

Question Number :

I.

$$\begin{aligned} a \quad GDP &= C + I + G + X - M \\ &= 2110 + 440 + 646 + 86 - 20 \\ &= 3212 \text{ b.} \end{aligned}$$

$$\begin{aligned} b \quad NDP &= GDP - \text{dep} \\ \text{or } \text{dep} &= GDP - NDP \\ &= 3212 - 2992 \\ &= 220 \text{ b.} \end{aligned}$$

$$\begin{aligned} c \quad NDP_{Fc} &= NDP_{MP} - \text{I. business taxes} \\ &= 2872 - 296 \\ &= 2576 \text{ b.} \end{aligned}$$

$$d \quad NDP_{Fc} = \text{Compensation of employees} + (R+I) + \text{Proprietors income} + \text{Corporate profits}$$

$$\text{or } 2576 = \text{Com. E.} + 196 + 146 + 202$$

$$\text{or } \text{Com. E.} = 2032 \text{ b.}$$

$$\begin{aligned} NI &= NDP_{Fc} + \text{NFIA} \\ &= 2576 \text{ b.} \end{aligned}$$

$$\begin{aligned} E \quad \text{PI} &= NI - \text{Cor. Income taxes} - \text{Retained earnings} - \text{Social Security con.} \\ &\quad + \text{Transfer payment} + I. \\ &= 2576 - 112 - 48 - 240 + 460 \\ &= 2626 \text{ b.} \end{aligned}$$

$$F \quad DI = PI - \text{P.I.T.}$$

$$G. \text{ Net Export} = X - M$$

$$\text{or } \text{PIT} = \text{PI} - \text{DI}$$

$$= 16 \text{ b.}$$

$$= 2626 - 2246$$

$$= 380 \text{ b.}$$

Question Number :

2.

$$\begin{aligned} \text{a. } \text{GNP} &= \text{GDP} - \text{NFA} \\ &= C + I + G + X - M - \text{NFA} \\ &= 7818 + 1998 + 2497 + 1089 - 1653 \\ &= \text{Rs } 11749 \text{ b.} \end{aligned}$$

$$\begin{aligned} \text{b. } \text{NNP} &= \text{GNP} - \text{dep.} \\ &= \text{Rs } 11749 - 1324 \\ &= \text{Rs } 10425 \text{ b.} \end{aligned}$$

$$\begin{aligned} \text{c. } \text{PS} &= \text{PI} - \text{P.C.F.} \\ &= \text{NI} - \text{Corporate Income tax} - \end{aligned}$$

$$\text{NI} = \text{NNP} - \text{NIT}$$

$$\text{PI} = 9895 \text{ b.}$$

$$\begin{aligned} \text{DI} &= \text{PI} - \text{P. Tax payments} \\ &= 9895 - 1494 \\ &= 8401 \end{aligned}$$

$$\text{DI} = \text{P. Con Exp} + \text{P. Saving}$$

$$\begin{aligned} \text{P. Saving} &= \text{DI} - \text{P. Con. Exp} \\ &= 8401 - 7818 \\ &= \text{Rs } 583 \text{ b.} \end{aligned}$$

Question Number :

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a. Nominal GDP (Product Approach) = $\sum P_i Q_i$
(Shoe industry) = 8000.

$$\begin{aligned} \text{Nominal GDP (MP)} &= \text{Gross Value of output} - \text{Cost of intermediate goods} \\ &= (2200 + 4000 + 8000) - (1200 + 800 + 200 + 1500 \\ &\quad + 2200 + 1000 + 200 + 1600 + 4000 + 1100 + 4000) \\ &= 14200 - \\ &= (2200 + 4000 + 8000) - (0 + 2200 + 4000) \\ &= 8000 \text{ b.} \end{aligned}$$

b. Nominal GDP (Value Added Method)

$$\begin{aligned} \text{Net Value added by slaughter house} &= \text{Receipts} - \text{Cost of intermediate goods} \\ &= 2200 - (200 + 800 + 200) \\ &= 2200 \end{aligned}$$

$$\begin{aligned} \text{Net Value added by leather processing} &= \text{Receipts} - \text{Cost of Inter. goods} \\ &= 4000 - (1000 + 1000 - 200) \\ &= 1800 \end{aligned}$$

$$\begin{aligned} \text{Net Value added by shoe industry} &= \text{Receipts} - \text{cost of inter goods} \\ &= 8000 - 4000 \\ &= 4000 \end{aligned}$$

$$\begin{aligned} \therefore \text{GDP}_{MP} &= \text{Value Value added in slaughter house} \\ &\quad + \\ &= 2200 + 1800 + 4000 \\ &= 8000 \text{ b.} \end{aligned}$$

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$$\begin{aligned} \text{GDP}_{FC} &= \text{Total rent} + \text{Total wages} + \text{Total interest} + \text{Total profit} \\ &= 0 + (1200 + 1500 + 1600) + (200 + 200 + 400) + (800 + 100 + 1100) \\ &= 8000 \end{aligned}$$

$$\begin{aligned} \text{GDP}_{MP} &= \text{GDP}_{FC} + \text{NIT} \\ &= 8000 + 0 \\ &= \text{Rs } 8000 \text{ B.} \end{aligned}$$

Income Approach

⑤ $\text{GNP}_{FC} = \text{NDP}_{FC} + \text{NFA} + \text{dep}$ [∵ $\text{NDP}_{FC} = \text{GDP}_{FC} - \text{dep}$]
[$\text{GNP}_{FC} = \text{GDP}_{FC} + \text{NFA}$]
[$\text{GNP}_{FC} = \text{NDP}_{FC} + \text{dep} + \text{NFA}$]

$\text{NDP}_{FC} =$ Compensation of employees

+
Operating surplus
+

Mixed income

③540
 $= 1750 + 1200 + 320$
 $= \text{Rs } 3270 \text{ m.}$

$$\begin{aligned} \text{Depreciation} &= \text{Gross capital formation} - \text{Net capital formation} \\ &= 660 - 600 \\ &= 60 \text{ m.} \end{aligned}$$

$$\begin{aligned} \therefore \text{GNP}_{FC} &= \text{NDP}_{FC} + \text{NFA} + \text{dep} \\ &= 3270 - 40 + 60 \\ &= \text{Rs } 3290 \text{ m.} \end{aligned}$$

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$$\textcircled{b} \text{GNP}_{MP} = \text{GDP}_{MP} + \text{NFIA}$$

$$= C + I + G + X - M + \text{NFIA}$$

$$= 2050 + 660 + 900 + 60 - 120 + (-40)$$

$$= \text{Rs } 3510 \text{ m}$$

(Expenditure Approach)

$$\textcircled{c} \text{NI} = \text{NNP}_{MP} - \text{NIT}$$

$$= \text{GDP}_{MP} - \text{dep}$$

$$= \text{GDP}_{MP} - \text{dep} - \text{NIT}$$

$$= 3510 - 60 + 20$$

$$= 3490 \text{ m}$$

$$\text{GNP}_{MP} = \text{GDP}_{MP} + \text{NFIA}$$

$$\text{NNP}_{MP} = \text{GNP}_{MP} - \text{dep.}$$

from Income Approach

$$\text{NI} = \text{NNP}_{FC}$$

$$= \text{GNP}_{FC} - \text{dep}$$

$$= 3490 - 60$$

$$= \text{Rs } 3490 \text{ m}$$

6 Exp. Method

$$\text{GDP}_{MP} = C + I + G + X - M$$

$$= 400 + (80) + 40 + (-10)$$

$$= \text{Rs } 510 \text{ m}$$

Income Method

$$\text{NDP}_{FC} = \text{Comp. of Exp} + \text{rent} + \text{Interest} + \text{Profit}$$

$$= (330 + 20) + 30 + 40 + 30$$

$$= 450 \text{ m}$$

$$\text{GNP}_{MP} = \text{GDP}_{MP} + \text{NFIA}$$

$$= 510 + 10$$

$$= \text{Rs } 520 \text{ m}$$

$$\textcircled{b} \text{GDP}_{FC} = \text{NDP}_{FC} + \text{dep}$$

$$= 450 + 10$$

$$= 460 \text{ m}$$

$$\textcircled{b} \text{GNP}_{FC} = \text{GDP}_{FC} + \text{NFIA}$$

$$= 460 + 10$$

$$= 470 \text{ m}$$

$$\text{NI} = \text{NNP}_{MP} - \text{NIT}$$

$$= \text{GDP}_{MP} - \text{dep} - \text{NIT}$$

$$= 520 - 10 - (60 - 10)$$

$$= 460 \text{ m}$$

$$\textcircled{c} \text{NI} = \text{NNP}_{FC} = \text{GNP}_{FC} - \text{dep}$$

$$= 470 - 10$$

$$= 460 \text{ m}$$

7. Exp Method

$$\begin{aligned}
 NI &= NNP_{MP} - NIT \\
 &= GNP_{MP} - dep - NIT \\
 &= GDP_{MP} + NFIA - dep - NIT \\
 &= C + I + G + X - M + NFIA - dep - NIT \\
 &= 200 + [60 + (-10)] + 40 + (-10) + (-20) - 0 - (50 - 10) \\
 &= 220m
 \end{aligned}$$

Income method.

$$\begin{aligned}
 NI &= NNP_{FC} \\
 &= NDP_{FC} + NFIA \\
 &= \text{com. of emp} + (\text{rent} + \text{Interest} + \text{profit}) + \text{Mixed Income} + NFIA \\
 &= (200 + 20) + 40 + 80 + (-20) \\
 &= 220m.
 \end{aligned}$$

8. Expenditure Method

$$\begin{aligned}
 GNP_{MP} &= GDP_{MP} + NFIA \\
 &= C + I + G + (X - M) + NFIA \\
 &= 800 + \underbrace{(100 + 20)}_{\text{Net Exports}} + 200 + 20 + (-20) \\
 &= Rs 1120m
 \end{aligned}$$

Income Method.

$$\begin{aligned}
 GNP_{MP} &= GNP_{FC} + NIT \\
 &= NDP_{FC} + dep + NFIA + NIT \\
 &= \\
 NDP_{FC} &= \text{Comp. of Emp} + \text{Rent} + \text{Interest} + \text{Profit} \\
 &\quad + \text{Mixed Income} \\
 &= 800 + 40 + 60 + (10 + 20 + 90) + 0 \\
 &= 1020m
 \end{aligned}$$

$$\begin{aligned}
 GDP_{FC} &= GNP_{FC} - NFIA \\
 NDP_{FC} &= GDP_{FC} - dep
 \end{aligned}$$

$$\begin{aligned}
 GNP_{FC} &= GDP_{FC} + NFIA \\
 &= NDP_{FC} + dep + NFIA
 \end{aligned}$$

$$\begin{aligned}
 \therefore GNP_{MP} &= 1020 + 20 + (-20) + 100 \\
 &= 1120m
 \end{aligned}$$

Question Number :

(a) Income Method

$$GNP_{FC} = NDP_{FC} + dep + NFA + NIT$$

$$\begin{aligned} * NDP_{FC} &= \text{Comp. of emp} + \text{rent} + \text{interest} + \text{profit} + \text{Mixed Income} \\ &= 9186 + 264 + 682 + (946 + 2059) + 0 \\ &= 13137m \end{aligned}$$

$$\begin{aligned} \therefore GNP_{FC} &= NDP_{FC} + dep + NFA + NIT \\ &= 13137 + 708 + 0 + (739 - 0) \\ &= 14584m \end{aligned}$$

Expenditure Method

$$\begin{aligned} GDP_{MP} &= C + I + G + (X - M) \\ &= 11943 + (1671 - 3) + 757 + (1048 - 1540) \\ &= 13876m \quad / \quad 14584 \end{aligned}$$

$$\begin{aligned} GNP_{FC} &= GDP_{MP} - NIT \\ &= GDP_{MP} + NFA - NIT \\ &= 13876 + 0 - 739 \\ &= \end{aligned}$$

(b) $NI = NDP_{FC} + NFA$
 $= 13137m$

$$\begin{aligned} PI &= NI - \overset{CIT.}{\text{Corporate Income tax}} - \overset{UP}{\text{Undistributed profit}} - \text{Social Security Con.} \\ &\quad + \text{transfer payment} - \text{Interest on public debt} \\ &= 13137 - (2059 - 459) - 1550 + 3182 \\ &= 13719m \end{aligned}$$

$$\begin{aligned} &\text{Corporate profit} \\ &= \text{Cor. profit tax} + \text{U.P.} + \text{Div.} \\ \text{CIT.} + \text{U.P.} &= \text{C.P.} - \text{Dividend} \\ &= 2059 - 459 \end{aligned}$$

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$$DI = PI - \text{Personal taxes}$$

$$= 13719 - 413$$

$$= 13306 \text{ m.}$$

$$\text{Personal Saving} = DI - \text{Personal Con. Exp.}$$

$$= 13306 - 11943$$

$$= 1363 \text{ m.}$$

12 Expenditure Approach

$$GDP_{MP} = C + I + G + X - M$$

$$= 2582 + (231 + 439) + 815 + (-76)$$

$$= 3993 \text{ m}$$

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

$$= 3993 \text{ m}$$

Income Method

$$NDP_{FC} = \text{Comp. of employees} + \text{rent} + \text{Interest} + \text{profit} + \text{Mixed income}$$

$$= 2373 + 14 + 288 + (249 + 86 + 84 + 129) + 0$$

$$= 3210 \text{ m.}$$

$$GDP_{FC} = NDP_{FC} + \text{dep.}$$

$$= 3210 + 439$$

$$= 3655 \text{ m}$$

$$GDP_{MP} = GDP_{FC} + NIT$$

$$= 3655 + 338$$

$$= 3993 \text{ m.}$$

$$GNP_{MP} = 3993 \text{ m.}$$

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$$\begin{aligned} b \quad NI &= NNP_{MP} - NIT \\ &= GNP_{MP} - dep - NIT \\ &= 3993 - 439 - 338 \\ &= 3216 m \end{aligned}$$

$$\begin{aligned} PI &= NI - \text{Corporate income tax} - \text{undistributed profit} - \text{Social security} \\ &\quad \text{contribution} + \text{transfer payment} + \text{Interest on Public debt} \\ &= 3216 - 86 - 129 - 0 + 0 + 0 \\ &= 3001 m \end{aligned}$$

$$\begin{aligned} PDI &= PI - \text{Personal taxes} \\ &= 3001 - 493 \\ &= 2508 m \end{aligned}$$

(14) Income method.

$$\begin{aligned} GNP_{MP} &= GNP_{FC} + NIT \\ &= NDP_{FC} + dep + NFA + NIT \end{aligned}$$

$$\begin{aligned} NDP_{FC} &= \text{Comp. of emp} + \text{rent} + \text{Interest} + \text{Profit} + \text{Mixed Income} \\ &= 442 + 28 + 26 + (62 + 42 + 38 + 32) + 0 \\ &= 670 m \end{aligned}$$

$$\begin{aligned} \therefore GNP_{MP} &= NDP_{FC} + dep + NFA + NIT \\ &= 670 + 54 + 0 + 36 \\ &= 760 m \end{aligned}$$

$$\begin{aligned} NNP_{MP} &= NNP_{FC} + NIT \\ &= NI + NIT \\ &= NDP_{FC} + NFA + NIT \\ &= 670 + 0 + 36 \\ &= 706 m \end{aligned}$$

Question Number :

Expenditure Approach

$$\begin{aligned} \text{GDP}_{mp} &= C + I + G + X - M \\ &= 490 + (66 + 54) + 104 + 6 \\ &= 760m \end{aligned}$$

$$\begin{aligned} \therefore \text{GNP}_{mp} &= \text{GDP}_{mp} + \text{NFIA} \\ &= 760m \end{aligned}$$

$$\begin{aligned} \text{NNP}_{mp} &= \text{GNP}_{mp} - \text{dep} \\ &= 760 - 54 \\ &= 706m \end{aligned}$$

$$\begin{aligned} \textcircled{b} \text{ NI} &= \text{NNP}_{mp} \\ &= \text{NNP}_{mp} - \text{NIT} \\ &= 706 - 36 \\ &= 670m \end{aligned}$$

$$\begin{aligned} \text{PI} &= \text{NI} - \text{Social Security contribution} - \text{undistributed profit} \\ &\quad - \text{Corporate income tax} + \text{transfer payment} \\ &\quad + \text{Interest on Public debt} \\ &= 670 - 40 - 42 - 38 + 24 + 0 \\ &= 574m \end{aligned}$$

$$\begin{aligned} \text{PDI} &= \text{PI} - \text{Personal taxes} \\ &= 574 - 62 \\ &= 512m \end{aligned}$$