

## National Income

### INTRODUCTION

#### NATIONAL INCOME : MEANING

National Income means the total money value of all final goods and services produced in a country during a particular period of time (one year).

#### IMPORTANCE OF NATIONAL INCOME ESTIMATES:

❖ Indicator of Economic Progress;	❖ Significance for Trade Unions;
❖ Measure of Economic Growth;	❖ Knowledge of Structural Changes;
❖ Comparison with other Countries;	❖ Signification for Economic Analysis, etc.
❖ Significance in Business Policy Making;	

#### ACCOUNTING YEAR:

The financial year which the flow of income in an economy is recorded.

#### FINAL GOODS:

Goods which directly satisfies human wants.

#### INTERMEDIATE GOODS:

Goods which are used in the production process to produce other goods.

#### PER CAPITA INCOME:

This is the average income of the citizens of a country obtained after dividing national income by living population.

#### SUBSIDIES:

economic assistance given to the producing unit by the state for compensating the cost of product so that it is available to consumers at affordable prices.

#### AGGREGATES RELATED TO NATIONAL INCOME:

Gross National Product (GNP), Net National Product (NNP), Gross and Net Domestic Product (GDP and NDP) – at market price, at factor cost; National Disposable Income (gross and net), Private Income, Personal Income and Personal Disposable Income; Real and Nominal GDP.

**TERM AND THEIR EQUATIONS**

$$\begin{aligned} \text{Gross Domestic Product at Market Price (GDP}_{\text{MP}}); \text{GDP}_{\text{MP}} &= C + I + G \\ \text{Gross Nation Product at Market Price (GNP}_{\text{MP}}); \text{GNP}_{\text{MP}} &= \text{GDPMP} + \text{NFIA} \\ \text{Net Domestic Product at Market Price (NDP}_{\text{MP}}); \text{NDP}_{\text{MP}} &= \text{GDPMP} - D \\ \text{Net Nation Product at Market Price (NNP}_{\text{MP}}); \text{NNP}_{\text{MP}} &= \text{GNPMP} - D \\ \text{Gross Domestic Product at Factor Cost (GDP}_{\text{FC}}); \text{GDP}_{\text{FC}} &= \text{Domestic Factor Income} \\ &\quad + \text{Consumption of Fixed Capital} \end{aligned}$$

Or

$$\text{GDP}_{\text{FC}} = \text{GDP}_{\text{MP}} - \text{IT} + S$$

$$\text{Gross Nation Product at Factor Cost (GNP}_{\text{FC}}); \text{GNP}_{\text{FC}} = \text{GNP}_{\text{MP}} - \text{IT} + S$$

Or

$$\text{GNP}_{\text{FC}} = \text{Domestic Factor Income} + \text{NFIA} + \text{Consumption of fixed capital.}$$

$$\text{Net Domestic Product at Factor Cost (NDP}_{\text{FC}}); \text{NDP}_{\text{FC}} = \text{NDP}_{\text{MP}} - \text{IT} + S$$

$$\text{Net Nation Product at Factor Cost (NNP}_{\text{FC}}); \text{NNP}_{\text{FC}} = \text{NDP}_{\text{FC}} + \text{NFIA}$$

Or

$$\text{NNP}_{\text{FC}} = \text{Net Domestic Income} + \text{NFIA}$$

$$\text{Personal Income; Personal Income} = \text{Private Income} - \text{Corporate Taxes} - \text{Corporate Savings}$$

$$\text{Personal Disposable Income} = \text{Personal Income} - (\text{Direct Taxes} + \text{Fines, Fees, etc.} + \text{Social Security Contributions by Employees})$$

$$\text{Net National Disposable Income} = \text{National Income} + \text{Net Indirect Taxes} + \text{Net Capital Transfers from the rest of the World}$$

$$\text{Gross Domestic Saving} = \text{Personal Savings} + \text{Private Corporate Savings} + \text{Public Savings.}$$

$$\text{PCI} = (\text{National Income (NNP at Factor Cost)}) / \text{Population}$$

$$\text{GDP Deflator} = (\text{Nominal GDP}) / (\text{Real GDP}) \times 100$$

**VARIOUS METHODS / APPROACHES OF CALCULATION OF NATIONAL INCOME**

GDP - By Sum of Spending, Factor Incomes or Output		
GDP Expenditure	GDP (Factor Incomes )	GDP (Value of Output)
<ul style="list-style-type: none"> <li>• consumption</li> <li>• Government spending</li> <li>• Investment spending</li> <li>• Change in value of STOCKS</li> <li>• Exports</li> <li>• Imports</li> <li>• = GDP (known as aggregate demand)</li> </ul>	<ul style="list-style-type: none"> <li>• Income form people in jobs and in self employment (e.g wages and salaries)</li> <li>• Profits of private sector businesses</li> <li>• Rent income from the ownership of land</li> </ul>	<ul style="list-style-type: none"> <li>• Value added from each of the main economic sectors</li> <li>• These sectors are</li> <li>• Primary</li> <li>• Secondary</li> <li>• Manufacturing</li> <li>• Quaternary</li> </ul>

## BOOK EXERCISE QUESTIONS - MULTIPLE CHOICE QUESTIONS

### PART - A

1. **Net National product at factor cost is also known as**  
(a) National Income  
(b) Domestic Income  
(c) Per capita Income  
(d) Salary.
2. **Primary sector is .....**  
(a) Industry (b) Trade  
(c) Agriculture (d) Construction.
3. **National income is measured by using ..... methods.**  
(a) Two (b) Three  
(c) Five (d) Four
4. **Income method is measured by summing up of all forms of .....**  
(a) Revenue (b) Taxes  
(c) expenditure (d) Income
5. **Which is the largest figure?**  
(a) Disposable income  
(b) Personal Income  
(c) NNP  
(d) GNP
6. **Expenditure method is used to estimate national income in .....**  
(a) Construction sector  
(b) Agricultural Sector  
(c) Service sector  
(d) Banking sector
7. **Tertiary sector is also called as ..... sector**  
(a) Service (b) Income  
(c) Industrial (d) Production
8. **National income is a measure of the ..... performance of an economy.**  
(a) Industrial (b) Agricultural  
(c) Economic (d) Consumption
9. **Per capita income is obtained by dividing the National income by .....**  
(a) Production  
(b) Population of a country  
(c) Expenditure  
(d) GNP
10. **GNP = ..... + Net factor income from abroad.**  
(a) NNP (b) NDP  
(c) GDP (d) Personal income
11. **NNP stands for .....**  
(a) Net National Product  
(b) National Net product  
(c) National Net Provident  
(d) Net
12. **..... is deducted from gross value to get the net value.**  
(a) Income (b) Depreciation  
(c) Expenditure (d) Value of final goods

13. The financial year in India is .....
- April 1 to March 31
  - March 1 to April 30
  - March 1 to March 16
  - January 1 to December 31
14. When net factor income from abroad is deducted from NNP, the net value is
- Gross National Product
  - Disposable Income
  - Net Domestic Product
  - Personal Income
15. The value of NNP at production point is called .....
- NNP at factor cost
  - NNP at market cost
  - GNP at factor cost
  - Per capita income
16. The average income of the country is ....
- Personal Income
  - Per capita income
  - Inflation Rate
  - Disposal Income
17. The value of national income adjusted for inflation is called ....
- Inflation Rate
  - Disposal Income
  - GNP
  - Real national income
18. Which is a flow concept ?
- Number of shirts
  - Total wealth
  - Monthly income
  - Money supply
19. PQLI is the indicator of .....
- Economic growth
  - Economic welfare
  - Economic progress
  - Economic development
20. The largest proportion of national income comes from .....
- Private sector
  - Local sector
  - Public sector
  - None of the above

**Answers**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
a	c	b	d	d	a	a	c	b	c	a	b	a	c	a	b	c	c	b	a

## PART - B

Answer the following questions in one or two sentences

### 21. Define National Income.

According to Alfred Marshall, “The labour and capital of a country acting on its natural resources produce annually a certain net aggregate of commodities, material and immaterial including services of all kinds. This is the true net annual income or revenue of the country or national dividend”

### 22. Write the formula for calculating GNP.

GNP at Market Prices = GDP at Market Prices + Net Factor income from Abroad.

### 23. What is the difference between NNP and NDP?

Basis of Difference	NNP	NDP
Meaning	Net National Product refers to the value of the net output of the economy during the year. NNP is obtained by deducting the value of depreciation, or replacement allowance of the capital assets from the GNP.	NDP is the value of net output of the economy during the year. Some of the country's capital equipment wears out or becomes outdated each year during the production process.
Formula	$NNP = GNP - \text{depreciation allowance.}$	$\text{Net Domestic Product} = GDP - \text{Depreciation.}$

### 24. Trace the relationship between GNP and NNP.

Basis of Relationship	GNP	NNP
At Market price	GNP is the total measure of the flow of final goods and services at market value resulting from current production in a country during a year, including net income from abroad.	Net National Product refers to the value of the net output of the economy during the year. NNP is obtained by deducting the value of depreciation, or replacement allowance of the capital assets from the GNP.
Formula	$GNP \text{ at Market Prices} = GDP \text{ at Market Prices} + \text{Net Factor income from Abroad.}$	$NNP = GNP - \text{depreciation allowance.}$

**25. What do you mean by the term 'Personal Income'?**

- ❖ Personal income is the total income received by the individuals of a country from all sources before payment of direct taxes in a year.
- ❖ Personal income is never equal to the national income, because the former includes the transfer payments whereas they are not included in national income.
- ❖  $\text{Personal Income} = \text{National Income} - (\text{Social Security Contribution and undistributed corporate profits}) + \text{Transfer payments}$

**26. Define GDP deflator.**

- ❖ GDP deflator is an index of price changes of goods and services included in GDP.
- ❖ It is a price index which is calculated by dividing the nominal GDP in a given year by the real GDP for the same year and multiplying it by 100.

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

**27. Why is self-consumption difficult in measuring national income?**

- ❖ Farmers keep a large portion of food and other goods produced on the farm for self-consumption.
- ❖ The problem is whether that part of the produce which is not sold in the market can be included in national income or not.

**PART - C****Answer the following questions in one Paragraph.****28. Write a short note on per capita income.**

- ❖ The average income of a person of a country in a particular year is called Per Capita Income. Per capita income is obtained by dividing national income by population.
- ❖  $\text{Per Capita income} = \text{National Income} / \text{Population}$ .

**29. Differentiate between personal and disposable income.**

Basis of Difference	Personal Income	Disposable Income
Meaning	Personal income is the total income received by the individuals of a country from all sources before payment of direct taxes in a year.	Disposable Income is also known as Disposable personal income. It is the individuals income after the payment of income tax.

Basis of Difference	Personal Income	Disposable Income
<b>Implication</b>	Personal income is never equal to the national income, because the former includes the transfer payments whereas they are not included in national income.	This is the amount available for households for consumption.
<b>Formula</b>	Personal Income = National Income – (Social Security Contribution and undistributed corporate profits) + Transfer payments	Disposable Income = Personal income – Direct Tax. As the entire disposable income is not spent on consumption, Disposal income = consumption + saving.

**30. Explain briefly NNP at factor cost.**

- ❖ NNP refers to the market value of output.
- ❖ Whereas NNP at factor cost is the total of income payment made to factors of production.
- ❖ Thus from the money value of NNP at market price or NNI, we deduct the amount of indirect taxes and add subsidies to arrive at the net national income at factor cost.
- ❖  $\text{NNP at factor cost} = \text{NNP at Market prices} - \text{Indirect taxes} + \text{Subsidies}$ .

**31. Give short note on Expenditure method.**

- ❖ Under this method, the total expenditure incurred by the society in a particular year is added together.
- ❖ To calculate the expenditure of a society, it includes personal consumption expenditure, net domestic investment, government expenditure on consumption as well as capital goods and net exports.

**Symbolically,**

$$\text{GNP} = C + I + G + (X-M)$$

C - Private consumption expenditure

I - Private Investment Expenditure

G - Government expenditure

X-M = Net exports

**32. What is the solution to the problem of double counting in the estimation of national income?**

- ❖ To avoid double counting, either the value of the final output should be taken into the estimate of GNP or the sum of values added should be taken.
- ❖ Double counting is to be avoided under value added method.

- ❖ Any commodity which is either raw material or intermediate good for the final production should not be included.
- ❖ For example, value of cotton enters value of yarn as cost, and value of yarn in cloth and that of cloth in garments.
- ❖ At every stage value added only should be calculated.

### 33. Write briefly about national income and welfare

- ❖ National Income is considered as an indicator of the economic wellbeing of a country.
- ❖ The economic progress of countries is measured in terms of their GDP per capita and their annual growth rate.
- ❖ A country with a higher per capita income is supposed to enjoy greater economic welfare with a higher standard of living.
- ❖ But the rise in GDP or per capita income need not always promote economic welfare.

### 34. List out the uses of national income.

- i. To know the relative importance of the various sectors of the economy and their contribution towards national income
- ii. To formulate the national policies such as monetary policy, fiscal policy and other policies
- iii. To formulate planning and evaluate plan progress
- iv. To build economic models both in short - run and long - run.
- v. To make international comparison, inter - regional comparison and inter - temporal comparison of growth of the economy during different periods.

- vi. To know a country's per capita income which reflects the economic welfare of the country
- vii. To know the distribution of income for various factors of production in the country.
- viii. To arrive at many macro economic variables like Tax – GDP ratio.

### PART - D

**Answer the following questions in about a page.**

### 35. Explain the importance of national income.

National income is of great importance for the economy of a country. Nowadays the national income is regarded as accounts of the economy, which are known as social accounts.

**It enables us,**

9. To know the relative importance of the various sectors of the economy and their contribution towards national income; from the calculation of national income, we could find how income is produced, how it is distributed, how much is spent, saved or taxed.
10. To formulate the national policies such as monetary policy, fiscal policy and other policies; the proper measures can be adopted to bring the economy to the right path with the help of collecting national income data.
11. To formulate planning and evaluate plan progress; it is essential that the data pertaining to a country's gross income, output, saving and consumption from different sources should be available for economic planning.
12. To build economic models both in short -



run and long - run.

13. To make international comparison, inter - regional comparison and inter - temporal comparison of growth of the economy during different periods.
14. To know a country's per capita income which reflects the economic welfare of the country (Provided income is equally distributed)
15. To know the distribution of income for various factors of production in the country.
16. To arrive at many macro economic variables namely, Tax – GDP ratio, Current Account Deficit - GDP ratio, Fiscal Deficit - GDP ratio, Debt - GDP ratio etc.

### **36. Discuss the various methods of estimating the national income of a country.**

#### **Introduction**

- ❖ National Income can be computed at any of three levels, viz., production, income and expenditure.
- ❖ Accordingly, there are three methods that are used to measure national income.

1. Production or value added method
2. Income method or factor earning method
3. Expenditure method And if these methods are done correctly, the following equation must hold

$$\text{Output} = \text{Income} = \text{Expenditure}$$

#### **1 Product Method**

Product method measures the output of the country. It is also called inventory method.

Under this method, the gross value of output from different sectors like agriculture, industry, trade and commerce, etc., is obtained

for the entire economy during a year. The value obtained is actually the GNP at market prices. Care must be taken to avoid double counting.

#### **Steps Involved**

The value of the final product is derived by the summation of all the values added in the productive process. To avoid double counting, either the value of the final output should be taken into the estimate of GNP or the sum of values added should be taken.

#### **Precautions**

1. Double counting is to be avoided under value added method.
2. The value of output used for self consumption should be counted while measuring national income.
3. In the case of durable goods, sale and purchase of second hand goods (for example pre owned cars) should not be included.

#### **2. Income Method (Factor Earning Method)**

This method approaches national income from the distribution side. Under this method, national income is calculated by adding up all the incomes generated in the course of producing national product.

#### **Steps involved**

1. The enterprises are classified into various industrial groups.
2. Factor incomes are grouped under labour income, capital income and mixed income.
  - i) Labour income - Wages and salaries, fringe benefits, employer's contribution to social security.
  - ii) Capital income – Profit, interest, dividend and royalty
  - iii) Mixed income – Farming, sole proprietorship and other professions.
3. National income is calculated as domestic

factor income plus net factor incomes from abroad. In short,

$$Y = w + r + i + \pi + (R-P)$$

w = wages, r = rent, i = interest,  $\pi$  = profits,

### Precautions

#### Items not to be included

1. Transfer payments are not to be included in estimation of national income
2. The receipts from the sale of second hand goods should not be treated as part of national income
3. Windfall gains such as lotteries are also not to be included
4. Corporate profit tax should not be separately included

#### Items to be included

1. Imputed value of rent for self occupied houses or offices is to be included.
2. Imputed value of services provided by owners of production units (family labour) is to be included.

### 37. What are the difficulties involved in the measurement of national income?

#### 1 Transfer payments

Government makes payments in the form of pensions, unemployment allowance, subsidies, etc. These are government expenditure. But they are not included in the national income. Because they are paid without adding anything to the production processes.

#### 2 Difficulties in assessing depreciation allowance

The deduction of depreciation allowances, accidental damages, repair and replacement charges from the national income is not an easy task. It requires high degree of judgment to assess

the depreciation allowance and other charges.

#### 3. Unpaid services

A housewife renders a number of useful services like preparation of meals, serving, tailoring, mending, washing, cleaning, bringing up children, etc. She is not paid for them and her services are not directly included in national income. Such services performed by paid servants are included in national income.

#### 4 Income from illegal activities

Income earned through illegal activities like gambling, smuggling, illicit extraction of liquor, etc., is not included in national income.

#### 5 Production for self-consumption and changing price

Farmers keep a large portion of food and other goods produced on the farm for self consumption. The problem is whether that part of the produce which is not sold in the market can be included in national income or not.

#### 6 Capital Gains

The problem also arises with regard to capital gains. Capital gains arise when a capital asset such as a house, other property, stocks or shares, etc. is sold at higher price than was paid for it at the time of purchase. Capital gains are excluded from national income.

#### 7 Statistical problems

There are statistical problems, too. Great care is required to avoid double counting. Statistical data may not be perfectly reliable, when they are compiled from numerous sources.

### 38. Discuss the importance of social accounting in economic analysis.

#### National Income and Social Accounting

- ❖ National income is also being measured by the social accounting method.

- ❖ Under this method, the transactions among various sectors such as firms, households, government, etc., are recorded and their interrelationships traced.
- ❖ Social Accounting and Sector Under this method, the economy is divided into several sectors.
- ❖ A sector is a group of individuals or institutions having common interrelated economic transactions.

**The economy is divided into the following sectors**

(i) Firms, (ii) Households, (iii) Government, (iv) Rest of the world and (v) Capital sector.

**The Importance of social accounting are as follows:**

**(1) In Classifying Transactions:**

Economic activity in a country involves innumerable transactions relating to buying and selling, paying and receiving income, exporting and importing, paying taxes, etc. The great merit of social accounting lies in classifying and summarising these different kinds of transactions properly, and deriving from such aggregates.

**(2) In Understanding Economic Structure:**

Social accounting helps us to understand the structure of the body economic.

**(3) In Understanding Different Sectors and Flows:**

Social accounts throw light on the relative importance of the different sectors and flows in the economy. They tell us whether the contribution of the production sector, the consumption sector, the investment sector or the rest of the world sector is greater than the other sectors in the national accounts.

**(4) In Clarifying Relations between Concepts:**

Social accounts help in clarifying the relationships between such related concepts as net national product at factor cost and gross national product at market prices.

**(5) In Guiding the Investigator:**

Social accounts are a guide for the economic investigator by indicating the type of data which might be collected for analysing the behaviour of the economy.

**(6) In Explaining Trends in Income Distribution:**

Variations in the components of social accounts are a guide to the trends in income distribution within the economy.

**(7) In Explaining Movements in GNP:**

Movements in gross national product valued at constant prices and expressed per head of population indicate changes in the standard of living.

**(8) Provide a Picture of the Working of Economy:**

Social accounts provide an ex post picture of the working of the economy. Social accounts ensure consistency of forecasts, both internally and in relation to other known facts."

**(9) In Explaining Interdependence of Different Sectors of the Economy:**

Social accounts also provide an insight into the interdependence of the different sectors of the economy. This can be known from a study of the matrix of social accounts.

**(10) In Estimating Effects of Government Policies:**

The importance of social accounts lies in estimating the effects of government policies

on different sectors of the economy and in formulating new policies in keeping with changes in economic conditions, as revealed by national income accounts.

### Additional One marks

1. Who was the Nobel laureate first introduced the concept of national income?
  - a. Quasney                      b. Keynes
  - c. Simon Kuznets      d. Adam Smith
2. .... means the total money value of all final goods and services produced in a country during a particular period of time.
  - a. State Revenue
  - b. National Income
  - c. Local Expenditure
  - d. International Income
3. Find who said the following statement? "The labour and capital of a country acting on its natural resources produce annually a certain net aggregate of commodities, material and immaterial including services of all kinds"
  - a. Adam Smith              b. Alfred Marshall
  - c. Lionel Robins          d. Ricardo
4.  $(X - M)$  is net export which can be.....?
  - a. positive or negative
  - b. positive
  - c. negative
  - d. none of the above
5. Which of the following includes five types of final goods and services?
  - a. GNP                              b. GDP
  - c. NDP                              d. NNP
6. Find the missing term in the following equation.  
 NNP at factor cost = NNP at Market prices  
 -.....+ Subsidies.
  - a. Direct taxes
  - b. Income of residents
  - c. Income of residents abroad
  - d. Indirect taxes
7. Personal income is derived from national income by .....undistributed corporate profit, and employees' contributions to social security schemes and adding transfer payment.
  - a. adding                      b. deducting
  - c. multiplying              d. subtracting
8. Disposable Income is also known as.....?
  - a. Disposable private income
  - b. Disposable personal income
  - c. Deductible personal income
  - d. None of the above
9. Which of the following amount is available for households for their consumption?
  - a. Disposable Income
  - b. Personal Income
  - c. Per capita Income
  - d. None of above
10. GDP deflator is an .....of goods and services included in GDP
  - a. index of cost changes
  - b. index of GDP growth
  - c. index of price changes
  - d. index of wages

**11. Find the odd one out.**

- a. Production or value added method
- b. Deductive method
- c. Income method or factor earning method
- d. Expenditure method

**12. Double counting is to be avoided under.....**

- a. product method
- b. value added method
- c. income method
- d. expenditure method

**13. In the context of Labour income, which of the following is wrong?**

- a. Wages and salaries
- b. fringe benefits
- c. employer's contribution to social security
- d. state insurance

**14. Given the equation, which of the following is wrong?  $Y = w + r + i + \pi + (R-P)$**

- a.  $w$  = wages
- b.  $r$  = rent,
- c.  $i$  = interest
- d.  $\pi$  = income

**15. Windfall gains such as lotteries are also not to be included as they do not represent receipts from any ..... productive activity.**

- a. current
- b. previous
- c. future
- d. none of the above

**16. In case of transfer payments of nation income, expenditures towards payment incurred by the government like old age pension.....?**

- a. should be included
- b. should not be included
- c. both
- d. none

**17. Which one of the following is not a macro economic variables**

- a. Input – Output ratio
- b. Tax – GDP ratio
- c. Current Account Deficit - GDP ratio
- d. Fiscal Deficit - GDP ratio

**18. Find the incorrect one in the context of Income from illegal activities**

- a. gambling
- b. arbitration
- c. smuggling
- d. illicit extraction of liquor

**19. (i) Firms, (ii) Households, (iii) Government, (iv) Rest of the world and (v) Capital sector. are different elements of .....?**

- a. social accounting method
- b. private accounting method
- c. public accounting method
- d. social accounting model

**20..... refers to saving and investment activities?**

- a. Firm sector
- b. Household sector
- c. Capital sector
- d. Corporate sector

**21. “The Government sector” refers to the economic transactions of .....at all levels, centre, state and local?**

- a. firms
- b. public bodies

- c. society
- d. Non-governmental organisations

**22. Assertion (A) : National Income is considered as an indicator of the economic wellbeing of a country.**

**Reason (R) :** The economic progress of countries is measured in terms of their GDP per capita and their annual growth rate

- a. Both (A) and (R) are true and (R) is the correct explanation of (A).
- b. Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- c. (A) is true, but (R) is false.
- d. (A) is false, but (R) is true.

**23. Assertion (A) : Double counting is to be included under value added method.**

**Reason (R) :** Any commodity which is either raw material or intermediate good for the final production should not be included.

- a. Both (A) and (R) are true and (R) is the correct explanation of (A).
- b. Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- c. (A) is true, but (R) is false.
- d. (A) is false, but (R) is true.

**24. What is the formula for value of output?**

- a. Price x Quantity Sold
- b. Profit x Quantity Sold
- c. Revenue x Quantity Sold
- d. Cost x Quantity Sold

**25. What we can get by deriving the following equation? Private Final Consumption + Government Final Consumption Expenditure + Gross Domestic Capital Formation + Net Exports (Exports – Imports)**

- a. GNPMP
- b. NDPFP
- c. GDPMP
- d. NDPFP

**26. Find the incorrect match.**

a. Firms	Productive Activities
b. Households	Employment generation
c. Government	Public bodies
d. Capital sector	Savings and Investment

**27. Which one of the following doesn't include 'income of residents'?**

- a. GDP
- b. NNP
- c. GNP
- d. None of the above

**28. Remittances made by NRIs to India in the context of national income accounting is called as....?**

- a. Remittance Income
- b. NRI Income
- c. Factor Payments
- d. All of the above

**29. Who first introduced the concept of circular flow of income?**

- a. William Petty
- b. Adam Smith
- c. David Ricardo
- d. Francois Quesnay

**30. Which one of the following is roughly equal to national income?**

- a. GDP
- b. NNP
- c. GNP
- d. SDP

**31. Why do not the sale or purchase of used goods are not included in the GDP?**

- a. Used goods have only limited life
- b. Used goods are not fresh production
- c. Used goods are included in the previous GDP calculations
- d. All the above



**32. Investment is reckoned by which method for computing GDP:**

- a. Income Method
- b. Product method
- c. Expenditure Method
- d. Value added Method

**33. Inventories are unsold goods produced by a firm, then why do they are included in GDP?**

- a. Inventories represent value
- b. Inventories add to the stock of the firm
- c. They are purchases by the firm itself
- d. All the above

**34. The value of 'intermediate goods' are excluded from GDP calculation because:**

- a. It will increase the GDP unduly
- b. It results in double counting of same value
- c. Intermediate goods are not important
- d. All the above

**35. Value added at each stage of production means:**

- a. Value of output minus value of input
- b. Total value added by that stage
- c. Total value produced at that stage
- d. All of the above

**36. Imputed value of good is added to the GDP because:**

- a. Value of output minus value of input
- b. Total value added by that stage
- c. Total value produced at that stage
- d. All of the above

**37. GDP Deflator is also called as:**

- a. Implicit Cost Deflator
- b. GDP at Factor Cost
- c. Implicit Wage Deflator
- d. Implicit Price Deflator

**38. Personal Income includes:**

- a. Dividend distributed
- b. Social insurance contributions
- c. Corporate profit
- d. None of the above

**39. Disposable Income does not include:**

- a. Excise duty paid
- b. Income tax
- c. Customs duty paid
- d. None of the above.

**40 Assertion (A) : When Indian national income is expressed in terms of US\$, the former looks very low.**

**Reason (R) :** If Purchasing Power Parity (PPP) method is adopted India looks better.

- a. Both (A) and (R) are true and (R) is the correct explanation of (A).
- b. Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- c. (A) is true, but (R) is false.
- d. (A) is false, but (R) is true.

**41. Assertion (A) :The growth of an economy is measured by the rate at which its real national income grows over time.**

**Reason (R) :** National income thus serves as an instrument of economic planning.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is not the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

**42. Assertion (A) :Personal income is the total income received by the individuals of a country from all sources before payment of direct taxes in a year.**

**Reason (R) :**Personal income is never equal to the national income, because the former includes the transfer payments whereas they are not included in national income.

- Both A and R are true and R is the correct explanation of A.
- Both A and R are true but R is not the correct explanation of A.
- A is true but R is false.
- A is false but R is true.

**43. Assertion (A) :**Double counting is to be avoided under value added method.

**Reason (R) :**Any commodity which is either raw material or intermediate good for the final production should not be included.

- Both A and R are true and R is the correct explanation of A.
- Both A and R are true but R is not the correct explanation of A.
- A is true but R is false.
- A is false but R is true.

**44. Assertion (A) :**Transfer payments are not to be included in estimation of national income.

**Reason (R) :**These payments are not received for any services provided in the current year such as pension, social insurance etc.

- Both A and R are true and R is the correct explanation of A.
- Both A and R are true but R is not the correct explanation of A.
- A is true but R is false.
- A is false but R is true.

**45. Assertion (A) :**The receipts from the sale of second hand goods should not be treated as part of national income.

**Reason (R) :**They do create new flow of goods or services in the current year.

- Both A and R are true and R is the correct explanation of A.
- Both A and R are true but R is not the correct explanation of A.
- A is true but R is false.
- A is false but R is true.

**46. Assertion (A) :**The deduction of depreciation allowances, accidental damages, repair and replacement charges from the national income is not an easy task.

**Reason (R) :**It requires high degree of judgment to assess the depreciation allowance and other charges.

- Both A and R are true and R is the correct explanation of A.
- Both A and R are true but R is not the correct explanation of A.
- A is true but R is false.
- A is false but R is true.

**47. Assertion (A) :**National income by product method is measured by the value of final goods and services at current market prices.

**Reason (R) :**Economists calculate the real national income at a constant price level by the consumer price index.

- Both A and R are true and R is the correct explanation of A.
- Both A and R are true but R is not the correct explanation of A.
- A is true but R is false.
- A is false but R is true.



**48. Assertion (A) :National Income is considered as an indicator of the economic wellbeing of a country.**

**Reason (R) :**The economic progress of countries is measured in terms of their GDP per capita and their annual growth rate.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is not the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

**49. Which of the following is a better measure of economic development?**

- a. National income
- b. Rural consumption
- c. Size of exports
- d. Employment

**50. The market value of all final goods and services produced within domestic territory of the country during a year is known as-----**

- a.  $GDP_{MP}$
- b.  $GDP_{FC}$
- c.  $GNP_{MP}$
- d.  $GNP_{FC}$

**51. The money value of all final goods and services produced in the domestic territory of a country during a year plus Net factor income from abroad is called-----**

- a.  $GDP_{MP}$
- b.  $GDP_{FC}$
- c.  $GNP_{MP}$
- d.  $GNP_{FC}$

**52. The difference between the income received from abroad for rendering factor services by the normal residents of the country to the rest of the world and income paid for the factor services rendered by nonresidents in the domestic territory of a country is known as-----**

- a. Net Factor Income from Abroad

- b. Capital Consumption Allowances
- c. Depreciation
- d. None of these

**53. Net National Product at Factor Cost (NNPFC) is also known as-----**

- a. Net Factor Income from Abroad
- b. National Income
- c. National cost
- d. Net Indirect Tax.

**54. That part of personal income which is actually available to households for consumption and saving is called-----**

- a. National Disposable Income
- b. Personal Disposable Income
- c. Personal Income
- d. None.

**55. Real and nominal income is calculated respectively at-----**

- a. Current price and Constant Price
- b. Constant price and Current price
- c. Current price and Current price
- d. Constant price and Constant price.

**56. GDP Deflator is equal to-----**

- a.  $\frac{(\text{Nominal GDP})}{(\text{Real GDP})} \times 100$
- b.  $\frac{(\text{Real GDP})}{(\text{Nominal GDP})} \times 100$
- c.  $\frac{(\text{Nominal GNP})}{(\text{Real GNP})} \times 100$
- d.  $\frac{(\text{Nominal NDP})}{(\text{Real NDP})} \times 100$

57. Sum of all kinds of income received by the individuals from all sources is called-----

- Personal Income
- Private Income
- Personal Disposable Income
- None

58.  $GNP_{MP}$  is equal to

- $GDP_{MP} + NFIA$
- $GDP_{MP} - NFIA$
- $GDP_{MP} - D$
- None

59. Which of the following would be included in the income approach to measure GDP?

- Wages, profits, rents
- Wages, profits, investment spending
- Wages, rents, investment spending, consumption spending
- The value added in production

60. Match the correct codes

1	Simon Kuznets	i	Creator of GDP
2	Disposal income	ii	consumption + saving
3	NNP at factor cost	iii	NNP at Market prices – Indirect taxes + Subsidies
4	Y	iv	$w + r + i + \pi + (R-P)$

Codes

- (1) – (i) (2) – (ii) (3) – (iv) (4) – (iii)
- (1) – (ii) (2) – (iii) (3) – (iv) (4) – (i)
- (1) – (iv) (2) – (iii) (3) – (i) (4) – (ii)
- 1) – (i) (2) – (ii) (3) – (iv) (4) – (iii)

61. Match the correct codes

1	GNP	i	FC + Indirect Taxes - Subsidies
2	X-M	ii	MP - Indirect Taxes + Subsidies
3	MP	iii	$C + I + G + (X-M)$
4	FC	iv	Net exports

- (1) – (i) (2) – (ii) (3) – (iv) (4) – (iii)
- (1) – (ii) (2) – (iii) (3) – (iv) (4) – (i)
- (1) – (iv) (2) – (iii) (3) – (i) (4) – (ii)
- (1) – (i) (2) – (ii) (3) – (iii) (4) – (iv)

62. Match the correct codes

1	Net Indirect Taxes	i	Indirect tax – Subsidies
2	Value of Output	ii	Price x Quantity Sold
3	Relates to international economic transactions of the country.	iii	Households
4	Consuming entities and represent the factors of production, who receive payment for services rendered by them to firms.	iv	Rest of the world sector

Codes

- (1) – (i) (2) – (ii) (3) – (iv) (4) – (iii)
- (1) – (ii) (2) – (iii) (3) – (iv) (4) – (i)
- (1) – (iv) (2) – (iii) (3) – (i) (4) – (ii)
- (1) – (i) (2) – (ii) (3) – (iii) (4) – (iv)

63. Match the correct codes

1	The total measure of the flow of final goods and services at market value resulting from current production in a country during a year, including net income from abroad.	i	Per Capita Income
2	The market value of output.	ii	GNP

3	The total income received by the individuals of a country from all sources before payment of direct taxes in a year.	iii	NNP
4	The average income of a person of a country in a particular year.	iv	Personal income

### Codes

- (1) – (i) (2) – (ii) (3) – (iv) (4) – (iii)
- (1) – (ii) (2) – (iii) (3) – (iv) (4) – (i)
- (1) – (iv) (2) – (iii) (3) – (i) (4) – (ii)
- (1) – (i) (2) – (ii) (3) – (iii) (4) – (iv)

### 64. Match the correct codes

1	The output of the country.	i	Product Method
2	This method approaches national income from the distribution side.	ii	Income Method
3	Under this method, the total expenditure incurred by the society in a particular year is added together.	iii	Social Accounting
4	Under this method, the economy is divided into several sectors.	iv	Expenditure Method

### Codes

- (1) – (i) (2) – (ii) (3) – (iv) (4) – (iii)
- (1) – (ii) (2) – (iii) (3) – (iv) (4) – (i)
- (1) – (iv) (2) – (iii) (3) – (i) (4) – (ii)
- (1) – (i) (2) – (ii) (3) – (iii) (4) – (iv)

Answers									
1	2	3	4	5	6	7	8	9	10
c	b	b	a	a	d	b	b	a	c
11	12	13	14	15	16	17	18	19	20

b	b	d	d	a	b	a	b	a	c
21	22	23	24	25	26	27	28	29	30
b	b	d	a	c	b	d	c	d	a
31	32	33	34	35	36	37	38	39	40
d	c	c	b	a	b	d	a	b	b
41	42	43	44	45	46	47	48	49	50
a	b	a	a	c	a	b	b	a	a
51	52	53	54	55	56	57	58	59	60
c	a	b	b	a	a	a	c	a	d
61	62	63	64						
b	a	b	a						

### Additional Two Marks

#### 1. Write the basic concepts of national income.

- ❖ GDP
- ❖ NNP
- ❖ NNP at factor cost
- ❖ Personal Income
- ❖ Disposable Income
- ❖ Per capita Income
- ❖ Real Income
- ❖ GDP deflator

#### 2. Give an example of how real GDP could be increased even though no more output is produced.

- ❖ Real GDP could be increased even though there is no more output produced if output that is currently produced in the home or in the underground economy is included.
- ❖ If activities that are currently illegal are declared legal, real GDP could increase.

#### 3. Write the formula for calculating Market Price and factor cost.

Market Price = MP = FC + Indirect Taxes - Subsidies

Factor Cost = FC = MP - Indirect Taxes + Subsidies

**4. What is the formula for calculating GDP at Market Price**

GDPMP = Private Final Consumption + Government Final Consumption Expenditure + Gross Domestic Capital Formation + Net Exports (Exports - Imports)

**5. Mention the examples of factor costs.**

**There are three major types of economic systems.**

- ❖ The factor cost refer to the cost of production such as the cost of renting machines, purchasing machinery and land, paying salaries and wages, cost of obtaining capital, and the profit margins that are added by the entrepreneur.

**6. What are unpaid services?**

- ❖ A housewife renders a number of useful services like preparation of meals, serving, tailoring, mending, washing, cleaning, bringing up children, etc.
- ❖ She is not paid for them and her services are not directly included in national income. Such services performed by paid servants are included in national income.
- ❖ They are called unpaid services.

**7. List some limitations of GDP as a measurement of social welfare.**

- ❖ GDP is not necessarily a good measure of social welfare because it doesn't adjust production for negative externalities, home production is not included, all activity produced in the underground economy is excluded, and it tells us nothing about how the output is distributed.

**8. What is the underground economy and what is its relationship if any to the value of GDP?**

- ❖ The underground economy is the part of the economy in which transactions take place and income is generated that is unreported and therefore not counted in GDP.
- ❖ Examples include such illegal activity as gambling, extortion and the narcotics trade and legal production done "off the books" to avoid income taxes.

**9. If nominal GDP is \$8 trillion and real GDP is \$5 trillion, calculate the value of the GDP deflator.**

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

Therefore the GDP Deflator = Nominal GDP / Real GDP x 100 = \$8 trillion / \$5 trillion x 100 = 160.

**10. Why social accounting is considered as most useful tool of national income calculation?**

- ❖ The social accounting framework is useful for economists as well as policy makers, because it represents the major economic flows and statistical relationships among various sectors of the economic system.
- ❖ It becomes possible to forecast the trends of economy more accurately.

**11. Mention the sector divided in social accounting method.**

- ❖ (i) Firms, (ii) Households, (iii) Government, (iv) Rest of the world and (v) Capital sector.

**12. Mention the factors included in PQLI**

- ❖ The Physical Quality of Life Index

(PQLI) is considered a better indicator of economic welfare.

- ❖ It includes standard of living, life expectancy at birth and literacy.

### 13. What are capital gains?

- ❖ Capital gains arise when a capital asset such as a house, other property, stocks or shares, etc. is sold at higher price than was paid for it at the time of purchase.
- ❖ Capital gains are excluded from national income.

### 14. If NNP is \$7 trillion, net investment is \$500 billion and gross investment is \$1 trillion determine the level of GNP.

GNP = NNP + depreciation; depreciation = gross investment - net investment (\$1 trillion - \$500 billion)

Therefore GNP = \$7 trillion + \$500 billion = \$7.5 trillion.

### 15. Next to each of the following items indicate in the table which items belongs to GDP and which to GNP.

Rent paid to an Indian who owns land in America	
Salary paid to foreigners working in the India for a Indian - owned company	
Interest paid on a bond in a foreign-owned company to a Indian citizen	
Profits earned in India by a foreign-owned company	

#### Answer

Rent paid to an Indian who owns land in America	GNP
Salary paid to foreigners working in the India for a Indian - owned company	GDP

Interest paid on a bond in a foreign-owned company to a Indian citizen	GNP
Profits earned in India by a foreign-owned company	GDP

### 16. Compare and contrast the terms nominal GDP and real GDP.

Nominal GDP measures gross domestic product in current rupees. Real GDP measures gross domestic product by adjusting Nominal GDP for price changes.

### 17. Explain the four main categories of expenditures used in calculating GDP.

The four main expenditure categories are consumption, investment, government spending, and net exports.

### 18. When net factor payments to the rest of the world is a positive figure what does this mean?

It simply means that Indian payments of factor income to the rest of the world exceeded Indian receipts of factor income from the rest of the world.

### 19. Explain what is meant by the concept of "value added" and how it can be used to calculate GDP.

- ❖ Value added simply refers to the difference between the value of goods as they leave a stage of production and the cost of the goods as they entered that stage.
- ❖ If you add up the "value added" at each stage of the production process, the final value is equal to GDP.

### 20. Define GDP in broad terms.

- ❖ GDP stands for Gross Domestic Product. It represents the total market value of a country's output.
- ❖ It is the market value of all final goods and services produced within a given period of time by factors of production located within a country.

**21. What are Difficulties in assessing depreciation allowance?**

- ❖ The deduction of depreciation allowances, accidental damages, repair and replacement charges from the national income is not an easy task.
- ❖ It requires high degree of judgment to assess the depreciation allowance and other charges.

**22. Mention any two statistical problems as Difficulties in Measuring National Income.**

1. Accurate and reliable data are not adequate, as farm output in the subsistence sector is not completely informed.
2. Different languages, customs, etc., also create problems in computing estimates.

**23. What is the features of  $GDP_{MP}$ ?**

The main features of  $GDP_{MP}$  are:

- ❖ It includes only final goods and services produced in the domestic territory of a country;
- ❖ It includes consumption of fixed capital (depreciation);
- ❖ It is estimated at the prevailing prices.

BASIS FOR COMPARISON	NOMINAL GDP	REAL GDP
Meaning	The aggregate market value of the economic output produced in a year within the boundaries of the country is known as Nominal GDP.	Real GDP refers to the value of economic output produced in a given period, adjusted according to the changes in the general price level.
What is it?	GDP without the effect of inflation.	Inflation adjusted GDP
Expressed in	Current year prices	Base year prices or constant prices.
Value	Higher	Generally, lower.

**24. What is Gross Nation Product at Market Price ( $GNP_{MP}$ )?**

Gross National Product at market price is Gross Domestic Product at market price plus net factor income from abroad.

$GNP_{MP}$  is the money value of all final goods and services produced in the domestic territory of a country during a year plus Net factor income from abroad. i.e.,

$$GNP_{MP} = GDP_{MP} + (X-M)$$

Where,

$GNP_{MP}$  = Gross National Product at market price

$GDP_{MP}$  = Gross Domestic Product at market price



$(X-M)$  = Net factor income from abroad

## 25. What do you understand by Net Factor Income from Abroad (X-M)?

Net factor income from abroad is the difference between the income received from abroad for rendering factor services by the normal residents of the country to the rest of the world and income paid for the factor services rendered by nonresidents in the domestic territory of a country.

### Additional Three marks

### 1. What are the five types of final goods and services that GNP includes?

- (1) value of final consumer goods and services produced in a year to satisfy the immediate wants of the people which is referred to as consumption (C);
- (2) gross private domestic investment in capital goods consisting of fixed capital formation, residential construction and inventories of finished and unfinished goods which is called as gross investment (I) ;
- (3) goods and services produced or purchased by the government which is denoted by (G) ; and
- (4) net exports of goods and services, i.e., the difference between value of exports and imports of goods and services, known as  $(X-M)$
- (5) GNP at market prices means the gross value of final goods and services produced annually in a country plus net factor income from abroad  $(C + I + G + (X-M) + (R-P))$ .

## 2. Compare and contrast different measures of GDP calculations

GDP (Expenditure)	GDP (Factor Incomes)	GDP (Value of Output)
❖ Consumption	❖ Income from People in jobs and in self employment (eg. wages and Salaries)	❖ Value added from each of the main economic sectors
❖ Government spending	❖ Profit of private sector business	❖ These sectors are
❖ Investment spending	❖ Rent income from the ownership of land	❖ Primary
❖ Change in value of stocks		❖ Secondary
❖ Exports		❖ Manufacturing
❖ Imports		❖ Quaternary
❖ GDP (Know as aggregate demand)		
❖ Government spending	❖ Profits of private sector business	

## 3. How the gross value of the farm output is obtained In India?

- (i) Total production of 64 agriculture commodities is estimated. The output of each crop is measured by multiplying the area sown by the average yield per hectare.
- (ii) The total output of each commodity is valued at market prices.
- (iii) The aggregate value of total output of these 64 commodities is taken to measure the gross value of agricultural output.
- (iv) The net value of the agricultural output

is measured by making deductions for the cost of seed, manures and fertilisers, market charges, repairs and depreciation from the gross value.

**4. What are the steps involved in income method?**

1. The enterprises are classified into various industrial groups.
2. Factor incomes are grouped under labour income, capital income and mixed income.
  - i) **Labour income** - Wages and salaries, fringe benefits, employer's contribution to social security.
  - ii) **Capital income** - Profit, interest, dividend and royalty
  - iii) **Mixed income** - Farming, sole proprietorship and other professions.
3. National income is calculated as domestic factor income plus net factor incomes from abroad.

**5. What are the items should not be included while estimating national income through income method?**

1. Transfer payments are not to be included in estimation of national income as these payments are not received for any services provided in the current year such as pension, social insurance etc.
2. The receipts from the sale of second hand goods should not be treated as part of national income as they do not create new flow of goods or services in the current year.
3. Windfall gains such as lotteries are also not to be included as they do not

represent receipts from any current productive activity.

4. Corporate profit tax should not be separately included as it has been already included as a part of company profit.

**6. What are the items should be included while estimating national income through income method?**

1. Imputed value of rent for self occupied houses or offices is to be included.
2. Imputed value of services provided by owners of production units (family labour) is to be included.

**7. Write a note on social account method of national income.**

- i. National income is also being measured by the social accounting method.
- ii. Under this method, the transactions among various sectors such as firms, households, government, etc., are recorded and their interrelationships traced.
- iii. The social accounting framework is useful for economists as well as policy makers,
- iv. Because it represents the major economic flows and statistical relationships among various sectors of the economic system.
- v. It becomes possible to forecast the trends of economy more accurately.
- vi. Social Accounting and Sector Under this method, the economy is divided into several sectors. A sector is a group of individuals or institutions having common interrelated economic



transactions.

- vii. The economy is divided into the following sectors (i) Firms, (ii) Households, (iii) Government, (iv) Rest of the world and (v) Capital sector.

**8. Why does depreciation is added to national income to calculate GDP when using the income approach but do not do so when using the expenditure approach?**

- ❖ To measure income from all sources including income that results from the replacement of existing plant and equipment.
- ❖ Since national income includes corporate profit after depreciation it must be added in to reconcile it in the GDP accounts with the expenditure approach.
- ❖ The expenditure approach does not leave depreciation out. It is included in gross investment.

**Additional Five Marks**

**1. Explain the basic concepts of national income**

The following are some of the concepts used in measuring national income.

- ❖ GDP
- ❖ NNP
- ❖ NNP at factor cost
- ❖ Personal Income
- ❖ Disposable Income
- ❖ Per capita Income
- ❖ Real Income
- ❖ GDP deflator

**Gross Domestic Product (GDP)**

GDP is the total market value of final

goods and services produced within the country during a year. This is calculated at market prices and is known as GDP at market prices.

**Net Domestic Product (NDP)**

NDP is the value of net output of the economy during the year. Some of the country's capital equipment wears out or becomes outdated each year during the production process.

**Gross National Product (GNP)**

GNP is the total measure of the flow of final goods and services at market value resulting from current production in a country during a year, including net income from abroad.

**Net National Product (NNP)(at Market price)**

Net National Product refers to the value of the net output of the economy during the year. NNP is obtained by deducting the value of depreciation, or replacement allowance of the capital assets from the GNP.

**NNP at Factor cost**

NNP refers to the market value of output. Whereas NNP at factor cost is the total of income payment made to factors of production.

**Personal Income**

Personal income is the total income received by the individuals of a country from all sources before payment of direct taxes in a year. Personal income is never equal to the national income, because the former includes the transfer payments whereas they are not included in national income.

**Disposable Income**

Disposable Income is also known as Disposable personal income. It is the individual's income after the payment of income tax. This is the amount available for households for consumption.

**Per Capita Income**

The average income of a person of a country in a particular year is called Per Capita Income. Per capita income is obtained by dividing national income by population.

**Real Income**

Nominal income is national income expressed in terms of a general price level of a particular year in other words, real income is the buying power of nominal income.

**GDP deflator**

GDP deflator is an index of price changes of goods and services included in GDP. It is a price index which is calculated by dividing the nominal GDP in a given year by the real GDP for the same year and multiplying it by 100.

**2. Discuss the concept of "Factor Cost".**

- ❖ There are a number of inputs that are included into a production process when producing goods and services. These inputs are commonly known as factors of production and include things such as land, labour, capital and entrepreneurship.
- ❖ Producers of goods and services incur a cost for using these factors of production. These costs are ultimately added onto the price of the product.

- ❖ The factor cost refers to the cost of production that is incurred by a firm when producing goods and services.
- ❖ Examples of such production costs include the cost of renting machines, purchasing machinery and land, paying salaries and wages, cost of obtaining capital, and the profit margins that are added by the entrepreneur.
- ❖ The factor cost does not include the taxes that are paid to the government since taxes are not directly involved in the production process and, therefore, are not part of the direct production cost.
- ❖ However, subsidies received are included in the factor cost as subsidies are direct inputs into the production.

**3. Given the table, calculate GNP, NNP, National Income, Personal Income and Disposable income.**

	Billions of Dollars
GDP	8,000
Receipts of factor income from the rest of the world	250
Payment of factor income to the rest of the world	300
Depreciation	900
Indirect taxes minus subsidies	500
Corporate profits minus dividends	500
Social insurance payments	700
Personal interest income received from the government and consumers	300
Transfer payments to persons	1100
Personal taxes	1000

$$\text{GNP} = 8000 + 250 - 300 = 7950$$

$$\text{NNP} = 7950 - 900 = 7050$$

$$\text{NI} = 7050 - 500 = 6550$$

$$\begin{aligned}\text{PI} &= 6550 - 500 - 700 + 300 + 1100 \\ &= 6750\end{aligned}$$

$$\begin{aligned}\text{DI} &= 6750 - 1000 \\ &= 5750\end{aligned}$$

**4. Consider the following are the only transactions take place in an economy:**

- (i) Industry A imports goods worth Rs. 100. It sells goods worth Rs. 400 to industry B, 'goods worth Rs. 200 to industry C, and goods worth Rs. 1,000 for private consumption.
- (ii) Industry B sells goods worth Rs. 500 to industry C and goods worth Rs. 800 for private consumption.
- (iii) Industry C sells goods worth Rs. 600 to private consumption. and exports goods ,valUed at Rs. 500.
- (iv) Depreciation cost during the year amounts to Rs. 100,
- (v) Government realises taxes of the value of Rs. 100.

Calculate the following with the help of net value added method from the data given above

- (a)  $\text{GNP}_{\text{MP}}$       (b)  $\text{GNP}_{\text{FC}}$   
 (c)  $\text{NNP}_{\text{MP}}$  and    (d)  $\text{NNP}_{\text{FC}}$

**Answers**

**(A)  $\text{GNP}_{\text{MP}}$  = Sum of net value added by all the industries**

**(i) value-added by industry A .**

- = Sale of goods to industry B  
 + Sale of goods to industry C  
 – Value of imports

Sale of goods to consumers = Rs. 400 + Rs. 200

+ Rs. 1,000 – Rs. 100  
 = Rs. 1,590.

**(ii) Value-added by industry B**

= Sale of goods to industry C  
 + Sale of goods to consumers.  
 – Purchase of goods from industry A  
 = Rs. 500+Rs. 800 – Rs. 400  
 = Rs. 900.

**(iii) Value-added by industry C**

= Sale of goods to consumers  
 + Exports – (purchase of goods from industry A+purchase of goods from industry B)  
 = Rs. 600+Rs. 500-Rs. 200-Rs. 500  
 = Rs. 400.

**Gross National Product at market prices, or  $\text{GNP}_{\text{MP}}$  equals**

Rs. 1,500+Rs. 900+Rs. 400  
 =Rs. 2,800

**Gross National Product at factor cost or  $\text{GNP}_{\text{FC}}$  equals**

$\text{GNP}_{\text{MP}}$  – Indirect taxes + Subsidies  
 = Rs. 2,800 – Rs. 100 + Rs. 50  
 = Rs. 2,750.

**Net National Product at market prices, or  $\text{NNP}_{\text{MP}}$  equals '.**

$\text{GNP}_{\text{MP}}$  – Depreciation  
 = Rs. 2,800 – Rs. 100  
 = Rs. 2,700.

**Net National Product at factor cost or  $NNP_{FC}$  equals**

$$NNP_{MP} - \text{Indirect taxes} + \text{Subsidies}$$

$$= \text{Rs. } 2,700 - \text{Rs. } 100 + \text{Rs. } 50$$

$$= 2,650.$$

as factors of production and include things such as land, labour, capital and entrepreneurship.

Producers of goods and services incur a cost for using these factors of production. These costs are ultimately added onto the price of the product.

The factor cost refers to the cost of production that is incurred by a firm when producing goods and services.

Examples of such production costs include the cost of renting machines, purchasing machinery and land, paying salaries and wages, cost of obtaining capital, and the profit margins that are added by the entrepreneur.

The factor cost does not include the taxes that are paid to the government since taxes are not directly involved in the production process and, therefore, are not part of the direct production cost.

However, subsidies received are included in the factor cost as subsidies are direct inputs into the production.