National Income Accounting

One Mark Questions

Question 1. Write the meaning of national income.
Answer: National Income refers to the money value of all the final goods and services produced in an economy within an accounting year. It also includes the income from abroad factor.

Question 2. What are final goods?
Answer: The final goods are those goods which are purchased for final utility or usage.

Question 3. What do you mean by intermediate goods?
Answer: The intermediate goods are those goods which are produced by one producer and used by another producer as a semi finished goods to produce some other final goods.

Question 4. How do you get NDP?
Answer: NDP is obtained by deducting depreciation cost from Gross Domestic Product (GDP) .

Question 5. What is Per capita income?
Answer: The per capita income is the average income of the population which is calculated by dividing the national income by the total population.

Question 6. What is economic welfare?
Answer: Economic welfare is the satisfaction derived by an individual from the use of economic goods and services.

Question 7. What are externalities?
Answer: Externalities are those which are unintentional consequences of an economic action of a firm that accrue to another firm.

Question 8. What are Transfer Payments?
Answer: The payments made by the Government like old age pension, widow pension, scholarships etc. are called transfer payments.

Two Marks Questions

Question 1. What are the differences between final goods and intermediate goods?
Answer:

Final Goods	Intermediate Goods
(i) Final goods are those goods which are purchased for final utility or usage.	(i) Intermediate goods are those goods which are produced by one producer and used by another producer to produce some other final goods
(ii) Example for final goods are TV, mobile, sugar, car, shoes etc.	(ii) Examples are raw cotton, wood etc.

Question 2. Differentiate between consumer goods and capital goods with examples.
Answer:

Consumer Goods	Capital Goods
(i) These are the goods which are purchased for consumption.	(i) These are the goods which are used to produce other products.
(ii) Example food, clothes, TV, mobile, sugar, car, shoes etc.	(ii) Examples are machinery, tools, roads.

Question 3. Between net investment and capital, which is stock and which is a flow.
Answer: Between net investment and capital, net investment is stock and capital is a flow.

Question 4. Write the meaning of circular flow of income.
Answer: The circular flow of income illustrates the process where by the national income of an economy flows in a circular manner continuously between different sectors.

Question 5. Classify the following into stocks and flows: Bank deposits, salary, wealth, food grain stock, exports, imports, foreign exchange reserves, national income.
Answer:

Stocks	Flows
Bank deposits, wealth, food grain stock, foreign exchange reserves.	Salary, exports, imports, national income.

Question 6. Name the factors of production.
Answer: There are four factors of production viz.. Land, Labour, Capital and Organisation.

Question 7. Name the factor payments.
Answer: The factor payments are Rent, Wages, Interest and Profit.

Question 8. How does GNP differ from GDP?
Answer: Gross Domestic Product Gross National Product

Gross Domestic Product	Gross National Product
It is the aggregate value of final goods and services produced within the country during a year. It is a narrow concept.	It is the aggregate money value of all final goods and services produced by a country including income from abroad. It is wider concept

Question 9. Differentiate between nominal national income and real national income.
Answer:

Nominal National Income	**Real National Income**
When it is expressed in current prices, it is called nominal income. It does not give a clear picture of the condition of the economy.	It is expressed in terms of base year prices/constant prices. It provides a clear picture of the condition of the economy.

Question 10. Mention the methods of measuring National Income.
Answer: There are three methods of measuring national income viz.,

Income Method

Expenditure Method and

Product method.

Question 11. What is the opinion of the International Monetary Fund (IMF) with regard to income from Foreign firms?
Answer: The IMF is of the opinion that the income of a foreign firm should be

included in the income of the country where it is located. But, profits earned by foreign firms should be credited to the parent country.

Question 12. Nishanth is a lecturer in a College. He teaches his children at home. Are both teachings included in national income measurement? If not, why?
Answer: Nishanth is a lecturer in a College. He gets his salary for his work. The salary is included in the national income.

Nishanth teaches his children at home. Here, he does not earn any income. So, it is not included in National Income.

Question 13. What are externalities? Explain with an example.
Answer: Externalities are those which are unintentional consequences of an economic action of a firm that accrue to another firm. For example, if there is establishment of an atomic power plant, it solves power crisis. It is a positive externality. But, the pollution caused by the power plant is harmful externality.

Question 14. GDP is not a true indicator of welfare. Give reasons.
Answer: Hie National income is not a reliable index of economic welfare because of the following reasons.

a) Inequality in the distribution of income.
b) Existence of non-monetary exchanges.
c) GDP does not consider whether the goods produced are useful or harmful.
d) GDP does not consider the manner of production.

Question 15. What is simple economy?
Answer: A simple economy is a clased economy in which there is no government or external trade or savings.

Question 16. Mention any four difficulties in measuring National Income.
Answer: Neglect of transfer payments.

Lack of reliable data.

Income from illegal activities.

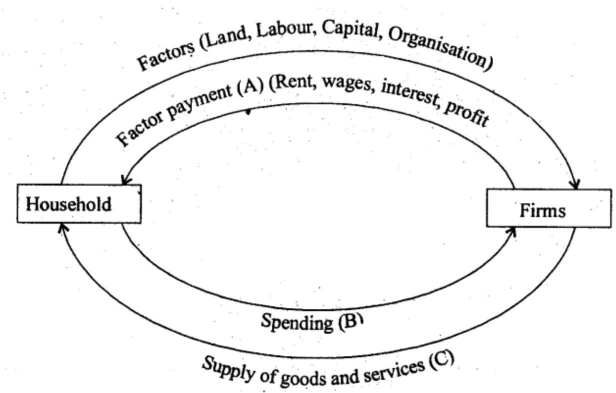
Problem of double counting.

Five Marks Questions

Question 1. Describe circular flow of income in a simple economy.
Answer: Circular flow of income illustrates the process whereby the national income of an economy flows in a circular manner continuously between different sectors.

Now let us discuss about a circular flow of income in a simple economy.
A simple economy is a closed economy in which there is no Government or external trade or savings. A simple two-sector model economy is based on the following assumptions:

a) Existence of two sectors viz., household sector and producers.
b) Households are the owners of the factors of production.
c) Households receive income by selling the factor services.
d) There are no savings.
e) The firms produce entire produce to the households.
f) The economy is a closed economic system.



In the above diagram, the household sector provides factors of production to the producers. The firms supply goods and services to the households. It is showtn in outer circle flow and is called real flow. The firms make factor payments like rent, wages, interest and profit to households as reward for factors of production. Households spend this income on buying goods and services. This is money is flow, which is shown in inner circle. In this way, production generates factor income, which is converted into expenditure.

The national income is calculated at three points as per the above chart viz., A, B, C. At point A, national income is calculated by adding all the factor payments and it is called income method. At point B, we take total expenditure incurred by the households on goods and services to calculate national income and it is called expenditure method. At point C, we measure the aggregate value of all the final goods and services produced by all the firms to calculate national income and it is called product method.

Question 2. Explain macroeconomic-identities GDP, NDP, GNP and NNP.
Answer: a) Gross Domestic Product(GDP): GDP is the aggregate of the final goods and services produced in the domestic territory of a country during an accounting year.

b) Net Domestic Product (NP): NDP refers to the market value of all final goods and services turned out in an economy during a given period of time after making allowance for depreciation charges. lt is obtained by subtracting depreciation from GDP.
NDP = GDP – Depreciation.

In simple words we can say that NDP is the net market value of final goods and services produced by its residents and non-residents within the domestic territory of a country in a year.

c) Gross National Product (GNP): It is the most important concept in N.I accounting. It is a National concept. GNP is defined as the total market value of all final goods and services produced in a country in a year's time.

No allowance for wear and tear cost i.e., depreciation is made. While calculating the GNP, the money value of only the goods and services which are finally consumed by the people are to be taken into account. Hence, the value of all intermediary goods and inputs are to be excluded in order to avoid double or multiple counting.

The income received from foreign investment and from other factor services rendered abroad should be added to the gross domestic product of a country. Similarly, the income generated by the foreigner in a given country should be deducted from the GDP for the purpose of computing the GNP.

GNP = GDP + X – M

X= income earned by nationals abroad .
M= Income earned by foreigners in the given country.

GNP includes:

The value of all consumption goods which are currently produced.

The value of all capital goods currently produced.

Total government expenditure on buying various goods and services.

Net export value.

Net amount earned abroad.

GNP = (C+I+G) + (X-M) + (R-P)

d) Net National Product (NNP):
Net national product is the market value of the net output of final goods and services

produced by the country during the relevant income period.
NNP = GNP – Depreciation.

Question 3. Write a note on nominal national income and real national income.
Answer: Nominal National Income: When the national income is expressed in the prices prevailing , in the year in which it is calculated it is called nominal national income. For example, if the national income of the year 2014 – 15 is calculated as per the prices of 2014-15, it becomes nominal national income.

Defects of Nominal National Income:

Nominal national Income does not give a clear picture of an economy. If there is rise in prices of goods and services due to scarcity, the nominal national income shows growth in GDP. But it is not true.

Difficulty in monitoring the changes in the price of all the goods and services.

Existence of non-monetary transaction hinders in the correct calculation of national income.

Real National Income: As the nominal national income does not provide correct picture of an economy, the concept of real national income is developed. The real national income is expressed in terms of base year prices. While calculating National income, a particular year is taken as base year. The price level is assumed to be as 100 for the base year. The formula to calculate real national income is as follows:

$$\text{Real National Income} = \text{NI for current year} \times \frac{\text{Base year price index (100)}}{\text{Current year price index}}$$

4. Describe any five problems in the measurement of national income.
Answer:
a) Problem of double counting: The greatest difficulty in calculating the national income is that of double counting, which arises from the failure to distinguish properly between a final and an intermediate product. There always exists the fear of a good or a service being included more than once. If it so happens, the national income would work out to be many times the actual.

b) Illegal activities: Income earned through illegal activities such as gambling, illegal extraction of wine, hoarding and black marketing is not included in national income. While calculating national income, such earnings are left out, so the national income works out to less than the actual.

c) Change in price: Another difficulty in calculating national income is that of price changes which fail to keep stable the measuring rod of money for national income.

When the price level in the country rises, the national income also shows an increase even though the production might have fallen and vice versa. Thus due to price-changes the national income cannot be adequately measured.

d) Illiteracy: In developing countries, we find crores of people as illiterates. They do not keep proper accounts about the production and sales of their products. Under such circumstances, the estimates of production and earned incomes are simply a guess work.

e) Non-availability of Data: Adequate and correct production and cost data are not available. The data relating to crops, forestry, fisheries, animal husbandry and the activities of petty shop keepers, small enterprises, etc., are not counted. For estimating national income by the income method, data on unearned incomes and on persons employed in the service sector are not available.

Question 5. Explain the relationship between national income and welfare.
Answer: Alfred Marshall, Prof. A.C Pigou and J.R. Hicks say that there is a close relationship between economic welfare and national income, because both of them are measures in terms of money. When National income increases, total welfare also increases and vice versa.

The effect of national income on economic welfare can be studied in two ways:

By change in the size of national income.

By change in the distribution of National income.

i) The change in the size of National Income: The positive change in the national income increases its volume. As a result people consume more of goods and services, which leads to increase in the economic welfare. Whereas the negative change in national income, results in reduction of its volume. People get lesser goods and services for consumption which leads to decrease in economic welfare.

ii) The change in the distribution of National Income: The distribution of national income takes place in two ways, firstly, by transferring wealth from poor to rich and secondly from the rich to the poor. But, it is advisable to follow the second way in distribution of national income.

The actual relation between the distribution of national income and economic welfare concerns the transfer of wealth flow from the rich to the poor. The redistribution of wealth in favour of the poor is brought about by reducing the wealth of the rich and increasing the income of the poor.

Thus, the increase in national income leads to increase in economic welfare provided that the income of the poor increases instead of decreasing and they improve their standard of living and that the income of the rich decreases in such a way that their productive capacity, investment and capital accumulation do not decline.

Question 6. "GDP is not a barometer of economic welfare but only a rough indicator". Analyse this statement.
Answer: The GDP is not a satisfactory measure of economic welfare because the estimates of national income do not include certain services and production activities which affect welfare. Following are the factors which affect human welfare but not included in GDP estimates:
i) Non-market transactions: Some of the non-market transactions increase welfare but they are not included in national income estimates. The services of housewives within the home and community activities like welfare activities of NGOs influence the welfare of the people but they are not included in GDP.

ii) Consumption of harmful goods: The consumption of harmful goods like cigarettes, liquor, narcotic drugs etc may not bring welfare to the community but they are included in the GDP estimates.

iii) Unequal distribution of National Income: The increase in National Income may not always coincide with the increase in economic welfare of a country. This is mainly because of unequal distribution of income. The rich people may be having more share than the poor.

iv) Environmental concerns: The rapid industrialization and urbanization are causing a severe threat to environment. Many hazardous pollutants are being added to the atmosphere in the name of development which is not in favour of economic welfare. But these are included in GDP estimates.

v) Externalities: An externality is a cost or benefit conferred upon second or third parties as a result of acts of individual production and consumption. But the cost or benefit of an externality cannot be measured in money, terms because it is not included in market activities. For example, the pleasure one gets from his neighbour's garden is an external benefit and external cost is environmental pollution caused by industries. Both are excluded from national income estimates.

vi) Leisure and work: One of the important things that affect the welfare of a society is leisure. But is not included in GDP. For example, longer working hours may make people unhappy because their leisure is reduced. On the contrary, shorter working hours per week may increase leisure and make people happy.

vii) Manner of production: The economic welfare also depends on the manner of production of goods and services. If goods are produced by child labour or by exploitation of workers, then the economic welfare cannot increase.

Keeping the above limitations in view, GDP cannot be used as a barometer of economic welfare.

Ten Marks Questions

Question 1. Explain the difficulties in the measurement of National income.
Answer: i) Problem of double counting: The greatest difficulty in calculating the national income is of double counting, which arises from the failure to distinguish properly between a final and an intermediate product. There always exists the fear of a good or a service being included more than once. If it so happens, the national income would work out to be many times the actual.

ii) Illegal activities: Income earned through illegal activities such as gambling, illegal extraction of wine, hoarding and black marketing is not included in national income. While calculating national income, such earnings are left out, so the national income works out to less than the actual.

iii) Change in price: Another difficulty in calculating national income is that of price changes which fail to keep stable the measuring rod of money for national income. When the price level in the country rises, the national income also shows an increase even though the production might have fallen and vice versa. Thus due to price-changes the national income cannot be adequately measured.

iv) Illiteracy: In developing countries we find crores of people as illiterates. They do not keep proper accounts about the production and sales of their products. Under such circumstances, the estimates of production and earned incomes are simply a guess work.

v) Non-availability of Data: Adequate and correct production and cost data are not available. The data relating to crops, forestry, fisheries, animal husbandry and the activities of petty shop keepers, small enterprises, etc., are not counted. For estimating national income by the income method, data on unearned inijomes and on persons employed in the service sector are not available.

vi) Goods kept for self consumption: In India and other developing countries, producers keep a large portion of products for self consumption. For example, farmers keep certain portion of foodgrains for themselves. Such goods do not enter the market. It is not included in national income estimates.

vii) Absence of occupational specialization: The absence of occupational specialization makes calculation of national income difficult. Many people work as part-time workers and as such they do not give complete information about all sources of their income.

viii) Transfer Payments: The payments made by the Government to senior citizens, widows, scholarships, etc, are neglected while calculating the national income. But these are a part of individual income and a part of Government expenditure.

ix) Income from foreign companies: According to IMF, the income of foreign company should be included in the income of the host country and the profits earned by foreign companies should be included in the parent country. But it may not give correct national income estimates.

x) Existence of non-market transactions: Many times people stitch their own clothes, grow vegetables in their own garden and prepare many items in their own houses. The value of all such productive activities does not enter the market transactions and hence are not included in the national income estimates.

xi) Absence of trained personnel: There is a lack of well trained, skilled and efficient persons and staff to collect, classify and analyse the various information in relation to national income accounting.

Question 2. Discuss the Macro-economic identities of national income Explain the important concepts of National Income.
Answer: The Macro economic identities of national income are as follows:
a) Gross Domestic Product(GDP): GDP is the aggregate of the final goods and services produced in the domestic territory of a country during an accounting year. It is the total money value of all final goods and services produced within the country by the nationals of the country and by the foreign nationals staying in the country during a year. It does not include goods and services produced by non-resident Indians, It can be expressed as follows:
GDP = C + I + G + net 'X'

where, C – Consumption expenditure of public,
I – Investment expenditure of private sector
G – Governments consumption and investment expenditure.
net X – Difference between value of exports and imports.

b) Net Domestic Product (NDP): NDP refers to the market value of all final goods and services turned out in an economy during a given period of time after making allowance for depreciation charges. It is obtained by subtracting depreciation from

GDP.
NDP = GDP – Depreciation.

In simple words we can say that NDP is the net market value of final goods and services produced by its residents and non-residents with in the domestic territory of a country in a year.

c) Gross National Product (GNP):
It is the most important concept in N.I accounting. It-is a National concept. GNP is defined as the total market value of all final goods and services produced in a country in a year time.

No allowance for wear and tear cost i.e., depreciation is made. While calculating the GNP, the money value of only the goods and services which are finally consumed by the people are to be taken into account. Hence, the value of all intermediary goods and inputs are to be excluded in order to avoid double or multiple counting.

The income received from foreign investments and from other factor services rendered abroad should be added to the gross domestic product of a country. Similarly, the income generated by the foreigner in a given country should be deducted from the GDP for the purpose of computing the GNP.
GNP = GDP + X – M .
X= income earned by national abroad .
M= Income earned by foreigners in the given country.

GNP includes:

The value of all consumption goods which are currently produced.

The value of all capital goods currently produced.

Total Government expenditure on buying various goods and services.

Net export value

Net amount earned abroad.
GNP = (C+I+G) + (X – M) + (R – P)

d) Net National Product (NNP):
Net national product is the market value of the net output of final goods and services produced by the country during the relevant income period.
NNP = GNP- Depreciation.

e) Personal Income (PI):
The concept of personal income refers to the sum of all the incomes actually

received by the individual and households in a country during one year. It is the amount available to them for spending, paying taxes and saving purposes PI is less than NI because several deduction are made out of it.

Personal income = National income – undistributed profit – social security contribution + transfer payment
The concept of PI helps us to know the potential purchasing power of people.

f) Disposable personal Income:
The entire PI accounting to individual or house hold in not available for consumption purpose.
A part of PI have to be paid to the Government by way of personal direct tax. Hence, that part of the personal direct taxes is called as disposable personal income.
DI = PI – Personal Direct Tax.

Disposable income can either be spent entirely of a part of the income can be saved. Therefore, the Personal Disposable Income may be written as:
PDI = Consumption Expenditure + Savings.

g) Nominal and Real National Income:
When the national income is expressed in the prices prevailing in the year in which it is calculated it is called nominal national income. For example, if the national income of the year 2014 – 15 is calculated as per the prices of 2014 – 15, it becomes nominal national income.

The real national income is expressed in terms of base year prices. While calculating National income, a particular year is taken as base year. The price level is assumed to be as 100 for the base year. The formula to calculate real national income is as follows:

$$\text{Real National Income} = \text{NI for current year} \times \frac{\text{Base year price index (100)}}{\text{Current year price index}}$$

h) Per Capita Income:
Per capita income refers to the income of an individual person. It is the average income of the people of a country. The per capita income is calculated by dividing the national income by population. Thus,

$$\text{Per Capita Income} = \frac{\text{National Income}}{\text{Total Population}}$$

Question 3. Explain the methods of measuring National Income.
Answer; There are three methods of measuring national income, they are as follows:

a) Product methods or output method:
Under this method, a census of all goods and services are conducted to get the correct picture of total national production.
While,calculating total volume of goods and service, the following four items are to be included.

All kinds of consumption goods and services.

Gross domestic investment, which includes inventories, capital formation, construction of houses etc.

Production in the public sector.

Export minus imports.

b) Income method:
National income is the result of the combined and co-operative efforts put in by all factors of production. Alter employing them, we have to remunerate them in the form of rent, wages, interest and profits.

This method may be represented in the following equation.
$Y = (r + w + i + p) + (X – M) + (R – P)$, where r – rent, w – wages, i – interest, p – profit, X – exports, M imports, R – receipts, P – payments.

c) Expenditure method:
Incomes earned by factor inputs are spent on buying different goods and services. If we add the total expenditure incurred by all people in a years’ time, then we get total income of the people. Income determines the expenditures. All kinds of expenditures are to be taken into account while calculating the national income of a country. They are

i. Personal consumption expenditures of all people on all kinds of goods and services.
ii. Gross domestic investment or investment expenditures made by all businessmen in a year.
iii. Gross Governments’expenditure on all kinds of goods and services.
iv. Net foreign investment, exports – imports.

This method may be represented with the help of the following equation.
$Y = (C + I + G) + (X - M) + (R - P)$, where, C – Consumption, I – Investment, G – Government's Investment, X – exports, M – Imports, R – Receipts and P – Payments.