Class: XII	Department: Commerce
Worksheet No: 4	Topic: National Income Aggregates (Part:2)

NATIONAL INCOME SUMS

Q1) Calculate i) GDPfc
ii) Factor Income to Abroad

1. COE   800
2. Profit   200
3. Rent   150
4. Interest   100
5. Dividend   50
6. GNPmp   1400
7. GDCF   300
8. NDFCF   200
9. Change in Stock   50
10. FIfA   60
11. NIT   120

Soln: * NDPfc = COE + Rent + Int + Profit + MI = 1250
* GDCF = GDFCF + Δ in stock = NDFCF + Dep + Δ in stock
Substituting Dep = 50
* GDPfc = NDPfc + Dep; Substituting GDPfc = 1300
* GNPmp = GDPfc + NIT + NFIfA
Substituting NFIfA = (-) 20
NFIfA = FIfA – FItA
Substituting FItA = 80

NOTE: Dividend is redundant because it is already included in profit.

2. Calculate i) NI ii) Depreciation

Sl.No.	Item	In Rs Crores
i.	PFCE	210
ii.	GDPmp	320

iii.	Wages and salary	170
iv.	Employer's contribution to SSS	10
v.	Interest	20
vi.	IT	30
vii.	Subsidy	5
viii.	Rent	10
ix.	Profit	45
x.	Royalty	15
xi.	NFIfA	3

Soln:* NDPfc = Wages & Salary + Employer's contribution to SSS + Interest + Rent + Profit = 270
* NNPfc = NI = NDPfc + NFIfA . Substituting NNPfc = 273
* NDPfc = GDPmp – Dep + NIT. Substituting Dep = 25

3. Calculate NI by i. Output Method
ii. Income Method

Sl.No.	Item	In Rs Crores
i.	Value of output	800
ii.	Value of IC	400
iii.	Wages and salary	110
iv.	Employer's contribution to SSS	10
v.	Interest & Profit	20
vi.	IT	60
vii.	Subsidy	10
viii.	Rent & Royalty	40
ix.	Consumption of fixed capital	50
x.	FItA	20
xi.	FIfA	10
xii.	MI	120

Soln:* **NI by Output Method**
GDPmp = Value of output – IC
NNPfc = GDPmp – Dep + NFIfA – NIT
Substituting NNPfc = NI = 290
* NI by Income Method:
NDPfc = Wages & Sal + employer's contribution to SSS = Rent + Royalty + Interest + Profit + Mixed Income
NNPfc = NDPfc + NFIfA
Substituting NNPfc = 290

4. Calculate NI by i. Output Method
ii. Expenditure Method

Sl.No.	Item	In Rs Crores
i.	GDCF	250
ii.	Net Export	-50
iii.	PFCE	1000
iv.	Value of output of primary sector	900
v.	Value of output of secondary sector	800
vi.	Value of output of tertiary sector	400
vii.	IC of primary sector	400
viii.	IC of secondary sector	300
ix.	IC of tertiary sector	100
x.	Consumption of fixed capital	80
xi.	IT	100
xii.	GFCE	100
xiii.	Subsidies	10
xiv.	NFIfA	- 20

Soln:* NI by Output Method
GDPmp = Value of output – IC
= (Value of output of primary sector + Value of output of secondary sector + Value of output of Tertiary sector) – (IC of primary sector + IC of secondary sector + IC of Tertiary sector)
NNPfc = GDPmp – Dep + NFIfA – NIT
Substituting NNPfc = NI = 1110
* NI by Expenditure Method:
GDPmp = PFCE + GFCE + GDCF + Net export
NNPfc = GDPmp – Dep + NFIfA – NIT
Substituting NNPfc = 1110

5. Calculate NI by i. Expenditure Method
ii. Income Method

Sl.No.	Item	In Rs Crores
i.	PFCE	800
ii.	GFCE	300
iii.	COE	600
iv.	Employee's contribution to SSS	60
v.	Interest	80
vi.	NIT	100
vii.	Dividend	150
viii.	Rent & Royalty	120

ix.	Consumption of fixed capital	20
x.	Undistributed profit	80
xi.	NFIfA	-70
xii.	Corporate tax	50
xiii.	Net Imports	50
xiv.	GDCF	150

Soln: NI by Expenditure Method:
GDPmp = PFCE + GFCE + GDCF + Net export
NNPfc = GDPmp – Dep + NFIfA – NIT
 GNPfc = NNPfc + Dep
Substituting GNPfc = 1030

* NI by Income Method:
NDPfc = COE + = Rent + Royalty + Interest + Profit + Mixed Income
Profit = Dividend + Undistributed profit + Corporate Tax,
NNPfc = NDPfc + NFIfA
GNPfc = NNPfc + Dep
Substituting GNPfc = 1030
NOTE
* i. Employee's contribution to SSS is not included
* ii. MI = 0

6. Calculate GNPmp by i. Expenditure Method
ii. Income Method

Sl.No.	Item	In Rs Crores
i.	PFCE	900
ii.	GFCE	450
iii.	COE	500
iv.	Employee's contribution to SSS	60
v.	Interest	150
vi.	NIT	100
vii.	Mixed Income	400
viii.	Rent & Royalty	100
ix.	Consumption of fixed capital	120
x.	Profit	350
xi.	NFIfA	-20
xii.	Net Exports	-30
xiii.	NDCF	280

Soln: NI by Expenditure Method:

GDPmp = PFCE + GFCE + GDCF + Net export

= PFCE + GFCE +NDCF + Dep + Net export = 1720

GNPmp = GDPmp + NFIfA = GNPmp = 1700

* NI by Income Method:

NDPfc = COE + = Rent + Royalty + Interest + Profit + Mixed Income = 1500

NDPfc + NFIfA + Dep + NIT = GNPmp = 1700

7. Calculate i. GDPmp
ii. FIfA

Sl.No.	Item	In Rs Crores
i.	GNPfc	2800
ii.	GFCF	700
iii.	COE	1500
iv.	Net current transfer from ROW	90
v.	Interest	400
vi.	NIT	250
vii.	Mixed Income	0
viii.	Rent & Royalty	300
ix.	Profit	500
x.	Change in stock	50
xi.	FItA	120
xii.	Exports	40
xiii.	NDCF	650

Soln: * GDPmp = NDPfc + Dep + NIT   (Eqn 1)

** NDPfc = COE + = Rent + Royalty + Interest + Profit + Mixed Income = 2700

NDPfc + NFIfA = GNPfc

Or 2700 + Dep +NFIfA = 2800   or NFIfA = 0

NDCF + Dep = GDCF = GDFCF + Ch in stock

Or Dep = 100

Substituting in Eqn 1 we get GDPmp = 2700 + 100 +250 =3050

NFIfA = FIfA – FItA = 0

or FIfA = FItA +0 = 120