NCERT SOLUTIONS

CLASS - 12th

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Subject : Economics

Chapter : 2

Chapter Name : National Income Accounting

Q1 What are the four factors of production and what are the remunerations to each of these called?

Answer. The four factors of production are explained below -
Land - It includes all types of natural resources like mountains, lakes, trees etc. It is an immobile resource. The remuneration paid for the land is in the form of rent.
Labour - All types of physical or mental exercise done by the humans for producing goods and services is termed as labour. The remuneration given to them are in the form of wages.
Capital - The amount of money invested by the businessman in his business to run its operations and earn a return on it. The remuneration is in the form of interest.
Entrepreneur - He is the person who invests money and is interested in the production of goods and services. He gets his remuneration in the form of profits of the business.

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Q2 Why should the aggregate final expenditure of an economy be equal to the aggregate factor payments? Explain.

Answer. In an economy, the aggregate final expenditure should be equal to the aggregate payments made to the factors of production. The total revenue earned by the firm is distributed among the factors in the form of rent, interest, wages and profits. If it isn't distributed among them, then the investment made by the households will reduce and thus the businesses will not grow. So there must be a balance between the aggregate factor payments and aggregate expenditure.

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Q3 Distinguish between stock and flow. Between net investment and capital which is a stock and which is a flow? Compare net investment and capital with flow of water into a tank.

Answer.

Stock	Flow
Stock concept is used to measure a particular quantity at a point of time.	Flow concept is used to measure a quantity over a period of time.
It doesn't have any time dimensions within which a quantity is measured.	It has a specific time dimension which may vary in every case and range from
For example - capital as on 31st March, 2019 was ₹5 lacs.	profits for the year ended 31st March, 2019 were ₹10 lacs.

The capital is the stock concept while the net investments is the flow concept.
We can understand it by taking the example of water in the tank. The level of water in the tank at sharp 4 pm was 2000 litre. This is stock and similar to capital. Now, if we fill or empty the tank, then the water level will rise/fall. This is the nature of the investments made into the business during the year.

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Q4 What is the difference between planned and unplanned inventory accumulation? Write down the relation between change in inventories and value added of a firm.

Answer. A firm generally don't sell all its produce during the year. Hence, it carries forward some stock to the next year. This is known as inventory accumulation.
Let us take an example. A firm plans to increase its inventory from 4000 to 5000 pieces of shirts. For this purpose, it produces 1000 units extra. Let the original production was 14000 pieces, so it will now produce 15000 units of shirts.
Now, let the sales be 14000 units.
Closing inventory = opening inventory + production - sales
= 4000 + 15000 - 14000
= 5000 units.
So it is planned accumulation of inventory as it is equal to what was planned.
But it the sales in this case would reduce down to 13000 units, then 1000 units more will get accumulated. This will be unplanned inventory.
As the name suggests, planned accumulation means the accumulation of inventory which is planned by the firm.
Unplanned inventory accumulation takes place when due to some unexpected market situations, the sales of the firm grows or contracts.
The gross value added by the firm can be calculated as under -
Gross value added = Sales + change in inventory - value of intermediate goods.

Intermediate goods are the goods which are used in the production process. The change in inventory is the difference between the opening stock and closing stock.

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Q5 Write down the three identities of calculating the GDP of a country by the three methods. Also briefly explain why each of these should give us the same value of GDP.

Answer. The three identities of the calculation of GDP of a country are as follows -

1. Income method - Under this method, we calculate the income from various factors of production.

Hence GDP = total wages and salaries + total profits earned + total rent earned + total interest on the capital earned

2. Value added or product method - It calculates the net value added by individual firm and combines it to get GDP.

Gross value added = Production during the year - value of intermediate goods.
Net value added = Gross value added - Depreciation charged on the assets.

3. Expenditure method - It takes into consideration total expenditure made during a year. It can be calculated as under -

GDP = Total final consumption by households + Total investment expenditure by the firms + Total government expenditure + Net exports.
Net exports means exports less imports.
All the methods give the same value because in an economy, total expenditure is always equal to the consumption and investment. Production in an economy is equal to the consumption or the investment. Hence all the methods give the value of GDP equal.
What the industry will produce in an economy will be the consumption of the households and government sector. The total consumption by households and the government will be paid so it will be equal to the total expenditure in an economy in one financial year.

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Q6 Define budget deficit and trade deficit. The excess of private investment over saving of a country in a particular year was Rs 2,000 crores. The amount of budget deficit was (–) Rs 1,500 crores. What was the volume of trade deficit of that country?

Answer. The budgetary deficit refers to the situation when the expenses of the government are more than its receipts during a financial year.
Trade deficit refers to the situation when the imports are more than exports in an economy in a financial year.
Given that the budget deficit = (-) 1500 crores and the difference between investment and savings is 2000 crores.
So trade deficit = Budget deficit + (Investment - Savings)
= 2000 +(-1500) = 500 crores.

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Q7 Suppose the GDP at market price of a country in a particular year was Rs 1,100 crores. Net Factor Income from Abroad was Rs 100 crores. The value of Indirect taxes – Subsidies was Rs 150 crores and National Income was Rs 850 crores. Calculate the aggregate value of depreciation.

Answer. GDP at market prices = 1100 crores.
So to find GNP, we have to add net factor income from abroad to it.
GNP = 1100 + 100 = 1200 crores.
NNP at factor cost = GNP at market price - depreciation(Let D) - net indirect taxes = National Income
${NNP}_{FC}$= 1200 - D - 150 = 850(given)
1050 - D = 850
So, Depreciation = 200 crores.

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Q8 Net National Product at Factor Cost of a particular country in a year is Rs 1,900 crores. There are no interest payments made by the households to the firms/government, or by the firms/government to the households. The Personal Disposable Income of the households is Rs 1,200 crores. The personal income
taxes paid by them is Rs 600 crores and the value of retained earnings of the firms and government is valued at Rs 200 crores. What is the value of transfer payments made by the government and firms to households?

Answer. Net national product at factor cost or national income = 1900 crores.
We can calculate the value of transfer payments using the following formula -
Personal disposable income - ${NNP}_{FC}$+ Retained earnings of firms and government + Personal taxes = Value of transfer payments
Value of transfer payments = 1200 - 1900 + 200 + 600 crores = 100 crores.
Hence the value of transfer payments is ₹100 crores.

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Q9 From the following data, calculate Personal Income and Personal Disposable Income.

	Rs (crore)
(a) Net Domestic Product at factor cost	8,000
(b) Net Factor Income from abroad	200
(c) Undisbursed Profit	1,000
(d) Corporate Tax	500

(e) Interest Received by Households	1,500
(f) Interest Paid by Households	1,200
(g) Transfer Income	300
(h) Personal Tax	500

Answer. Personal Income can be calculated using the following formula -
PI = NDP_{FC} + Net factor income from abroad - Undisbursed profits - corporate tax + Interest received by households - Interest paid by households + Transfer income
= 8000 + 200 - 1000 - 500 + 1500 - 1200 +300
= ₹7300 crores.
Personal disposable income = personal income - personal tax = 7300 - 500 = ₹ 6800 crores.

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Q10 In a single day Raju, the barber, collects Rs 500 from haircuts; over this day, his equipment depreciates in value by Rs 50. Of the remaining Rs 450, Raju pays sales tax worth Rs 30, takes home Rs 200 and retains Rs 220 for improvement and buying of new equipment. He further pays Rs 20 as income tax from his income. Based on this information,complete Raju's contribution
to the following measures of income (a) Gross Domestic Product (b) NNP at market price (c) NNP at factor cost (d) Personal income (e) Personal disposable income.

Answer. Gross Domestic Product at market price $\left({GDP}_{MP}\right)$ for Raju will be ₹500.
${NNP}_{MP}={GDP}_{MP}$ - Depreciation
$= 500 - 50$
= ₹450
${NNP}_{FC}={NNP}_{MP}$ - Net indirect taxes
$= 450 - 30$
=₹ 420
Personal income = ${NNP}_{FC}-$Retained earnings
$= 420 - 220$
= ₹ 200.
Personal disposable income = Personal income - Personal tax
= 200 - 20 = ₹180.

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Q11 The value of the nominal GNP of an economy was Rs 2,500 crores in a particular year. The value of GNP of that country during the same year, evaluated at the
prices of same base year, was Rs 3,000 crores. Calculate the value of the GNP deflator of the year in percentage terms. Has the price level risen between the
base year and the year under consideration?

Answer. GNP deflator can be calculated using the following formula-

GNP Deflator = Nominal GNP $\times \dfrac{100}{Real GNP}$

$= 2500 \times \dfrac{100}{3000}$

= 83.33%

Since the GNP deflator is showing a value which is less than 100, hence the prices have fallen year under consideration as compared to the base year.

The fall in prices = 100 - 83.33 = 16.67%

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Q12 Write down some of the limitations of using GDP as an index of welfare of a country.

Answer. GDP is used to measure the income of an economy during a particular year. But it has certain limitations which are as under -

1. **Measures only monetary transactions -**
   The GDP takes into consideration only those transactions which can be measured in monetary terms. It ignores all those transactions which aren't measured in monetary terms. There are many transactions in an economy which affects the GDP but aren't valued in money terms. Hence,they are ignored while measuring GDP.
2. **Cost of living index -** GDP don't take into consideration the general rise in the price levels of the commodities. Due to this rise, the standard of living of people decreases and hence, the true welfare cannot be measured.
3. **Negative externalities -** Externalities are the external trends which may affect the economy. These can be positive or negative. The negative trends like disasters or pollution may hamper the growth of economy,which isn't considered under GDP.
4. **Distribution of Income -** In a country like India, most of the income lies in the hands of rich people and the poor becomes poorer. This gap between the rich and poor isn't cons under GDP, thereby ignoring the welfare of the poor people.

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