (1) population size
- (2) income distribution
- (3) inflation rate

- A. (1) and (2) only

- B. (1) and (3) only

- C. (2) and (3) only

- D. (1), (2) and (3)

2010/CE/II/29

The per capita real GDP of a country would overstate the living standard of its people because it

- (1) does not reflect the improvement in the quality of goods and services produced.
- (2) does not reflect the uneven distribution of income.
- (3) does not reflect the undesirable effects of production.
- (4) excludes the calculation of the goods and services not transacted in the market.

- A. (1) and (2) only
B. (1) and (4) only
C. (2) and (3) only
D. (3) and (4) only

Short & Structured Questions

1991/CE/I/3

Suppose there are only two countries and two commodities in the world. Every year each has 20 units of resources. Each uses 10 units of resources per year to produce each commodity. The annual output per unit of resources is shown below:

	Food (units)	Clothing (units)
Country A	6	OR
Country B	5	OR

(a) (i) Define 'Gross National Product' (GNP). (4 marks)

(ii) In Country A, the market prices of food and clothing are \$2 and \$1, respectively. Calculate the GNP for country A. (4 marks)

(b) To compare the general living standard of any two countries, what should we consider in addition to comparing their GNP figures? State and explain THREE of them. (9 marks)

1993/CE/I/4(a)(ii)

The following table shows the composition of Hong Kong's Gross Domestic Product (GDP) in 1980 and 1990:

<u>GDP Components</u>	(Ratio to total GDP)	
	1980	1990
Private consumption expenditure	62%	62%
Government consumption expenditure	A%	6%
Investment	36%	28%
Exports	88%	165%
Imports	93%	161%

Although Hong Kong people spent the same percentage of GDP on consumption in 1980 and 1990, their living standard increased during the decade. Give TWO reasons to explain this. (4 marks)

1994/CE/I/11(d)

It is known that Country A has a lower GDP than Country B, but people in Country B prefer to live in Country A. Give TWO economic reasons to explain why this is so. (6 marks)

1996/CE/I/10(c)

Suppose after trade, Country B has a higher consumption level of both clothing and rice than Country A.

Give THREE reasons to explain why we cannot conclude that people in Country B generally enjoy a higher living standard as compared to Country A. (6 marks)

2005/CE/I/6

Answer Questions 6 and 7 by referring to the following information about the Gross Domestic Product (GDP) of Hong Kong.

Table 1:	Year	Implicit price deflator of GDP	Per capita GDP at current market prices (HK\$)
	2001	98.1	188 835
	2002	94.6	183 790
	2003	89.6	179 333

Other than the information given in Table 1, state TWO kinds of information that are needed for an accurate reflection of Hong Kong people's standard of living. Explain your answer. (4 marks)

2007/CE/I/5

During an economics class discussion, a student said, "If the per capita real GDP of country X is higher than that of country Y, then residents of country X must be enjoying a higher living standard than residents of country Y."

Give **TWO** reasons to explain why the student is wrong,

(4 marks)

2009/CE/I/7(b)

Explain with **TWO** reasons why a change in per capita real GDP cannot accurately reflect the change in the general living standard.

(4 marks)

MARKING SCHEME

1993/CE/II/4I
C

1999/CE/II/30
C

2002/CE/II/27
D (69%)

2006/CE/II/50
A (38%)

2010/CE/II/29
C (65%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/I/3

(a) (i) GNP is the total incomes earned by the residents of a country over a period of time (usually 1 year).

(4)

$$\begin{aligned} \text{(ii)} \quad & \$2 \times (6 \times 10) + \$1 \times (12 \times 10) \\ & = \$240 \end{aligned}$$

(2)

(2)

(b) - same GNP but larger population size will lead to smaller per capita GNP

- relative price level consideration: same nominal GNP but higher price level will lead to lower standard of living

- same per capita GNP but more uneven income distributions may mean lower general living standard

- different GNP composition may mean a higher consumption expenditure in one country (i.e. higher general living standard) but a higher investment expenditure or a higher military expenditure in another (i.e. lower general living standard)

- same GNP but a more serious problem of pollution, traffic congestion, etc. will lead to a lower living standard

- same GNP but more leisure hours will lead to a higher living standard

- same GNP but larger amount of non-market / unreported / illegal goods and services will lead to a higher living standard

(3@, max: 9)

[Mark the **FIRST THREE** points only.]

1993/CE/I/4(a)(ii)

- per capita real GDP has increased during the decade

- better quality of goods (∴ technological advancement)

- more varieties of goods (∴ technological advancement)

- more imports of consumer goods

- better environment protection

- less working hours

(2@, max: 4)

[Mark the **FIRST TWO** points only.]

1994/CE/I/11(d)

In Country A with a lower GDP,

- its per capita GDP may be higher (∴ it has a much smaller population) and more likely to live a better life there

- its real GDP may be higher (∴ it has a much lower price level)

- its income may be more evenly distributed ⇒ more attractive to the very low income people of Country B

- its GDP may have a very different composition e.g. a much larger component of consumption expenditure ⇒ more attractive to people who prefer to enjoy life immediately

(3@, max: 6)

[Mark the **FIRST TWO** points only.]

1996/CE/I/10(c)

This is because we do not know:

- the population size / per capita income of both countries.
(If B's population size is three times, say, as that of A, then in general B's living standard is not higher than A.)
- the income distribution of both countries.
(If B's income is highly unevenly distributed but A's is not, then we cannot conclude that.)
- other social costs of both countries.
(e.g. If B has a higher crime rate / more serious social instability / etc., then B's living standard may not be generally higher than A.)
- other social benefits of both countries.
(e.g. If B has less social benefits / less leisure hours / etc., then B's living standard may not be generally higher than A.)
- what other goods besides rice and clothing these two countries have.
(e.g. If B has less other goods, then the conclusion may be wrong.)

(2@, max: 6)

[Mark the FIRST THREE points only.]

2005/CE/I/6

- Income distribution: If income is unevenly distributed, the living standard of ordinary people will be overestimated.
- Composition of output: If a large proportion of total output consists of capital goods, national defense, etc., the living standard will be overestimated.
- Undesirable effects of production: The problems of pollution or traffic congestion would lower the living standard. Therefore, the living standard would be overestimated without such information.
- Amount of leisure: Leisure would raise the living standard. Therefore, the living standard would be underestimated without such information.
- Unreported production activities: The consumption of non-marketed goods / the existence of unreported transactions would improve the living standard. Therefore, the living standard would be underestimated without such information.

(2@, max: 4)

[Mark the FIRST TWO points only.]

2007/CE/I/5

- Difference in income distribution: Income is less evenly distributed in country X.
- Difference in the composition of output: In country X, a larger proportion of total output consists of capital goods and national defense.
- Different undesirable effects of production: There are more problems of pollution or traffic congestion in country X.
- Different amount of leisure: The people of country X enjoy less leisure.
- Different amount of non-marketed / unreported production activities: There are fewer non-marketed / unreported goods in country X.

(2@, max: 4)

[Mark the FIRST TWO points only.]

2009/CE/I/7(b)

(For each of the following points, the case of an increase in the per capita real GDP is used for illustration purposes)

- Income distribution: If income is unevenly distributed, the corresponding change in the living standard of ordinary people will be overestimated.
- Composition of output: If a large proportion of total output consists of capital goods, national defense, etc., the corresponding change in the general living standard will be overestimated.
- Undesirable effects of production: The problems of pollution or traffic congestion would lower the living standard. Therefore, the corresponding change in the general living standard would be overestimated without such information.
- Amount of leisure: Leisure would raise the living standard. Therefore, the corresponding change in the general living standard would be underestimated without such information.
- Unreported production activities: The consumption of non-marketed goods / the existence of unreported transactions would improve the living standard. Therefore, the corresponding change in the general living standard would be underestimated without such information.

(2@, max: 4)

[Mark the FIRST TWO points only.]

1.8 UNCLASSIFIED

2007/CE/I/10(a)

Typhoons affect the production activities of economies.

It is given that the gross domestic product of Hong Kong per day is HK\$3.3 billion. When the typhoon signal number 8 is hoisted, the daily economic loss is estimated to be less than HK\$3.8 billion. Give TWO reasons to explain why. (4 marks)

2008/CE/I/11(d)

Suppose a country's export value of goods and services decreases by \$3 billion. In reality, the resulting decrease in GDP may be less than or more than \$3 billion.

(i) Explain a factor that would lead to a less-than \$3 billion decrease in GDP. (3 marks)

(ii) Explain a factor that would lead to a more-than \$3 billion decrease in GDP. (2 marks)

2016/DSE/II/11(a)

Medical service is one of the basic human needs.

Source A: a conversation outside a public clinic in Hong Kong

Son: Dad, I feel very ill.

Father: Oh no! There is a long queue waiting.

Son: Why don't we go to a private doctor?

Father: The fee charged by public clinics is only \$45, much lower than that charged by private doctors.

Refer to Source A. When a public clinic provides medical service for one patient, the resulting rise in gross domestic product will be \$45. Do you agree? Explain. (3 marks)

2018/DSE/II/11

To develop nuclear weapons and increase the military power, Country Z has raised the proportion of government spending on national defence from 10% to 20%. All males aged from 20 - 25 are also required to join the military force for 2 years.

In response to the increasing military threat from Country Z, the United Nations has passed a bill to embargo most of the goods exporting from Country Z.

Analyse the effects of the above situation on Country Z's general living standard.

(3 marks)

MARKING SCHEME

2007/CE/I/10(a)

- Some production activities are still undergoing during typhoon
 - Some production activities e.g. emergency services, are generated during typhoon.
 - Some production activities disrupted during typhoon can be compensated later.
- [Mark the **FIRST TWO** points only]
- (2@, max: 4)

2008/CE/I/11(d)

- (i) Part of the decrease in export value would not lead to a corresponding decrease in GDP when, referring to those \$3 billion worth of exports,
- part of it is not locally produced.
 - e.g. some of the production raw materials are imported
 - e.g. part of the value of these exports comes from the value of re-exports
 - part of it is not produced in the current year
 - e.g. some of these exports are second-hand goods
 - e.g. some of these exported goods come from the inventory
 - part of those goods not exported have already been produced.
 - e.g. those goods not exported are sold locally
- (Any factor, 3)

- (ii) The amount of GDP derived from the spillover effect of the production of the exports will also decrease. (2)

2016/DSE/II/11(a)

- No, because public services are usually subsidized - i.e. provided at or below cost, which is in turn lower than market price. Their contribution to GDP (or market value), computed using market price, would thus be higher than \$45 (the subsidized price charged by the clinic).

OR

- the public services which are not sold at the market price will be counted using factor cost in the GDP, which is higher than \$45. (2)

2018/DSE/II/11

- The living standard would fall, because the higher proportion of government expenditure or resources / output devoted to national defence would not have much to contribute to the living standard in general. Overall the citizens would enjoy less goods and services. Since those males drafted for military service are forced to leave their existing jobs, their household income (and consumption) would fall. (3)

SECTION 2: MACROECONOMIC PROBLEMS

2. UNEMPLOYMENT

Unemployment

Which of the following people would be classified as "unemployed" in Hong Kong?

- A - A 20-year-old who has failed after winning the Macau Trip
- B - A 16-year-old boy who comes and goes between Hong Kong and China, with no job, no job and has given up his trip to Macau
- C - Many who lost their job five weeks ago and has been looking for a new job for one month

Unemployment

Which of the following are the possible reasons to justify raised unemployment?

- (A) Increase in imports
- (B) Increase crime rate
- (C) Decrease spending on public services
- (D) Reduction in the government's tax revenue

- A - C and D only

- B - C and D only

- C - C and D only

- D - C and D only

Unemployment

Which has not been job for two months because failure loss of employment in last 12 months in Hong Kong Government, here?

- A - Underemployed
- B - Underemployed
- C - Employed
- D - Not in the labour force

Unemployment

With the following data about Hong Kong's labour force, answer the question.

Labour Force Status	Number of Persons
Employed Population	1,200,000
Unemployed Population	100,000
Underemployed Population	200,000
Not in the Labour Force	300,000

The unemployment rate is

- A - 2.5%

- B - 3.0%

- C - 3.5%

- D - 3.4%