15.1 Definition of Gross Domestic Product (GDP)

1. Gross domestic product (GDP) is the total market value of production of all resident producing units of a country or an economic territory in a given period.

2. Explain whether each of the following items should be included in the calculation of GDP.

(a) Dividends

Yes, because dividends represent the return to shareholders on production activities.

(b) Value of second-hand goods

No, because these goods are not involved in the production of the current period. Their value was included in the GDP of the period in which they were produced or sold for the first time.

(c) Middleman charges paid for the transaction of second-hand goods

Yes, because the charges reflect the value of services provided by the middleman in the current period.

(d) Capital gains

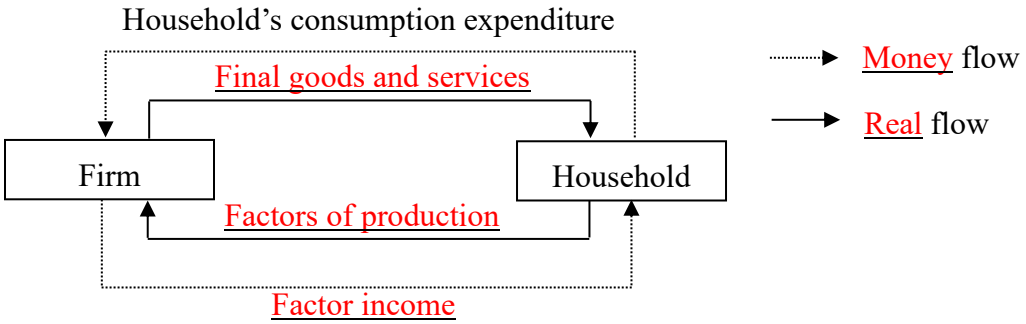
No, because it is not a result of production.

(e) Transfer payments

No, because no production is involved.

15.2 Calculation of GDP

3. The diagram below is the circular flow diagram of a closed economy. Fill in the blanks.



According to the circular flow diagram, the total market value of production, total expenditure and total income are theoretically the same.

4. Under the production approach, GDP is equal to the sum of value added of all resident producing units in a given period of time, in which

Value added = Gross value of output – Value of intermediate consumption

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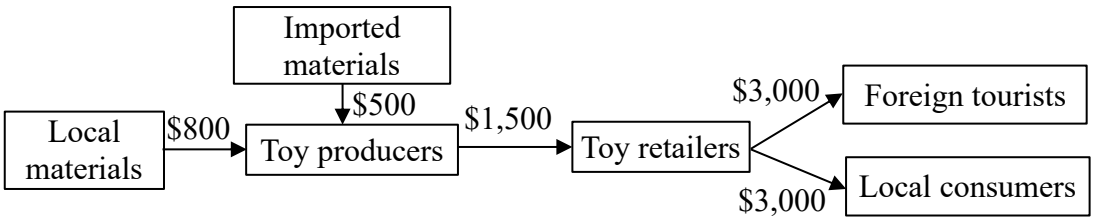
5. The following diagram shows a production chain of a good in an economy.



Calculate the contribution of the above production chain to the GDP using the value added approach. Show your working.

($3,000 + $3,000 – $1,500) + ($1,500 – $500 – $800) + $800 = $5,500

6. Under the expenditure approach, GDP can be calculated using the following formula:

GDP = Private consumption expenditure + Gross investment + Government consumption expenditure + Net exports

15.3 GDP at Market Prices and GDP at Factor Cost

7. (a)

GDP at market prices = GDP at factor cost + Indirect taxes – Subsidies

(b) If indirect taxes are higher than subsidies, GDP at market prices will be higher than GDP at factor cost.

8. Refer to the following table.

Component	$ million
Private consumption expenditure	200
Gross domestic fixed capital formation	120
Changes in inventories	–30
Government consumption expenditure	150
Total exports of goods and services	100
Total imports of goods and services	130
Indirect taxes	60
Subsidies	40

(a) Calculate the GDP at market prices. Show your working.

$(200 + 120 – 30 + 150 + 100 – 130) million = $410 million

(b) Calculate the GDP at factor cost. Show your working.

$(410 – 60 + 40) million = $390 million

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