Student ID: 6309691027

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

Year	2014	2015
Nominal gross national income (GNI) ($ billion) GNI	291.53	319.56
Factor income sent abroad ($ billion) X	68.30	75.90
Factor income earned abroad ($ billion) M	8.13	9.49
Nominal gross domestic product (GDP) ($ billion)	351.7	358.97
GDP deflator = $\frac{NGDP}{RGDP} \times 100$	100	100.88
Real GDP ($ billion)	351.7	335.84

2015; $GDP_{deflator} = \frac{NGDP}{RGDP} \times 100$

$\frac{GDP_{deflator}}{100} = \frac{NGDP}{RGDP}$

$\frac{100.88}{100} = \frac{358.97}{RGDP}$

$RGDP_{2015} = 355.84$

2014; $GDP_{deflator} = \frac{NGDP}{RGDP} \times 100$

$100 = \frac{351.7}{RGDP} \times 100$

$RGDP = 351.7$

$GNP = GDP + NFFI$

$= 358.97 + (9.49 - 75.9)$

$= 319.56$

$GDP = GNP - NFFI$

$= 291.53 - (8.13 - 68.3)$

$= 351.7$

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

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 (%)	7.34	5.33	5.03	4.47

- $Inflation\ rate_{2014} = \frac{CPI_{2014} - CPI_{2013}}{CPI_{2013}} \times 100 = \frac{102.51 - 100.55}{100.55} \times 100 = 1.95$
- $Inflation\ rate_{2015} = \frac{CPI_{2015} - CPI_{2014}}{CPI_{2014}} \times 100 = \frac{107.52 - 102.51}{102.51} \times 100 = 4.89$
- $Unemployment\ rate_{2012} = \frac{Unemployed_{2012}}{employed_{2012} + unemployed_{2012}} \times 100 = \frac{0.99}{12.5 + 0.99} \times 100 = 7.34$
- $Unemployment\ rate_{2013} = \frac{Unemployed_{2013}}{employed_{2013} + unemployed_{2013}} \times 100 = \frac{0.71}{12.6 + 0.71} \times 100 = 5.33$

Student ID:.....

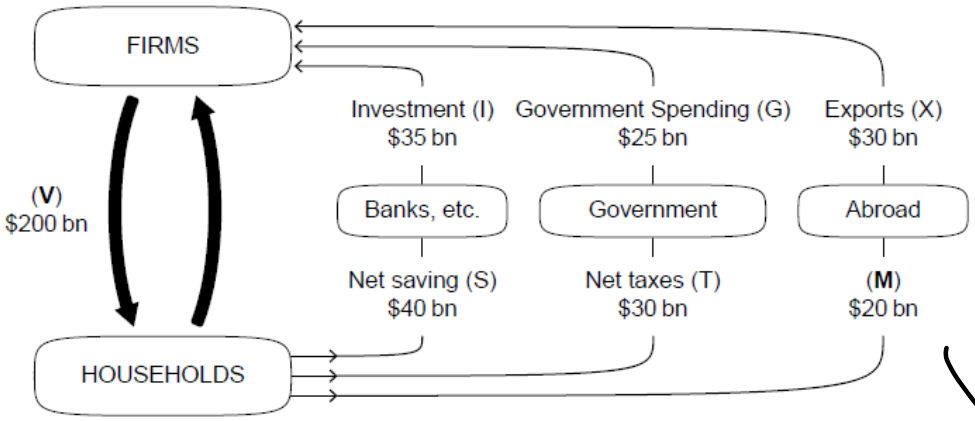
Question 3 Calculate GDP and GNP. You must show your work.

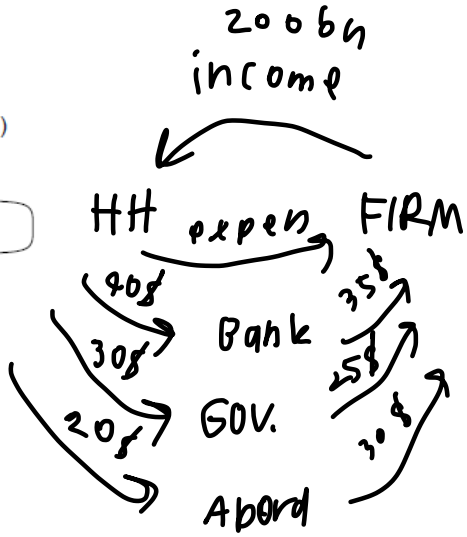
Item	$ billion
Imports	289
Transfer payments	253
Saving	82
Exports	234
Income from employment	1160
Taxation	396
Consumer spending	745
Investment	229
Net factor income from abroad	–111
Government spending on goods and services	437

GDP = C + I + G + (X − M)
= 745 + 229 + 437 + 234 − 289
= 1,356

GNP = GDP + Net Foreign factor income
= 1356 − 111
= 1245

Question 4 Answer the following questions.





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

V = Income , M = Import

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

Deficit by $5 bn

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

Surplus by $10 bn

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

Equilibrium because aggregate expenditure = Aggregate output

Student ID:.....

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

P ↑ Q ↓

CPI focus on consumer goods, GDP deflator focus on all goods in the economy. CPI has fixed quantity and does not count new products but GDP deflator measure overall price level and count new product. when price change which effect quantity so GDP deflator will be less than CPI berause in CPI Q is fixed. but in GDP deflator Q does not fixed

Question 6 Answer the following questions.

	Price per unit in dollars ($)	
base.	2013	2014
Pizza	12.50 x10	12.90 x10
Chocolate milk (litres)	1.15 x100	1.25 x100
Jazz concert	45.00 x10	46.00 x10
Total cost of the typical basket	690	719

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

$$CPI = \frac{\text{market Basket in Desired year}}{\text{market Basket in Base year}} \times 100$$

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

$CPI_{2013} = \frac{690}{690} \times 100 = 100$

$CPI_{2014} = \frac{719}{690} \times 100 = 103.48$

6.2 Calculate the inflation rate of 2014.

$$\text{inflation rate}_{2014} = \frac{CPI_{2014} - CPI_{2013}}{CPI_{2013}} \times 100 = \frac{103.48 - 100}{100} \times 100 = 3.48\%$$

Student ID:.....

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		13 273 644	0.0000235
2015	321.99	100	321.99	3.35	13 340 012	0.0000241
2016	332.65	102.2	325.49	1.09	13 473 412	0.0000242

RGDP per capita = RGDP / POP.

2014; GDP deflator = $\frac{NGDP}{RGDP} \times 100$

$98.9 = \frac{308.12}{RGDP} \times 100$

$RGDP\ 0.989 = 308.12$

$RGDP = 311.55$

2015; $100 = \frac{321.99}{RGDP} \times 100$

$RGDP(1) = 321.99$

$RGDP = 321.99$

2016; $102.2 = \frac{332.65}{RGDP} \times 100$

$RGDP = 325.49$

2015; $RGDP_{growth\ rate} = \frac{RGDP_{2015} - RGDP_{2014}}{RGDP_{2014}} \times 100$

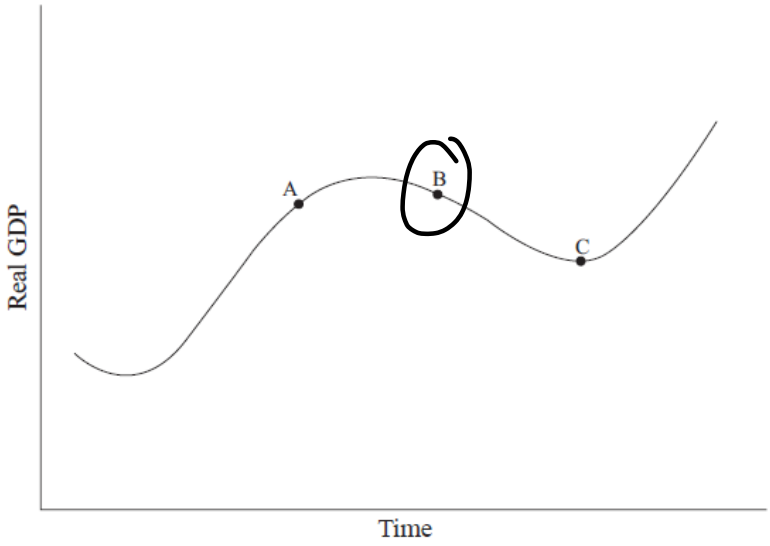
$= \frac{321.99 - 311.55}{311.55} \times 100$

$= 3.35\ \%$

2016; $RGDP_{growth\ rate} = \frac{325.49 - 321.99}{321.99} \times 100$

$= 1.09\ \%$

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



B because In 2016, RGDP is highest compare to 2014 and 2015

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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.

mpc + mps = 1

mpc = 1 − 0.25 = 0.75

$\frac{\Delta Y}{\Delta I} = \frac{1}{1-mpc} = \frac{1}{1-0.75} = 4$

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.

when Y increase 1, I increase 1 → if Y increase 4, I increase 4

Y increase 200, I increase 50. : when Y increase by 200 unit

I increase by 50 unit

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?

Country B is smaller than A because Country B have government which mean that we need to pay tax and when we pay tax the income will be less. So the multiplier effect will be loss than Country A. (close economy)