National Income Accounting 2,10/15 fixed

Unit – 2

only focus in Numerical:

Formula

There are three methods for calculating National income Accounting.

1) Expenditure methods
2) Income methods
3) Product methods

→ GDP at mp में difference से same.

Then other indications are same:

GDP at mp = Depend upon methods
GNP at mp = GDP at mp + NFIFA
NNP at mp = GNP at mp − Dep
NNP at FC = NNP at mp − Net indirect tax
NI = NNP at FC
PI =
DI =

(2) GNP at mp [Gross National product at market price]:
= GDP at mp + Net factor income from Abroad

∴ NFIFA = Income from Abroad − Income earned by foreign in a country.

In case is marks

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③ NNP at mp [Net National product at market price]:
= GNP at mp − Depreciation

∴ Depreciation = Capital consumption Allowances

④ NNP at fc [Net National product at Factor cost]:
= NNP at mp − Net indirect tax

∴ Net indirect tax = Indirect tax − Subsidy

⑤ NI [National income]:
= NNP at fc
[NI = NNP at fc ई] NNP at fc बराबरी का NI हो।

⑥ PI [Personal income]:
= NI − undistributed corporate profit − Corporate income tax − Social security Contribution + Transfer payment

= NI − UCP − CIT − SSC + TP

∴ Profit = Dividend + Undistributed profit (RIE) + Corporate income tax

⑦ DI [Disposable income]
= PI − Personal tax

How can we calculate GDP at mp by Expenditure methods ?

Master formula $Y = C + I + G + (X - M)$

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GDP at mp = C + I + G + (X - M)

where,

C = Personal consumption Expenditure

I = Gross private Domestic Investment

G = Government Expenditure

X = Export

m = Import

(x-m) = Net export

For I

Gross Private Domestic Investment (I) =

⇒ Net fixed capital formation + Depreciation + change in stock

⇒ Gross fixed investment + change in stock

∴ change in stock = closing - opening

Gross Domestic product GDP at mp by Income method

GDP at mp = wages and salary + Rent + Interest + profit + mixed income + income from self employee + proprietors income + Depreciation + Net indirect tax

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Brief Answer Questions [2 marks]

1. 2081 Q.No. 6

Let, gross fixed investment = 2,000, changes in stocks = 50, depreciation = 500. Compute gross private domestic investment. **Ans: 2,050**

→ Sol? Given information,

Gross fixed investment = 2000

Change in stock = 50

Depreciation = 500

Gross private domestic investment = ?

Now,

We know that.

Gross private Domestic investment = Gross fixed investment + Change in stock

= 2000 + 50

= 2050 Ans

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2. 2072 Q.No. 10

If the GDP deflator for 2012-2013 = 275 and GDP deflator for 2013-2014 = 300 what will be the rate of inflation?

Ans: 9.09%

→ solution,

Given information;

GDP deflator 2012-2013 = 275 (old → Base)

GDP deflator 2013-2014 = 300 (new → current)

Rate of inflation = ?

Now,

We know that;

$$\text{Rate of inflation} = \frac{\text{change in GDP deflator}}{\text{GDP deflator in Base Year}} \times 100\%$$

$$= \frac{2013-2014 \;-\; 2012-2013}{2012-2013} \times 100\%$$

$$= \frac{300 - 275}{275} \times 100\%$$

$$= 9.09\% \text{ Ans//}$$

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GDP at FC = 2000 − 200
= 1800 billion

3. Calculate GDP at FC from the following data:
GDP at MP = Rs. 2,000 billion; Indirect taxes = Rs. 300 billion; Subsidies = Rs. 100 billion
Ans: Rs. 1,800 billion

→ sol?
Given information;
GDP at FC = ? [NNP at FC = NI]
GDP at mp = Rs. 2000 billion
Indirect taxes = Rs. 300 billion
Subsidies = Rs. 100 billion

Now,
GNP at mp = GDP at mp + NFIFA
= 2000 + 0
= Rs. 2000

NNP at mp = GNP at mp − Depreciation
= 2000 − 0
= Rs. 2000

NNP at FC = NNP at mp − Net indirect tax
= Rs. 2000 − Rs. 200
= Rs. 1800 billion

where,
Net indirect tax = Indirect tax − subsidy
= 300 − 100
= Rs. 200 billion

∴ Hence, GDP at FC = NNP at FC = NI = Rs. 1800 billion Ans

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Ans: Rs. 1,000 billion

4. Calculate NNP at FC (NI) from the following data:
GDP at MP = Rs. 5,000 crore; Net indirect taxes = Rs. 800 crore; Net factor income from abroad = Rs. 1,000 crore; Depreciation (Consumption of fixed capital) = Rs. 500 crore

Ans: Rs. 4,700 crore

Ans: Rs. 4,700 crore

5. Calculate PI from the following data:

Items	Rs. in crore
National income	12,000
Corporate tax	100
Undistributed corporate profit	1,000
Social security contribution	500
Transfer payments	2,000

Ans: Rs. 12,400 crore

6. If personal income is Rs. 12,400 crore personal taxes (direct taxes) are Rs. 1,500 crore and total consumption expenditure of private sector is Rs. 10,000 crore, find out disposable income and personal saving.

Ans: Rs. 10,900 crore and Rs. 900 crore

7. Calculate the GDP deflator when real GDP is Rs. 3,000 crore and nominal GDP is Rs. 3,300 crore.

Ans: 110

8. Find out per capita GDP when population is 200 million and GDP is $ 4 trillion.

Ans: $ 20,000

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14. 2080 Q.No. 15

Consider the following data for a hypothetical economy: [(2+2+2+2)+2]

Year	Output of A	Price of A	Output of B	Price of B
2021	300	900	1000	80
2022	350	1000	1300	120
2023	375	1200	1700	140

❶ Compute nominal GDP, real GDP, GDP deflator and rate of inflation.

❷ Why the real GDP is better measurement of welfare than nominal GDP?

Ans: ❶ Nominal GDP: 350,000; 506,000; 688,000; Real GDP: 350,000; 419,000; 579,000; GDP Deflator: 100; 120.76; 118.82; Rate of Inflation: -; 20.76; 1.6

→ समाधान (1)

(#) For Nominal GDP:

Nominal GDP for 2021 = $Q_A \times P_A + Q_B \times P_B$
= $300 \times 900 + 1000 \times 80$
= Rs. 3,50,000

Nominal GDP for 2022 = $Q_A \times P_A + Q_B \times P_B$
= $350 \times 1000 + 1300 \times 120$
= Rs. 506,000

Nominal GDP for 2023 = $Q_A \times P_A + Q_B \times P_B$
= $375 \times 1200 + 1700 \times 140$
= Rs. 6,88,000

(#) For Real GDP

Real GDP for 2021 = $Q_A \times P_A + Q_B \times P_B$
= $300 \times 900 + 1000 \times 80$
= Rs. 3,50,000

Note: यदि Real GDP गर्दै गर्दा Price समानु पर्ने। जुन year को गर्दै छौ, त्यो नबदा अगाडिको समान राख्ने।
∴ Price P_A, P_B Real GDP मा Base Year price राख्ने

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Real GDP for 2022 $= Q_A \times P_A + Q_B \times P_B$

$= 350 \times 900 + 1300 \times 80$

$=$ Rs. 4,19,000

Real GDP for 2023 $= Q_A \times P_A + Q_B \times P_B$

$= 375 \times 1000 + 1700 \times 120$

$=$ Rs. 5,79,000

(#) For GDP Deflator

GDP deflator for 2021 $= \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$

$= \frac{3,50,000}{3,50,000} \times 100$

$= 100$

GDP deflator for 2022 $= \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$

$= \frac{5,06,000}{4,19,000} \times 100$

$= 120.76$

GDP deflator for 2023 $= \frac{6,88,000}{5,79,000} \times 100$

$= 118.8$

(#) Rate of inflation

Rate of inflation for 2022 $= \frac{\text{change in GDP Deflator}}{\text{Base year GDP Deflator}} \times 100\%$

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$$= \frac{120.76 - 100}{100} \times 100\%$$

$$= 20.76\%$$

$$\text{Rate of inflation for 2023} = \frac{\text{change in GDP deflator}}{\text{Base Year GDP Deflator}} \times 100\%$$

$$= \frac{118.86 - 120.76}{120.76} \times 100\%$$

$$= -1.6\%$$

(2) Real GDP is better measurement of welfare than Nominal GDP because real GDP include change in price or inflation whereas Nominal GDP do not change it's price level or inflation.

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12. 2081 Partial Q.No. 16

Consider the following data:

Year	P_X	Q_X	P_Y	Q_Y
2079	100	1000	20	200
2080	115	1200	25	220
2081	125	1500	35	230

1. Compute nominal GDP, real GDP, GDP deflator and rate of inflation.
2. Why do business firms use real GDP in analyzing business environment? [8+2]

13. 2080 Partial Q.No. 16

Consider the following data for a hypothetical economy: [8+2]

Year	P_x	Q_x	P_Y	Q_y
2021	20	1000	100	200
2022	24	1300	115	210
2023	30	1500	125	220

1. Compute nominal GDP, real GDP, GDP deflator and rate of inflation.
2. Differentiate nominal GDP and real GDP

H.W

16. 2077 Q.No. 13

Calculate the GNP, NNP, NI, PI & DI from the data given below:

Items	Rs. in million
Gross domestic product	3,000
Net factor income from abroad	10
Capital consumption allowance	600
Indirect taxes	400
Corporate profits	300
Social security contribution	500
Government & business transfers	725
Dividends	175
Personal taxes	415

Ans: GNP = Rs. 3,010; NNP = Rs. 2,410; NI = Rs. 2,010; PI = Rs. 2,110 and DI = Rs. 1,695

Solution of Q.N. 16

GDP at mp = Rs. 3000

↓

GNP at mp = GDP at mp + Net factor income from Abroad

= Rs. 3,000 + Rs. 10

= Rs. 3010 in million

↓

NNP at mp = GNP at mp − Depreciation [Capital consumption Allowances]

= 3010 − 600 = Rs. 2410 in million

NNP at FC = NNP at mp − Net indirect tax

= Rs. 2410 − (Indirect tax − subsidy)

= Rs. 2410 − Rs. 400

= Rs. 2010 in million

NI = NNP at FC

= Rs. 2010 in million

PI = NI − Undistributed corporate profit − Corporate income tax − Social security contribution + transfer payment

= Rs. 2010 − Rs. 125 − 0 − 500 + 725

= Rs. 2110 in million

Where,

Corporate profit = Dividend + Undistributed Corporate profit + Corporate income tax

or, 300 = 175 + UCP + 0

∴ Undistributed Corporate profit = 300 − 175

= Rs. 125 in millions

DI = PI − Personal taxes

= Rs 2110 − Rs 415

= Rs. 1695 in millions

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GDP at mp = ↓ GNP at mp = ↓ NNP at mp = ↓ NNP at FC = NI

17. 2076 Q.No. 16

Calculate: (a) National income (b) Personal income (c) Disposable income from the following data:

Items	Rs. in billion
Wages and salaries	840
Rent	400
Corporate profit taxes	400
Transfer payment	750
Dividends	1,000
Personal taxes	1,100
Interest	500
Social security contribution	250
Undistributed profit	400
Mixed income	1,050
Net factor income from abroad	1,500

Ans: NI = Rs. 6,090 billion, PI = Rs. 5,790 billion, DI = Rs. 4,690 billion

Solution of Q. 14. 17

Calc of GDP at mp by Income methods:

GDP at mp = wages and salary + Rent + Corporate income tax + Dividend + Interest + Undistributed profit + Mixed income

= 840 + 400 + 400 + 1000 + 500 + 400 + 1050

= Rs. 4590 in billion

GNP at mp = GDP at mp + Net factor income from Abroad

= Rs. 4590 + Rs. 1500

= Rs. 6090 in billion

NNP at mp = GNP at mp − Depreciation

= Rs. 6090 − 0

= Rs. 6090

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NNP at FC = NNP at mp - Net indirect tax

= Rs. 6090 - (Indirect tax - subsidy)

= Rs. 6090 in billion

(a)

NI = NNP at FC

= Rs. 6090 in billion

(b) Personal income (PI) = NI - undistributed Corporate profit - Corporate income tax - social security contribution + Transfer payment

= Rs. 6090 - Rs. 400 - Rs. 400 - Rs. 250 + Rs. 750

= Rs. 5790 in billion

(c) Disposable income (DI) = PI - personal tax

= Rs. 5790 - Rs. 1100

= Rs. 4690 in billion

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19. 2074 Q.No. 13

The following are the information of an economy.

Heading	Rs. in million
Rent Income	40
Private final consumption expenditure C	800
Net exports (x-m)	20
Interest In.	60
Profit Inc.	120
Government final consumption expenditure G	200

CS C

Net domestic capital formation Exp.	100
Compensation of employees Inc.	800
Consumption of fixed capital → Depreciation	20
Net indirect taxes	100
Net factor income from abroad	20

Calculate GNP_{MP} by income method and expenditure method. [5+5]

Ans: GDP_{MP} = Rs. 1,140 million; GNP_{MP} = Rs. 1,160 million

→ Sol:

By Income methods

GDP at mp = Rent + Interest + profit + Compensation of employee + consumption of fixed capital + Net indirect tax

= Rs. 40 + Rs. 60 + Rs. 120 + Rs. 800 + Rs. 20 + Rs. 100

= Rs. 1140 in million

By Expenditure method

GDP at mp = C + I + G + (x − m)

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= private final consumption Expenditure + [Net domestic capital Formation + Consumption of fixed capital] + Government final Consumption Expenditure + Net Export

= Rs. 800 + Rs. 100 + Rs. 20 + Rs. 200 + Rs. 20

= Rs. 1140 in million

GNP at mp Income method:

GNP at mp = GDP at mp + NFIFA → Net factor income from Abroad

= Rs. 1140 + Rs. 20

= Rs. 1160 in million

GNP at mp Expenditure method:

GNP at mp = GDP at mp + NFIFA

= Rs. 1140 + Rs. 20

= Rs. 1160 in million

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20. 2073 Q No. 13

Consider the following data and calculate GDP_{MP}, GNP_{MP}, and National Income by Income and expenditure method.

Items	Rs. in crore
Government final consumption expenditure exp^n (G)	1,000
Profits	720
Net indirect tax	110
Private final consumption expenditure exp^n (C)	1510
Net exports (x-m) exp^n	– 20
Compensation of employees	1,200
Rent	200
Interest	270
Net factor income from abroad	30
Mixed income	600
Gross domestic capital formation (I)	710
Depreciation	100

Ans: GDP_{MP} = Rs. 3,200 crore, GNP_{MP} = Rs. 3,230 crore and NI = Rs. 3,020 crore

By Income Method

GDP at mp = profit + Net indirect tax + Compensation of employees + Rent + interest + mixed income + Depreciation

= 720 + 110 + 1200 + 200 + 270 + 600 + 100

= Rs. 3200 in crore.

GNP at mp = GDP at mp + Net factor income from Abroad

= Rs. 3200 + Rs. 30

= Rs. 3230 in crore

NNP at mp = GNP at mp - Depreciation

= Rs 3230 - Rs. 100

= Rs. 3130 in crore

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NNP at FC = NNP at mp - Net indirect tax

= Rs. 3130 - Rs. 110

= Rs. 3020 in crore

National income NI = NNP at FC

= Rs 3020 in crore

By Expenditure Method

GDP at mp = C + I + G + (X - M)

= private final consumption Expenditure + Gross domestic capital formation + Government final Consumption expenditure + Net Export

= Rs. 1510 + Rs. 710 + Rs. 1000 - Rs. 20

= Rs. 3200 in crore

GNP at mp = GDP at mp + NFIFA

= Rs. 3200 + Rs. 30

= Rs. 3230 in crore

NNP at mp = GNP at mp - Depreciation

= Rs. 3230 - Rs. 100 = Rs. 3130

NNP at FC = NNP at mp - Net indirect tax

= Rs. 3130 - Rs. 110 = Rs. 3020 in crore.

NI = NNP at FC = Rs. 3020 in crore

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18. 2075 Q.No. 15

Calculate: (a) National income (b) Personal income (c) Disposable income from the following data:

Items	Rs. in crore
Wage	420
Rent	200
Corporate income tax	200
Transfer payment	375
Dividend	500
Personal direct taxes	550
Interest	250
Social security contribution	125
Undistributed profit	200
Mixed income	525
Net income from abroad	750

Ans: (a) Rs. 3,045 crore (b) Rs. 2,895 crore (c) Rs. 2,345 crore

H.W

21. 2072 Q.No. 14

With the help of following information calculate GDP_{MP}, GNP_{MP} and NNP_{MP} by using both income and expenditure method.

Items	Rs. in billion
Interest	Rs.590
Proprietor's income	484
Corporate profit	598
Net exports	–134
Consumption expenditure	5164
Capital consumption allowance	878
Indirect business taxes	676
Compensation of employees	4746
Rents	28
Gross private investment	1340
Government purchases of goods & services	1630

Ans: GDP_{MP} = Rs. 8,000 billion; GNP_{MP} = Rs. 8,000 billion; NNP_{MP} = Rs.7,122 billion

H.W

25. Calculate NI, PI, DI and personal saving from following hypothetical national income data:

Items	Rs. in million
GDP at MP	10,000
Net Indirect taxes	2,000
Depreciation	1,000
Net factor income from abroad	1,500
Undistributed corporate profit	500
Corporate income taxes	1,000
Dividend	3,000
Social security contribution	500
Transfer payment	1,500
Private consumption expenditure	6,000
Personal taxes	500

Ans: Rs. 8,500 million; Rs. 8,000 million; Rs. 7,500 million; Rs. 1,500 million

H.W

GDP Deflator: 100; 120.76; 118.82; Rate of inflation: -; 20.76; 1.6

15. 2079 Q.No. 12

Industry A imports goods worth Rs. 200,000 from China and sells the goods to industry B for Rs. 400,000 and to industry C for Rs. 280,000. Industry B purchases goods worth Rs. 80,000 from industry M and sells the goods to industry C for Rs. 60,000 and exports in India for Rs. 160,000. Industry C purchases goods from industry N worth Rs. 60,000 and sells the goods to household for Rs. 680,000. Using this information,

1. Compute GDP_{MP} by value-added method.
2. Does this method avoid using double counting? Give reasons. [8+2]

Ans: 1 Rs. 640,000 2 Yes

Soln

Industry	Sales price Rs.	Purchase price Rs.	Valued Added Rs.
A	Sales to B: 4,00,000 Sales to C: 2,80,000	Import from china 2,00,000	Rs. 4,80,000
B	Sell to C: 60,000 Export in India: 160,000 Rs. 2,20,000	Purchase from M Rs. 80,000 Purchase from A Rs. 4,00,000 Rs. 4,80,000	-Rs. 2,60,000
C	Sell to Household: Rs. 6,80,000 Rs. 6,80,000	Purchase from N: Rs. 60,000 Purchase from A: 2,80,000 Purchase from B: 60,000 Rs. 4,00,000	Rs. 2,80,000
M	Sell to B: 80,000	—	Rs. 80,000
N	Sell to C: 60,000	—	Rs. 60,000
		Total value Added =	Rs. 6,40,000

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∴ GDP at mp by valued Added method = Rs. 6,40,000

(2) Yes, this methods avoid double counting system because, It avoid value of intermediate goods that are use to produce final goods.

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33. 2078 Q.No. 17

Consider the following figures for national income accounts:

Description	Rs. in million
Wages and salaries	44,000
Proprietor's income	6,000
Government consumption	6,000
Receipts from the rest of the world – NFIFA	800
Private consumption expenditure	52,960
Changes in inventories (I)	-400
Subsidy	1,600
Rental income	1,800
Net interest	3,000
Dividends	3,600
Mixed -income	2,000
Social security contributed by employer's Income	3,000
Corporate income	10,000
Direct taxes	1,860
Current transfers from the rest of the world	5,000
Corporate income taxes	2,400
Capital consumption allowance	3,200
Social insurance payment	13,600
Current transfers from government	8,000

Indirect business taxes	3,600
Imports	2,600
Government investment	3,600
Payments to the rest of the world – NFIFA	1,600
Net fixed capital formation	10,800
Exports	1,440
Current transfers from business firms	3,000
Interest paid by the consumer	4,000

(i) Compute NNP_{MP} by both income and expenditure methods.
(ii) Compute personal disposable income. PI, DI
(iii) State the significance of real GDP in economic analysis.
(iv) What types of conceptual difficulties are encountered in the measurement of GDP by product method? [(4+4)+2+2+3]

Ans: (i) Rs. 71,000 million (ii) Rs. 63,140 million

Sol^{n} : (1)

GDP at mp by Income Methods

GDP at mp = wages and salary + propitor income + Rental income + Net interest + mixed income + Social security contribution by employer's + Corporate income + Capital consumption Allowances + [Indirect business tax − Subsidy]

$= 44,000 + 6000 + 1800 + 3000 + 2000 + 3000 + 10,000 + 3200 + (3600 - 1600)$

$=$ Rs. 75,000 in million

GDP at mp by Expenditure method:

GDP at mp $= C + I + G + (X - M)$

= private consumption Expenditure + Government Consumption + Government investment + Export − Import + [Net fixed Capital formation + change in inventory + Capital consumption Allowance]

$= C + G + (X-M) + I$

$= 52960 + (6000 + 3600) + 1440 - 2600 + (10800 - 400 + 3200)$

= Rs. 75,000 in million

GNP at mp by Income and Expenditure method

GNP at mp_{Income} = GDP at mp + Net factors income from Abroad

= Rs. 75000 + (Receipt − payment rest of world)

= Rs. 75000 + (800 − 1600)

= Rs. 74,200 in million

GNP at $mp_{expenditure}$ = GDP at mp + NFIFA

= Rs. 74,200 in million

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NNP at mp by income and Expenditure method

NNP at mp_{income} = GNP at mp - Capital consumption Allowances

= Rs. 74,200 - Rs. 3200

= Rs. 71,000 in million

NNP at $mp_{expenditure}$ = GNP at mp - Capital consumption Allowances

= Rs. 71,000 in million

(2) Calculation of PI and DI

NNP at FC = NNP at mp - Net indirect tax

= 71,000 - (Indirect tax - subsidy)

= 71,000 - (3600 - 1600)

= Rs. 69,000 in million

NI = NNP at FC

= Rs. 69,000

Then,

PI = NI - Undistributed Corporate profit - (Corporate income tax + Social security contribution) + transfer payment

= Rs. 69,000 - Rs. 4000 - Rs. 2400 - 1360 + (5000 + 8000 + 3000) Transfer

= Rs. 65,000

[∵ Transfer payment = current transfer + transfer from government + transfer from Business]

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Where,

profit [corporate income] = Dividend + Undistributed Corporate profit + corporate income tax

or, 10,000 = 3600 + UCP + 2400

or, 10,000 = 6000 + UCP

∴ Undistributed Corporate profit = Rs. 4000

DI (Disposable income)

DI = PI - Direct / personal tax

= Rs. 65,000 - Rs. 1860

= Rs. 63,140 in milliy

(3) Significant of Real GDP in Economic Analysis:

(1) Real GDP

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32. 2082 Q.No. 19

Consider the following data:

Description	Rs. in billions
Dividends	459
Business interest payments	946
Addition to stocks	– 3
Personal taxes	413
Personal consumption expenditure	11,943
Government and business transfers	2,000
Net indirect taxes	739
Net fixed capital formation	1,671
Depreciation	708
Current transfers from rest of the world	1,182
Corporate profits	2,059
Exports	1,048
Rental income	682
Government consumption	757
Wages and salaries	8,000
Imports	1,540
Interest	264
Employer's contribution to social security	1,186
Social insurance payments	1,000

❶ Compute GDP_{MP} by both expenditure and income methods.
❷ Compute personal income.
❸ Differentiate nominal GDP and real GDP. [(4+4)+4+3]

Ans: ❶ Rs. 14,584 billion ❷ Rs. 13,719 billion

→ Solution;

① GDP at mp by Expenditure methods:

GDP at mp = C + I + G + (x − M)

= personal consumption Expenditure + Government Consumption + (Export − Import) + [Net fixed capital formation + Depreciation + change in stock] I

= 11943 + 757 + (1048 − 1540) + 1671 + 708 − 3

= ₹ 14,584 in billions.

GDP at mp by Income Methods

GDP at mp = Net indirect tax + Depreciation + Rental income + wages and salary + Interest + Employer's Contributed to social security + Corporate profit + Business interest received

= 739 + 708 + 682 + 8000 + 264 + 1186 + 2059 + 946

= Rs. 14,584 in billions

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(2) PI = ?

GNP at mp expenditure = GDP at mp + Net factor income from Abroad
= Rs. 14,584 + 0
= Rs. 14,584

GNP at mp income = Rs. 14,584

NNP at mp income = GNP at mp - Depreciation
= 14584 - 708
= Rs. 13,876

NNP at mp expenditure = Rs. 13,876

NNP at FC income = NNP at mp - Net indirect tax
= Rs. 13876 - Rs. 739
= Rs. 13,137

NNP at FC expenditure = Rs. 13,137

NI (National income) = Rs. 13,137

Personal income (PI) = NI - undistributed Corporate profit - Social security contribution - Corporate income tax + Transfer payment

= Rs. 13137 - Rs. 1600 - Rs. 1000 - 0 + 2000 + 1182

= Rs. 13791 in billion

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Where,

Corporate profit = Dividend + Undistributed Corporate profit + Corporate income tax

or, 2059 = 459 + UCP + 0

∴ Undistributed Corporate profit = 2059 - 459

= Rs. 1600

Difference between Nominal GDP and Real GDP

Difference Between Nominal GDP and Real GDP

BBS 2nd Year Macroeconomics

Basis	Nominal GDP	Real GDP
Meaning	GDP measured at current year's prices	GDP measured at base year's prices
Effect of price chang	Includes price changes	Excludes price changes
Measurement	Shows both changes in output and prices	Shows changes in actual production/output
Use	Useful for measuring current market value	More useful for measuring economic growth
Example	Current quantity × current price	Current quantity × base-year price

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Unit 2 Theory

1. Differentiate between Money Flow and Real Flow.

Money Flow	**Real Flow**
It refers to the flow of **money payments** among different sectors of an economy.	It refers to the flow of **goods, services, and factor services** among different sectors.
Example: Wages paid to workers.	Example: Labor services provided by workers.

2. Double counting may occur under the final product method. Why?

Double counting may occur under the final product method when **intermediate goods are mistakenly included along with final goods** in calculating national income. This causes the value of the same product to be counted more than once and **overstates national income**. अन्तिम उत्पादन विधिमा **मध्यवर्ती वस्तुहरूलाई पनि अन्तिम वस्तुसँग समावेश गरी गणना गर्दा** दोहोरो गणना हुन सक्छ। यसले एउटै वस्तुको मूल्य एकभन्दा बढी पटक गणना हुने भएकाले **राष्ट्रिय आय बढी देखाउँछ।**

3. How is Per Capita Income computed?

Per capita income is calculated by dividing national income by total population.

Formula:

Per Capita Income = National Income / Total population

4. Write any two differences between Nominal GDP and Real GDP.

Nominal GDP	**Real GDP**
It is measured at **current prices**.	It is measured at **constant/base-year prices**.
It is affected by changes in both **price and quantity**.	It reflects changes mainly in **actual output/quantity**.

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5. What are the components of Gross Private Domestic Investment?

The major components of **Gross Private Domestic Investment (GPDI)** are:

1. **Non-residential fixed investment**
2. **Residential fixed investment**
3. **Change in business inventories**

6. Prepare a list of components of Gross Private Domestic Investment.

The components of Gross Private Domestic Investment are:

- Business fixed investment
- Residential construction investment
- Change in inventories

Thus,

GPDI=Fixed Investment+Residential Investment+Inventory Investment

7. What is Real GDP?

Real GDP is the monetary value of all final goods and services produced within a country during a given period, measured at constant prices of a base year. It shows the change in actual output by eliminating the effect of price changes. वास्तविक GDP भनेको निश्चित अवधिमा देशभित्र उत्पादन भएका अन्तिम वस्तु तथा सेवाहरूको आधार वर्षको स्थिर मूल्यमा मापन गरिएको मौद्रिक मूल्य हो। यसले मूल्य परिवर्तनको प्रभाव हटाई वास्तविक उत्पादनमा भएको परिवर्तन देखाउँछ।

8. What is GDP?

GDP (Gross Domestic Product) is the total monetary value of all final goods and services produced within the geographical boundaries of a country during a particular period, usually one year. सकल घरेलु उत्पादन (GDP) भनेको कुनै देशको भौगोलिक सीमाभित्र एक निश्चित अवधिमा (सामान्यतया एक वर्षमा) उत्पादन भएका अन्तिम वस्तु तथा सेवाहरूको कुल मौद्रिक मूल्य हो।

Simple definition:
GDP measures the total production of goods and services inside a country in a year.

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9. Define National Income

National Income is the total income earned by the factors of production of a country during a particular period, usually one year.

It includes income in the form of wages, rent, interest, and profit earned from economic activities

राष्ट्रिय आय भनेको कुनै देशका उत्पादनका साधनहरूले एक निश्चित अवधिमा (सामान्यतया एक वर्षमा) प्राप्त गरेको कुल कारक आय हो। यसमा ज्याला, भाडा, ब्याज र नाफा समावेश हुन्छ।

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Explain the process of computing GDP by the Value Added Method. In what respect does this method differ from the Final Product Method?

Analytical Answer Questions **[15 marks]**

13. 2080 Partial Q.No. 17

Explain the process of measuring GDP by expenditure and income methods with examples What types of practical difficulties are encountered in the measurement of GDP? [10+5]

खर्च र आयविधिबाट कुल गार्हस्थ्य उत्पादन गणना गर्ने प्रक्रिया उदाहरणसहित व्याख्या गर्नुहोस् । कुल गार्हस्थ्य उत्पादन मापन गर्दा आइपर्ने व्यावहारिक कठिनाइहरू के के हुन् ?

14. 2080 Q.No. 18

Explain the process of measuring GDP by product method with examples. What types of conceptual difficulties are encountered in the measurement of GDP by product method? [10+5]

उत्पादन विधिद्वारा राष्ट्रिय आम्दानीको गणनाको प्रक्रिया उदाहरणसहित व्याख्या गर्नुहोस् । उत्पादन विधिद्वारा कुल

H.W

10. 2081 Q.No. 11

Explain the process of computing nominal GDP, real GDP, GDP deflator and rate of inflation with examples.

नौमिक कुल गार्हस्थ्य उत्पादन, वास्तविक कुल गार्हस्थ्य उत्पादन, कुल गार्हस्थ्य उत्पादन डिफ्लेटर र मुद्रास्फीतिको

H.W

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