**Formulas Required to solve:**

1. GDP using income approach = Wages + Rents + Interest + Profits + Misc. Income of Self Employed

2. GDP using expenditure approach = C + I + G + X (Exports) – Imports (I)

3. NDP = GDP – Depreciation

4. GDP at factor cost = GDP at market price + Subsidies (S) – Indirect taxes (IT)

5. GNP = GDP + Net Factor Income from Abroad

6. Net Factor Income from Abroad = Income earned by residents in foreign – Income earned by foreigners in India

**Questions:**

1. Calculate value added in the production of a gallon of Gasoline from the table below:

**[2 marks]**

|  |  |  |
| --- | --- | --- |
| Production Stage | Value of Sales | Value Added |
| Oil drilling | $3.00 |  |
| Refining | $3.30 |  |
| Shipping | $3.60 |  |
| Retail sale | $4.00 |  |
| Total |  |  |

2. Fill in the blank spaces in the table below: **[2.5 marks]**

|  |  |  |
| --- | --- | --- |
| Item no. | National income aggregate | Value as on March 2004-05 |
| 1 | GNP at market price | 31,03,498 |
| 1.1 | Indirect taxes | 3,66,643 |
| 1.2 | Subsidies | 89,126 |
| **2** | **GNP at factor cost** |  |
| 2.1 | Net factor income earned abroad | -17,916 |
| **3** | **GDP at factor cost** |  |
| 3.1 | Capital consumption | 2,94,758 |
| **4** | **NNP at factor cost** |  |
| **5** | **NDP at factor cost** |  |
| **6** | **NNP at market price** |  |

3. You have the following information: **[2 marks]**

|  |  |
| --- | --- |
| Indirect taxes | 2,47,528 |
| Subsidies | 55,383 |
| Net factor income from abroad | -17,414 |
| Capital consumption/depreciation | 1,98,447 |
| GDP at factor cost | 18,95,843 |

Based on the above table calculate the following:

i. GNP at factor cost

ii. GNP at market price

iii. NNP at factor cost

iv. NDP at factor cost

4. Calculate GDP using **expenditure and income approach** from the information given below: **[2 marks]**

|  |  |
| --- | --- |
| Transfer payments | $54 |
| Interest income | $530 |
| Depreciation | $400 |
| Wages | $3,254 |
| Gross Private Investment | $741 |
| Business Profits | $341 |
| Indirect Business Taxes | $500 |
| Rental Income | $17 |
| Exports – Imports | -$31 |
| Net Factor Income from Abroad | $20 |
| Government Purchases | $1,098 |
| Household Consumption | $3,657 |
| Proprietor’s Income | $403 |

**5.** Consider the data below for a simple economy: Using 2011 as the base year, calculate nominal GDP, real GDP, and the GDP deflator for 2016. Show your work. **[1.5 marks]**

**2011 2015 2016**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Product** | **Quantity** | **Price** | **Quantity** | **Price** | **Quantity** | **Price** |
| Pen | 40 | Rs.250.00 | 45 | Rs.200.00 | 50 | Rs.150.00 |
| Lozenge | 2,000 | 2.00 | 2,200 | 2.25 | 2,300 | 2.40 |
| Coats | 300 | 50.00 | 310 | 52.00 | 350 | 55.00 |