Student ID: 6304641126

Question 1 Fill in the blanks. You must show your work.

Year	2014	2015
Nominal gross national income (GNI) ($ billion)	291.53	292.56
Factor income sent abroad ($ billion)	68.30	75.90
Factor income earned abroad ($ billion)	8.13	9.49
Nominal gross domestic product (GDP) ($ billion)	352.73	358.97
GDP deflator	100	100.88
Real GDP ($ billion)	3.517	3.558

GDP + (earn - sent)

GNI = GNP

-66.41

GNI 2015 = 358.97 + (9.49 - 75.9)

= GDP + NFFI

= 292.56

GDP 2014 : GNP = GDP + NFFI

GNP = GDP + NFFI

291.53 = GDP + (8.13 - 68.3)

GDP = 351.7

Real GDP 2014 = $\frac{351.7}{100}$ = 3.517

= $\frac{\text{Nominal GDP}}{\text{Deflator}}$ 2015 = $\frac{358.97}{100.88}$ = 3.558

Question 2 Fill in the blanks. You must show your work.

B A

Year	2012	2013	2014	2015
Consumer price index (CPI)	99.08	100.55	102.51	107.52
Inflation rate (%)	–0.92	1.48	1.95	4.89
Employed (millions)	12.50	12.60	12.85	13.05
Unemployed (millions)	0.99	0.71	0.68	0.61
Population (millions)	20.75	21.48	21.82	22.02
Unemployment rate (%)	9.34	5.33	5.03	4.47

Unemployment rate 2012 = $\frac{0.99}{12.5 + 0.99}$ × 100 = 9.34

$\frac{\text{unemployment}}{\text{labor force (unem + em)}}$

2013 = $\frac{0.71}{12.6 + 0.71}$ × 100 = 5.33

Inflation rate 2014 = $\frac{102.51 - 100.55}{100.55}$ × 100 = 1.95

$\frac{CPI_{new} - CPI_{old}}{CPI_{old}}$

2015 = $\frac{107.52 - 102.51}{102.51}$ × 100 = 4.89

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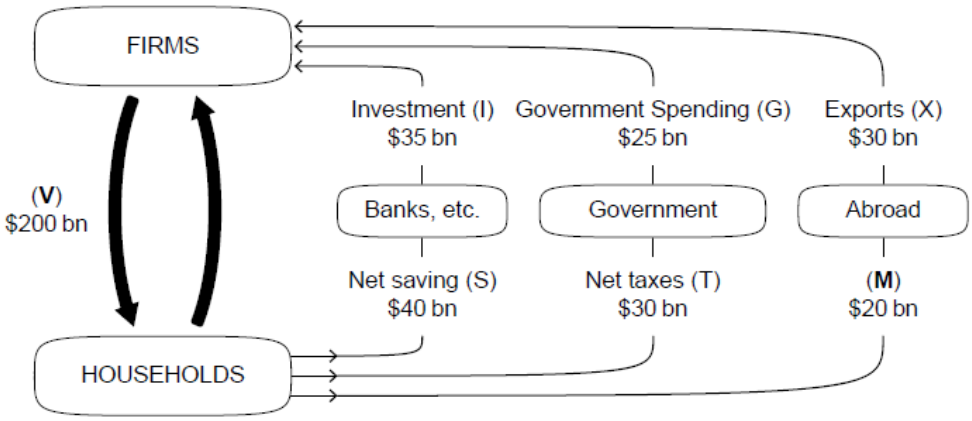
Question 3 Calculate GDP and GNP. You must show your work.

Item	$ billion
Imports M	289
Transfer payments	253
Saving	82
Exports X	234
Income from employment	1160
Taxation	396
Consumer spending C	745
Investment I	229
Net factor income from abroad	–111
Government spending on goods and services G	437

GDP = C + I + G + (X - M) = 745 + 229 + 437 + 234 - 289 = 1356

GNP = GDP + NFFI = 1356 - 111 = 1245

Question 4 Answer the following questions.



4.1 What do the flows (V) and (M) represent?

V represent income, M represent import

4.2 Does the government run a budget deficit or surplus? By how much?

Budget surplus by 5 bin

4.3 Does the country run a trade deficit or surplus? By how much?

Trade surplus by 10

4.4 Is the economy in equilibrium? Why or why not?

Yes because leakages = injection

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Question 5 Why does CPI tend to be higher than GDP deflator?

Year	Consumer price index (CPI)	GDP deflator	GDP ($ million)
2014	100	100	4465
2015	105.35	105.11	4814
2016	109.21	108.92	5026

The GDP price deflator is a more comprehensive inflation measure than the CPI index because it isn't based on a fixed basket of goods.

Question 6 Answer the following questions.

	Price per unit in dollars ($)	
	2013	2014
Pizza	12.50	12.90
Chocolate milk (litres)	1.15	1.25
Jazz concert	45.00	46.00
Total cost of the typical basket	58.65	60.15

The typical basket of goods purchased by an average consumer consists of 10 pizzas, 100 litres of chocolate milk and 10 jazz concerts.

6.1 With 2013 as the base year, calculate CPI of 2013 and 2014.

$$CPI\ 2013 = \frac{58.65}{58.65} \cdot 1$$

$$CPI\ 2014 = \frac{60.15}{58.65} = 1.0256$$

6.2 Calculate the inflation rate of 2014.

$$\text{Inflation rate } 2014 = \frac{60.15 - 58.65}{58.65} \times 100 = 2.557$$

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Question 7 Fill in the blanks. You must show your work.

Year	Nominal GDP ($ billions)	GDP deflator	Real GDP ($ billions)	Annual real growth rate (%)	Population	Real GDP per capita ($)
2014	308.12	98.9	311.55		13273644	23,471.1
2015	321.99	100	321.99	3.35	13340012	24137.16
2016	332.65	102.2	325.49	1.09	13473412	24157.89

2014

GDP Deflator = $\frac{100 \times \text{Nominal}}{\text{Real}}$

$98.9 = \frac{100 \times 308.12}{\text{Real}}$

Real GDP = 311.55 billion

Real GDP Per capita = $\frac{311,547,017,189.1}{13293644}$

= 23,471.1 $

2015

GDP Deflator = $\frac{100 \times \text{Nominal}}{\text{Real}}$

$100 = \frac{100 \times 321.99}{\text{Real}}$

Real GDP = 321.99 billion

Real GDP Per capita = $\frac{321,990,000,000}{13340012}$

= 24137.16 $

2016

GDP Deflator = $\frac{100 \times \text{Nominal}}{\text{Real}}$

$102.2 = \frac{100 \times 332.65}{\text{Real}}$

Real GDP = 325.49 billion

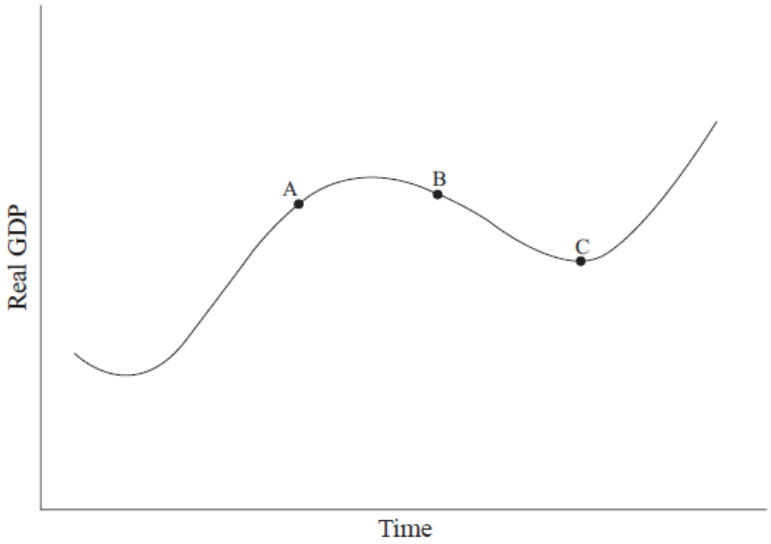
Real GDP per capita = $\frac{325,489,236,750.6}{13473412}$

= 24157.89

Annual real growth rate = $\frac{\text{New} - \text{old}}{\text{old}} \times 100$

= 3.35 %

Question 8 Based on the data above, which position – A, B, or C – best describes the economy in 2016? Why?



A → B means output > capacity

Unemployment rate < Natural rate of employment

∴ Structural, friction, seasonal unemployment gets job

B → C means output < capacity

Unemployment > Natural rate of employment

∴ cyclical unemployment gets job

Student ID: 6302441126

Question 9 Answer the following questions.

Country A is a closed economy with no government. The marginal propensity to save in the country is 0.25.

9.1 Calculate the value of the (investment) multiplier.

Investment multiplier = $\frac{1}{1-MPC}$ = $\frac{1}{1-0.25}$ = $\frac{1}{0.75}$

9.2 Due to the initial investment made by firms and the multiplier effect, the (equilibrium) output in the economy has increased by $200m. Calculate the value of the initial investment.

$200 = X\left(\frac{1}{0.75}\right)$ ∴ Initial investment is 150

$150 = X$

Country B is an open economy with government.

9.3 Do you think the multiplier effect in Country B will be larger than that of Country A? Why or why not?

Yes because MPC will increase → Multiplier will larger