1. What is National Income?

The gross money value of final goods and domestic territory of the country is called gross domestic product or income. If depreciation is subtracted from gross domestic income, we get net domestic income. Besides domestic income there is net factor income earned from abroad. If net factor income earned from abroad is added to domestic income, we get national income.

Hence **national income may be defined as follows :–**

National income is the net money value of all final goods and service that are produced in a country in a year plus net factor income received from abroad.

This national income is also distributed as factor income (wages, salary, rent, interest, profit etc) among the factors of production. Therefore, national income may also be estimated by adding up all the factors of income.

Factors of production spend their factor incomes on final goods and services. In this way national income can also be obtained by adding up all the final expenditures.

– Therefore, in short, national income is either the net value of all final goods and services.
– Or the sum total of all factor incomes.
– Or the sum total of final expenditures.

2.	**What is the concept of National Income?**

There are three ways of expressing National Income.

1. $NY = \Sigma PG$
   Where ΣPG = sum total of market value of the final goods and services produced.

2. $NY = \sum_{i+1}^{n} = FY_i$
   Where ΣFY = sum total of factor income.
   $i = 1 \rightarrow n$; all normal residents of a country.

3. $NY = C + I$
   Where $C + I$ = sum total of expenditure on the final goods and services produced.

3.	**What are the related concepts or aggregates of National Income?**

The related concepts or Aggregates of National Income are as follows :–

1. Gross Domestic Product and Gross National product at Market Price.
2. Gross Domestic Product and Gross National Product at factor cost.
3. Net Domestic Product and Net National product at market price.
4. Net Domestic product and Net national product at Factor cost.
5. National Disposable Income: Gross and Net Concepts.
6. Income from domestic product accruing to private sector.
7. Private (Pvt.) Income, personal Income, personal, disposable income.

1. **Gross Domestic Product at Market price (GDP_{MP})**
   GDP_{MP} is the market value of the final goods and services produced during a year within the domestic territory of a country.
   Note: Gross indicates that the value of domestic product is inclusive of depreciation i.e. consumption of fixed capital. Within the domestic territory means within the boundaries of the country including the production by domestic companies and by foreign companies as well.

2. **Gross National Product at Market price (GNP_{MP})**
   When net factor income from abroad (NFIA) is added to GDP_{MP} we get GNP_{MP}

   Thus $GNP_{MP} = NFIA + GDP_{MP}$

   NFIA is the difference between factor income Earned by our residents from the rest of the world and factor income earned by our residents within our country.

   Thus, NFIA =Factor Income earned by our resident from abroad – Factor income earned by non-residents within our country.

3. **Net National Product at Market price (NNP_{MP})**
   When Depreciation is subtracted from GNP_{MP} we get NNP_{MP}
   Thus, $NNP_{MP} = GNP_{MP}$ – Depreciation.

   In other words NNP_{MP} is the market value of final goods and service produced within the domestic territory of a country along with net factor income from abroad during a year.

What is depreciation?

Depreciation, also called consumption of fixed capital refers to the loss of value of fixed asset on account of :

(i) Normal wear and tear
(ii) Normal obsolescence
(iii) Accidental damage of machinery.

4. **Net Domestic Product at Market Price (NDP_{MP})**
When Depreciation is substrated from GDP_{MP} we get NDP_{MP}

Thus, $NDP_{MP} = GDP_{MP}$ - Depreciation

In other words NDP_{MP} is the market value of final goods and services produced within the domestic territory of a country during a year, exclusive of depreciation.

5. **Gross Domestic Product at Factor Cost GDP_{FC}**
GDP_{FC} is the sum total of factor incomes (Rent + Interest + Wages + Profit) generated within the domestic territory of a country along with consumption of fixed capital i.e. depreciation, during a year .

6. **Gross National Product at Factor cost GNP_{FC}**
When net factor income from abroad (NFIA) is added to GDP_{FC} we get GNP_{FC}.

Thus, $GNP_{FC} = GDP_{FC}$ + NFIA

7. **Net Domestic Product at Factor Cost NDP_{FC}**
When depreciation is subtracted from GDP_{FC} we get NDP_{FC}.

Thus, $NDP_{FC} = GDP_{FC}$ - Depreciation.

In other words, NDP_{FC} is the value of final goods and services produced within the domestic territory of a country at factor cost, exclusive of depreciation. It is the sum total of factor incomes generated within the domestic territory and is also known as Domestic income.

8. **Net National Product at Factor cost NNP_{FC}**
When NFIA is added to NDP_{FC} we get NNP_{FC}

Thus, $NNP_{FC} = NDP_{FC}$ + NFIA.

In other words, NNP_{FC} is the sum total of factor incomes generated within the domestic territory of a country, along with net factor income from abroad during a year. It is this NNP_{FC}, which is known as National Income.

9. **National Disposable Income (NDI)**
NDI is the income from all sources (earned income as well as transfer payments from abroad) available to residents of a country for consumption expenditure or for saving during a year.

Thus, NDI= National Income + Net Indirect taxes + Net current transfer from the rest of the world.

In other words, NDI refers to the net income at market price available to a country for disposal.

10. **Factor Income from Net Domestic Product Accruing to Private sector.**
Factor income from NDP accruing to private sector is the income earned by the private sector. It is that part of NDP_{FC} which accrues to the private sector and excludes :–

1. Property and entrepreneurial income of the departmental and

2. Saving of the non departmental enterprises of the Government.

Thus Factor income from Net Domestic product Accruing to Private sector = NDP_{FC} - Income from Property and entrepreneurship accruing to Government departmental enterprises- saving of non-departmental enterprises.

11. Private Income

Private Income relates to income and other payments relating to private sector. It includes all payments, which are earned by private sector within the country and abroad, plus all current transfer payments.

Private Income can be obtained from the National Income as well as from the Domestic Income.

Private Income = NI - Income from domestic product accruing to Government sector + current transfer payments

also

Private Income = NDP_{FC} accruing to Private sector + NFIA + Interest on national debt + current transfer from government + current transfer from rest of the world.

12. Personal Income

Personal income is the total of all current income received by households from all sources.

All incomes which accrue to the factors i.e. earned by the factors are not received by them (corporate saving, corporate tax) and on the other hand, there are certain payments which they receive but are not earned by them (pension, interest on national debt etc). Therefore personal income is the total of all such payment and income received whether or not they have earned, it.

Thus, Personal Income = Private income - Corporate Tax - Undistributed profit corporate saving.

13. Personal Disposable Income (PDI)

PDI is that part of personal income, which the individual can spend the way they like. It is the income remaining with individual after deduction of all taxes levied against their income & property by the Government.

Thus, PDI = Personal Income - Direct Personal taxes - Miscellaneous fees and fines paid by the householders to the Government

4.	**What is the relation between GDP_{MP} & GDP_{FC}?**

$GDP_{MP} = GDP_{FC}$ + Indirect tax- subsidies

5.	**What is the relation between NDP_{MP} & NDP_{FC}?**

$NDP_{MP} = NDP_{FC}$ + Indirect tax-subsidy.

6.	**What are the various methods of measuring national income?**

There are three methods of measuring national income :-

1. Product Method or Value Added Method
2. Income Method
3. Expenditure Method

1. **How is NI measured by Product Method?**
Product Method or Value added method is that method which measures the national income by estimating the contribution of each producing enterprise to production in the domestic territory of the country in an accounting year.
The steps involved are:
1st Step:
First of all the various producing enterprise in a country are classified into primary sector, secondary sector and tertiary sector.
2nd Step:
Estimating net value added.
Net value added=Value of out put – [Value of non factor inputs (also called intermediate consumption) + depreciation + net indirect tax]
Value of Output=Sales + Change in stock
Change in stock=Closing Stock – Opening stock
3rd Step:
The NVA of all the sectors of a country is added to obtain NDP at factor cost
4th Step:
Estimating NFIA and adding the same to NDP to obtain net national product or National Income.
Thus, $\sum$NVA (of all the sectors) = NDP_{FC}
$NDP_{FC} + NFIA = NNP_{FC}$
$NNP_{FC} = NI$.

2. **What precautions should be taken while measuring NI by Product Method?**
   (i) The value of only final goods and services should be included to avoid double counting.
   (ii) Sale and purchase of 2nd hand goods should not be counted.
   (iii) Services of housewife should not be counted.
   (iv) Production for self consumption should also be included
   (v) Imputed rental value of the self-occupied house should be included.

3. **How is NI measured by Income Method?**
Income method is that method which measures NI from the payment point of view where payment is made in form of wages, rent, interest and profit to the primary factors of production i.e. labour, land, capital, and enterprise respectively for their productive services in an accounting year.
The steps involved are:
1st Step:
First of all the various producing enterprise in a country are classified into
(a) Primary sector
(b) Secondary sector
(c) Tertiary sector.
2nd Step:
All the factor payments are classified as follows :–
   (i) Income from work – wages and salary
   (ii) Income from property – Rent and Interest
   (iii) Income from profit – Dividend, Undistributed Profit and Corporate taxes
   (iv) Mixed Income – income of self-employed like doctor, advocate etc.

3rd Step:
Domestic factor Income is estimated by adding all the factor payments of all the enterprises of all the sector.
4th Step:
Net Income earned from abroad is estimated and added to domestic Income to arrive at national product, which is the national income.
Thus,

Wage
+ Salary
+ Profit
+ Rent
+ Interest
+ Mixed Income
= NDP_{FC} = Domestic Income + NFIA
= NNP_{FC} = National Income.

4. **What precautions should be taken while measuring NI by Income method?**
   (i) Windfall gains like income from lottery are not included.
   (ii) Wealth tax capital gain tax are not to be included.
   (iii) Production for self-consumption should also be included.
   (iv) Imputed rental value of self-occupied house should also be included.
   (v) Sale and purchase of 2nd hand goods should not be counted.
   (vi) Income of gamblers, smugglers, thieves etc should not be included.
   (vii) Financial transaction such as sale of shares is not included.

5. **How is NI measured by Expenditure Method?**
   Expenditure method is the method, which measures the final expenditure on GDP at market price during an accounting year.
   The steps involved are :–
   1st Step:
   The private final consumption expenditure is estimated.
   This expenditure is the expenditure by consumer households and non profit making institutions on:–
   (a) Durable consumer goods-fan, TV etc
   (b) Single use consumer goods-milk, fruit
   (c) Services such as education, medical facilities etc.
   2nd Step:
   The Government final consumption expenditure is estimated. This is the expenditure incurred by Govt. for the general well being of the citizen's like-education, health and medical care, electricity and water supply etc.
   3rd Step:
   The gross domestic capital formation is estimated. Gross domestic capital formation is the sum of change in stock and gross fixed domestic capital formation.

4th Step:
The net export of goods and services is estimated. Net export is the difference between export and import of a country.

5th Step:
All the items from 1st to 4th step is added. The sum is the expenditure on domestic product. It is also known as NDP at market price.

6th Step:
The NFIA is estimated and added to the NDP_{MP} to get NNP_{MP}, which is the National income at Market price. To obtain N I at factor cost, net indirect taxes have to be subtracted.

6. **What precautions should be taken while measuring NI by expenditure method?**
   (i) Expenditure on 2nd hand good should not be included.
   (ii) Expenditure on financial transaction like purchase of shares should not be included.
   (iii) Govt. expenditure on transfer payments should not be included.
   (iv) To avoid double counting only expenditures on final goods and services is to be included.

7. **Out of the three methods, which method is the best-suited method?**
All the 3 method gives almost the same estimate of national income. Therefore any method can be used to estimate the national in come of the country. However to get a three dimensional view of the economic, the N I should be measured separately by all three methods.

However, for underdeveloped economy production Method or value added method, for developed economy-income method is more suitable.

8. **In India which method is followed to measure the national income?**
India, follows the mixed method a combination of all three methods.

As per the methodology, Indian economy is divided units fourteen sectors which are further grouped units three main categories A, B & C.

Category A includes : Agriculture, forestry and logging, fi-hing mining and quarrying.
Category B Includes : Electricity, railways, air transport, water transport, communication, banking, insurance, real estate, public administration and defence.
Category C includes : Gas & water supply, unorganised road and water transport, storage, trade, hotels & restaurant, ownership of dwelling and other services.
For category A : Production or value Added method is followed.
For category B : Income method is followed
For category C : Expenditure method is followed.

9. **What are the problems in the estimation of National Income?**
   1. ***Presence of non monetised sector:*** Sometimes, a part of production escapes valuation (due to self consumption) Thus NI is under estimated is that extent.
   2. ***Ignorance of Indian producer:*** Many a time the producers are ignorant about the exact value and quantity of their produce.
   3. ***Lack of differentiation of economic functions:*** When a person is engaged in many occupation simultaneously it is difficult to make proper valuation of his total economic efforts.
   4. ***Non-availability of reliable data:*** There is lack of adequate data and reliability in it is low. The estimates of costs are generally absent in primary and subsidiary occupation.
   5. ***Avoidance of financial burden:*** To avoid the tax liability, people do not furnish exact data about their income and expenditure.