Unit - National Income

1. When does Net Factor Income from Abroad (NFIA) shows Negative Value? [2]

OR

State the meaning of retained earnings.

Ans. NFIA shows negative value when factor income from abroad exceeds factor income to abroad. NFIA = Factor income from abroad - Factor income to abroad

Suppose, Factor Income from abroad = ₹ 40

Factor Income to abroad = ₹ 60

Then,

NFIA (40 - 60) = ₹ (-20)

OR

Retained Earnings: It refers to that part of corporate profits which is not distributed among shareholders. It is also known as Savings of Companies or Undistributed Profits.

2. Giving valid reasons, explain how the following would be treated while estimating National income: [3]

(a) Payment of indirect taxes by a firm.

(b) Purchase of goods by foreign tourists.

Ans. (a) Payment of Indirect taxes by a firm: It is not included in national income because it is paid to government and national income includes factor income accrue to factors of production.

(b) Purchase of goods by foreign tourists: It is included in national income because it represents demand of domestically produced goods and national income includes domestic income.

3. Using the following information, calculate and analyse the value of Gross Domestic Product (GDP) deflator:

Year	2014-15	2016-17
Nominal GDP	6.5	9
Real GDP	6.5	7.2

Ans.

GDP Deflator (2014-15) = $\frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$

$= \frac{6.5}{6.5}$ x 100=100

GDP Deflator (2016-17) = $\frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$

$= \frac{9}{7.2} \times 100 = 125$

Analysis:

In 2016-17, GDP deflator of 125 shows that prices have increased 25% as compared to the base year (2014-15)

It is a warning for the economy to take necessary steps to control inflation.

4. (i) Discuss briefly the concept of 'Externalities', with suitable example. [3]

(ii) Export are not a part of 'Net Factor Income from abroad'. Elaborate the reason behind the given statement. [2]

Ans. (i) Externalities: It refers to the good or bad impact of an activity without paying any price or penalty for that.

1. Positive Externality: Good impact on third party without paying price is positive externality. For E.g. Construction of a flyover reduces journey time, beautiful park in front of your house, etc.

2. Negative Externality: Bad impact on third party without his/her own fault. For E.g. Contaminated water factories, Smoke emission from chimneys of factories, etc.

(ii) Exports are not a part of NFIA.

Reasons:

1. NFIA represents the difference between factor income from abroad and factor income to abroad. And Factor income is the reward for rendering factor services i.e. Rent, wages and salaries, interest and profit.
2. Exports represent the demand (or Expenditure on) of domestically produced goods and services by foreigners. So, it is a part of GDP.

5. State any two precautions that are taken while estimating National Income by Expenditure Method. [2]

OR

Distinguish between Gross Domestic Product at Market Price and Net Domestic Product at Market Price. [2]

Ans.

- The expenditure on only final goods and services is to be taken into account to avoid the error of double counting.
- The imputed value of goods used for self- consumption must be taken into consideration.

OR

The difference between Gross Domestic Product at Market Price and Net Domestic Product at Market Price is the depreciation. Hence, NDPMP GDPMP - Depreciation

6. State any two precautions that are taken while estimating National income by value added method. [2]

OR

Distinguish between depreciation and capital loss.

Ans. Two precautions that are taken while estimating National Income by value added method are the following:

1. The Value of buying and selling second hand goods is not taken into consideration while calculating national income by the value-added method.

2. The imputed value of goods produced for self-consumption must be taken into consideration.

OR

Depreciation refers to the normal wear and tear of the capital assets which take place during the production of goods and services. The Normal rate of accidental damage which can be repaired non easily and expected technological obsolescence are also included in depreciation. Capital loss includes unexpected technological obsolescence and capital damage beyond economical repair.

7. (a) Distinguish between Factor Income and Transfer Income. [2]

OR

(b) Distinguish between Domestic Income and National Income.

Ans. (a) A factor income refers to income earned by a person as a reward for rendering his factor service such as rent, wages, interest etc. whereas transfer income refers to unearned income such as old age pension, gifts, scholarship etc.

OR

(b) The sum total of factor incomes generated by all the producing units located within the domestic territory of a country during an accounting period is called domestic income whereas national income is the sum total of factor incomes earned by normal residents of a country during an accounting year. The difference between the two is net factor income from abroad which is added to domestic income to get national income.

National Income Domestic Income + NFIA

8. Giving valid reasons, explain how the following would be treated while estimating domestic income? [3]

(i) Payment made by a Japanese tourist for goods purchased in India.

(ii) Broker's commission on the sale of second hand goods.

OR

"Gross Domestic Product (GDP) as an indicator of welfare loses its significance if the distribution of income turns unequal." Justify the given statement with valid reason.

Ans. (i) Goods purchased by foreign tourists are produced in the domestic territory. So, it will be included in domestic income.

(ii) It would be included in domestic income as he earned the commission by giving service and it was a productive service.

OR

Yes, this statement is absolutely true. A mere rise in GDP may not lead to a rise in economic welfare. It is significant only when distribution is equal. If it is not equally distributed, it will make the rich richer and the poor poorer. So, this indicator does not fit in the case when distribution is unequal.

9. (a) Distinguish between Factor Cost and Market Price. [2]

OR

(b) Distinguish between Factor Income and Transfer Income. [2]

Ans. (a) MP is the price paid by the buyer of a commodity in the market whereas FC is the cost paid by the producer to the factor of production for their services rendered in the production of the commodity.

MP = FC + NIT (IT - Subsidies)

FC = MP – NIT

(NIT→ Net Indirect taxes)

OR

(b) A factor income refers to income earned by a person as a reward for rendering his factor service whereas transfer income refers to unearned income.

10. Define inventory (stock).

Ans. Inventory (Stock): It refers to the amount of unsold stock at a particular point of time. It is a static concept and not time dimensional. Example, stock of goods at godown on 31st July.

11. Define unplanned inventories (stock).

Ans. Unplanned inventories (stock): It refers to change in stock which has incurred unexpectedly due to unexpected fall in sales. Firm have unsold goods. For example, if a firm has opening stock of 200 unit and it wants to raise its stock from 200 to 400 units and expects sales to be 1000 units it will produce 1200 if the end of the year it is found actual sales were 900 units then closing stock will be:

Opening Stock + Production - Sale =200+ 1200 – 900

= 500 units

This was not unexpected that is called unplanned inventory.

12. State, whether the following statement is true or false: [1]

'Inventory is a stock variable.'

Ans. True

13. Which of the following is not a 'factor payment'? [1]

(Choose the correct alternative).

(a) Free uniform to defence personnel.

(b) Salaries to the Members of Parliament.

(c) Rent paid to the owner of a building.

(d) Scholarship given to the students.

Ans. (d) Scholarship given to the students.

14. Combined factor income, which can't be separated into various factor income components is known as ……………………….. [1]

(Fill up the blank with correct alternative).

Ans. Mixed income of self-employed.

15. 'Subsidies to the producers, should be treated as transfer payments'. Defend or refute the given statement with valid reason. [3]

OR

Explain Circular Flow of Income in a two-sector economy.

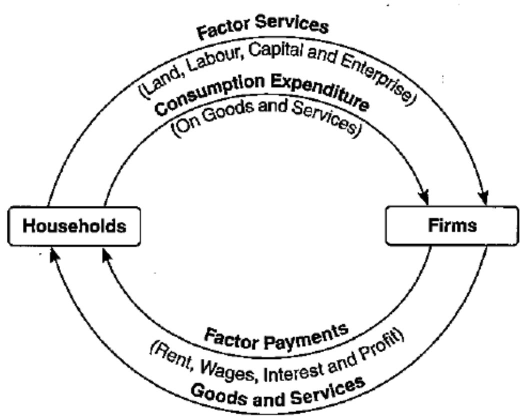
Ans. Subsidy is a support to economic sector or institution, business organisation etc. "Subsidies to the producers, should be treated as transfer payments." This statement is correct because subsidies are the economic assistance given by the government to the farmers and household with the motive of general welfare.

OR

Circular flow of income in a two-sector economy:

In a two-sector economy, households are owners of factors of production. They provide factor services (in the form of labour, capital, land and entrepreneurship) to the firms. Firms produce goods and services and make factor payments (in the form of wages and salaries, interest, rent and profit) to the households. So, factor payments flow from firms to households.

The factor income earned by the households will be used to buy the goods and services produced by the firms, for which they make payment to the firms. So, consumption expenditure (i.e., spending on goods and services) flows from households to the firms. Thus, aggregate final consumption expenditure by the households in the economy is equal to the aggregate factor income received by the households.



16. (a) Distinguish between Consumption goods and Capital goods. [2]

OR

(b) Distinguish between net export and net factor income from abroad.

Ans. (a) Consumption of goods leads to direct satisfaction of human wants, whereas capital goods do not lead to direct satisfaction of human wants.

Expenditure on consumption goods is called consumption expenditure, whereas expenditure on capital goods is called investment expenditure.

OR

(b) Net exports refer to the difference between exports and imports during an accounting year whereas Net factor income from abroad refers to the difference between factor income to abroad.

Net exports = X-M

Net factor Income from abroad Factor Income from abroad and Factor Income to abroad.

17. State, whether the given statement is true or false:

'Unexpected obsolescence is a component of depreciation.' [1]

Ans. False

18. ₹ 2,000 note lying in wallet of Rohini, a student is an example of _____________ (stock/flow) variable. (Fill up the blank with correct alternative.) [1]

Ans. Stock

19. Define intermediate consumption. [1]

Ans. Intermediate consumption refers to value of non- factor inputs. It primarily includes the value of Ans raw material used in the process of production.

20. The sum of factor payments is equal to .... (Choose the correct alternative)

(a) Domestic Income

(b) National Income

(c) Per Capita Real Income

(d) Per Capita Nominal Income

Ans. (b) National Income.

21. Give one example of negative externalities. [1]

Ans. If you produce chemicals and cause pollution as a side effect, then local fishermen will not be able to catch fish. This loss of income will be the negative externality.

22. Distinguish between stock and flow variable with suitable examples.

` OR

What are capital goods? How are they different from consumption goods?

Ans. Difference between stock and flow variables is:

Stock	Flow
(i) Stock relates to a point of time, e.g. your saving as on January 1, 2014 are 10,000.	Flow relates to the period of time, e.g. your pocket expenses of 20 per day.
(ii) Stock is not time- dimensional.	Flow is time dimensional as per hour, per month, per year.
(iii) Stock influences the flow, greater the stock of capital, greater is the flow of goods and services.	Flow influences the stock. For example, monthly increase in the supply of money leads to an increase in the quantity of money.
(iv) Example - Population of a country, Bank deposit etc.	Expenditure of money, interest on capital etc.

OR

Difference between consumption goods and Capital goods is:

Consumption Goods	Capital Goods
(i) Goods which are consumed for their own sake to satisfy current needs of the consumers directly are consumption goods.	Capital goods are fixed assets of producers which are repeatedly used in production of other goods and services.
(ii) These are used for achieving satisfaction.	These are used for generating income by production goods.
(iii) Consumption goods meet the basic objective of an economy i.e. to sustain the consumption of entire population of the economy.	Capital goods are producer's goods which are repeatedly used in production process for generating income.

(iv) For example, Food, shoes, retailers, barbers etc.	For example, Machine, tools, technology etc.

23. State, whether the following statement is true or false:

'Purchase of machinery by a producer is an intermediate good'.

Ans. False

24. Which of the following statement is incorrect?

(a) Gross Domestic Product (GDP) at Market price = GDP at factor cost plus Net Indirect taxes.

(b) Net National product (NNP) at Market price = NNP at factor cost.

(c) Gross National Product (GNP) at Market price = GDP at Market price Plus Net factor income from abroad.

(d) Net National Product (NNP) at factor cost = National Income.

Ans. (b) Net National product (NNP) at Market price = NNP at factor cost.

25. Rent + Interest + profit = ………………………

(Fill up the blank with correct answer)

Ans. Operating surplus

26. Define the following: [4]

(a) Value Addition

(b) Gross Domestic Product

(c) Flow Variables

(d) Income property and entrepreneurship

Ans. (a) Value addition refers to the difference between the value of an output and the intermediate consumption.

(b) Gross domestic product refers to the money value of all the final goods and services produced within the domestic territory of a country during an accounting year.

(c) Flow variables are the measurable variables that are measured over a period of time. e.g., National income.

(d) Income from property and entrepreneurship is also called the operating surplus which is the sum up of rent, royalty, interest and profits.

27. Define Stocks. [1]

Ans. A stock are the variables whose magnitude is measured at a point of time, e.g. population.

28. Depreciation of fixed capital assets refers to: (choose the correct alternative) [1]

(a) Normal wear and tear

(b) Foreseen obsolescence

(c) Normal wear and tear and foreseen obsolescence

(d) Unforeseen obsolescence

Ans. (c) Normal wear and tear foreseen obsolescence.

29. Give any two examples of flow concept.

Ans. Two examples of flow concept are national income, Investment.

30. Define the problem of double counting in the computation of national income. State any two approaches to correct the problem of double counting. [3]

Or

"Gross Domestic Product (GDP) does not give us a clear indication of economic welfare of a country." Defend or refute the given statement with valid reason.

Ans. Double Counting - Double counting means counting of the value of the same product more than once in calculating the national income. Two ways of avoiding double counting:

(i) Take the value of final goods only: According to this method, the value of intermediate goods is not considered. Only the value of final goods should be added to determine the national income.

(ii) Adopt value added method: According to this method, sum total of the value added by each production unit should be taken in the computation of national income.

OR

The given statement is completely true that GDP does not give us a clear indication of economic welfare of a country. GDP is a measure of economy's production or it can be considered a component of welfare. A higher GDP means more production of goods and services in an economy during a given year. Therefore, a higher GDP also means that more goods and services were available to the people of the country during the year. But it does not indicate that the people were better off during the year. In other words, a higher GDP may not necessarily mean higher welfare of the people.

30. 'Domestic services (Household services) performed by a woman are not considered as an economic activity.' Defend or refute the given statement with valid reason. [3]

Ans. Domestic services performed by a woman are not considered as economic activity because:

(i) Because these activities are performed out of love and affection so their valuation is not possible.

(ii) These activities do not add to the flow of goods and services in the economy.

(iii) These are self-services which are done for one's own purpose not for economy.

31. Which of the following affects national income?

(choose the correct alternative) [1]

(a) Goods and Services tax

(b) Corporation tax

(c) Subsidies

(d) None of the above

Ans. (c) Subsidies

32. Given nominal income, how can we find real income? Explain.

Or

Which among the following are final good sand which are intermediate goods? Give reasons.

(a) Milk purchased by a tea stall

(b) Bus purchased by a school

(c) Juice purchased by a student from the school canteen

Ans. Real income can be calculated by applying the following formula:

Real income = $\frac{Nominal\ Income}{Price\ Index\ of\ current\ year}$ x Price Index of base year

Consider price index of base year as 100

When nominal income is given, we can convert it into real income with the help of GDP deflator.

Real Income = $\frac{Nominal\ Income}{GDP\ Deflator} \times 100$

OR

(a) It is an intermediate good because it is used by producer during production process of making tea and not for final consumption.

(b) It is a final good as, it is purchased by school for final consumption.

(c) It is a final good as, it is purchased by a student for final consumption.

33. What is meant by depreciation of domestic currency? [1]

Ans. Depreciation of domestic currency means fall in the value of domestic currency in relation to foreign currency i.e., a situation where exchange rate is determined by the market forces of supply and demand for foreign exchange in the international money market.

34. Explain with the help of an example, the basis of classifying goods into final goods and intermediate goods. [3]

Ans. The basis of classifying goods into final goods and intermediate goods is that whether the good is purchased for final use or for the use in further production.

(i) Final goods: All goods which are meant either for consumption by consumers or for investment by firms are called final goods. They are meant for final use and the final use of a product is only for consumption or investment. In other words, final goods are acquired for own use i.e. by consumers for satisfaction of their wants and by producers for capital formation. For examples, biscuits, flour, clothes are final goods when purchased by a consumer for their personal use or for satisfaction of their wants. Machine bought by a household is final good but machine bought by a firm for its use in production is not a final good.

(ii) Intermediate goods: All goods which are used as raw material for further production of other goods, or for re-sale in the same year are known as intermediate goods. For example, flour, milk, sugar, salt, fuel, etc., when purchased by a firm in order to prepare biscuits are intermediate goods. The cloth if purchased by a dress maker is also an intermediate good. Machine if purchased by a firm for resale in the same year is an intermediate good.

35. Explain the circular flow of income.

Ans. Circular flow of income refers to continuous circular flow of goods, services and income among different sectors of an economy. Flow of money is the aggregate value of goods and services either as factor payments or as expenditure on goods and services. It is circular since it has neither any beginning nor an end. It can be explained as household sector supply factor services and spend their income on consumption. The firms use these services in producing goods and other services. The households as owner of factors for production receive the payments in terms of money or reward for rendering productive services. The recipients of these incomes (i.e. households) in turn, spend their incomes on purchase of goods and services to satisfy their wants. In short, income is first generated by production units, then distributed among households for rendering productive services and ultimately comes back to production units by way of expenditure by the households. Circular flow works on two principles:

(i) In an exchange process, the seller (producer) receives the same amount which the buyer (or consumer) spends.

(ii) Goods and services flow in one direction and the money paid to acquire them, flow in the reverse direction giving rise to a circular flow.

36. Explain the precautions that are taken while estimating national income by value added method

OR

Will the following be included in the national income of India? Give reasons for your answer.

(a) Financial assistance to flood victims

(b) Profits earned by the branches of a foreign bank in India

(c) Salaries of Indians working in the American Embassy in India.

Ans. Precautions that are taken while estimating national income by value added method are:

(i) Imputed rent of owner-occupied houses be included because all houses have rental value irrespective of its use by self or tenant.

(ii) Imputed value of goods and services produced for self-consumption or for free distribution should be included.

(iii) Only value added and not value of output by production units should be included.

(iv) Value of own-account production of fixed assets by enterprises, government and the households should be included.

(v) The value of sale and purchase of second- hand goods should be excluded.

(vi) Sale of bonds by a company should also be excluded since it is merely a financial transaction which does not contribute directly to the flow of goods and services.

OR

(a) Financial assistance to flood victims: This will not be included in the national income since it is a part of transfer payment.

(b) Profits earned by the branches of a foreign bank in India: This is not to be included in the national income of India since it is earned by a foreign bank.

(c) Salaries of Indians working in the American Embassy in India: It is included in national income of India since Indian employees of American embassy are the normal residents of India.

37. Government incurs expenditure to popularize yoga among the masses. Analyse its impact on gross domestic product and welfare of the people. [4]

Ans. Impact on GDP: With the help of yoga, people will be in good state of health as well as in a good state of mind and it is rightly said that healthy mind stays in a healthy body. When a person has healthy mind and healthy body, he/she will work hard towards producing good and increased quantity of goods which will help in increasing the GDP of the economy. People with healthy mind will provide their efficient services to the economy which will have a positive impact on the GDP of the country and will help in increasing the standards of the economy.

Impact on the welfare of people: Yoga keeps the body, mind and soul healthy and happy. With healthy body, mind and soul people are able to work in an efficient manner and help the others in society, rooting up the welfare of all the people in the society.

38. Giving reason explain how the following should be treated in estimation of national income: [6]

(i) Payment of interest by a firm to a bank

(ii) Payment of interest by a bank to an individual

(iii) Payment of interest by an individual to a bank

Ans. (i) Payment of interest by a firm to bank will be included in the national income. This is because the firm would have taken loan for productive purposes.

(ii) Payment of interest by a bank to an individual will be included in the national income. This is because the bank would have used the savings of the individuals (on which the loan is paid) for productive purposes.

(iii) Payment of interest by an individual to a bank will not be included in the national income. This is because the individual is expected to have taken a loan for consumption purposes rather than for productive purposes.

39. Giving reason explain how should the following be treated in estimation of national income: [6]

(i) Expenditure by a firm on payment of fees to a chartered accountant

(ii) Payment of corporate tax by a firm (iii) Purchase of refrigerator by a firm for own use

Ans. (i) The services of chartered accountant hired by the firm should not be included in the estimation of national income. This is because it forms a part of the firm's intermediate consumption.

(ii) Payment of corporate tax is not included in the national income as it is a mere transfer payment from the firm to the government. It is a part of corporate profits which already form part of national income; therefore, it should not be separately included in national income (in addition to corporate profits).

(iii) Purchase of refrigerator by a firm for own use will be included in the national income as it is regarded as final consumption expenditure.

40. Distinguish between stocks and flows. Give an example of each.

Ans.

Stock	Flow
(i) Stock refers to the value of a variable at a point of time.	Flow refers to the value of a variable during a period of time.
(ii) It is measured at a specific point of time.	It is measured per hour, per month or per year.
(iii) Stock impacts the flow. Greater the stock of capital, greater is the flow of goods and services.	Flow impacts the stock, greater the flow of income, greater is the stock of wealth with the people.
(iv) Example: Capital and quantity of money.	Example: Export and imports.

41. Distinguish between final goods and intermediate goods. Give an example of each. [3]

Ans. Final Goods

(i) These are those goods which are either used for consumption or for investment purpose.

(ii) They are included in both national and domestic income.

(iii) For e.g., milk purchased by households.

Intermediate Goods

(i) These goods are those goods which are used either for resale or for further production in the same year.

(ii) They are neither included in national income nor in domestic income.

(iii) For milk used in dairy for resale.

42. Explain 'non-monetary exchanges' as a limitation of using gross domestic product as an index of welfare of a country. [6]

OR

How will you treat the following while estimating domestic product of a country? Give reasons for your answer:

(a) Profits earned by branches of country's bank in other countries

(b) Gifts given by an employer to his employees on Independence Day

(c) Purchase of goods by foreign tourists

Ans. Many activities in an economy are not evaluated in monetary terms, for e.g., Non-market transactions like services of house wife, kitchen gardening, etc. are not included in GDP due to non-availability of data. It is difficult to ascertain their market value as they are not rendered for the purpose of earning income. Though these services are rendered for the development of a child and welfare of the family, it is not included in the gross national product. Thus, non-monetary exchanges are a limitation of using gross domestic product as an index of welfare of a country.

OR

(a) Not included in domestic income as it is earned outside the domestic territory of the country.

(b) Not included as it is a transfer payment.

(c) Included as the expenditure is done within the domestic territory.

43. Define flows. [1]

Ans. A flow is a variable whose magnitude which is measured over a period of time. e.g. National Income.

44. National income is the sum of factor incomes accruing to: [1]

(Choose the correct alternative)

(a) Nationals

(b) Economic territory

(c) Residents

(d) Both residents and non-residents

Ans. (c) Residents.

45. Sale of petrol and diesel cars is rising A particularly in big cities. Analyse its impact on gross domestic product and welfare. [4]

Ans. Impact of rising sale of petrol and diesel cars pm gross domestic product- GDP will increase because there is increasing demand of petrol and diesel cars in the big cities and to fulfill this increasing demand, the companies have to produce more and have to increase their level of production which will lead to increase in GDP.

Impact of rising sale of petrol and cars on the welfare - The increased sale of petrol and diesel car in big cities is continuously increasing the level of pollution in big cities and is turning out to be a life threat for the people living there. This high level of pollution is making people suffer with many vulnerable diseases like asthma, heart diseases, lung problems, cancer, respiratory diseases, etc. Thus, reducing the welfare of the people.

46. Explain the precautions that should be taken while estimating national income by expenditure method. [6]

OR

Will the following be included in the domestic product of India? Give reasons for your answer.

(a) Profits earned by foreign companies in India.

(b) Salaries of Indians working in the Russian Embassy in India.

(c) Profits earned by a branch of State Bank of India in Japan.

Ans. The following precautions need to be taken for correct estimation of national income by expenditure method:

(i) To avoid double counting, expenditure on all intermediate goods and services is excluded. For example, purchase of vegetables by a restaurant, expenses on electricity by a factory.

(ii) Government expenditure on all transfer payments such as scholarship, unemployment allowance, pension, etc.

(iii) Expenditure on purchase of second-hand goods is excluded from national income because this type of expenditure is not on currently produced goods.

(iv) Expenditure on purchase of old shares/ bonds or new shares/bonds, etc., is excluded because it is not the payment done for goods and services currently produced. It shows mere transfer of property from one person to another.

(v) Imputed expenditure on own account output (e.g.-owner occupying his house, self- consumed output by a farmer) should not be included.

OR

(a) Profit earned by foreign companies in India: Yes, it is included in domestic income of India because profits are earned by the company within India's domestic territory irrespective of ownership of the company.

(b) Salaries of Indians working in Russian embassy in India: No, it is not included in domestic product of India because Russian embassy in India is not a part of domestic territory of India (but a part of domestic territory of Russia).

(c) Profits earned by a branch of State Bank of India in Japan: No, it is not included in domestic income of India because it is not earned in Indian domestic territory.

47. (a) (i) From the following data, calculate Net Value Added at Factor Cost (NVA_{FC}): [3]

S. No.	Particulars	Amount in (₹ Crores)
(i)	Price per unit of output	20
(ii)	Output sold (units)	1250 units
(iii)	Excise duty	5,000
(iv)	Consumption of fixed capital	1,000
(v)	Change in stock	(-) 500
(vi)	Single use producer goods	6,000

(ii) Why there is a need to make distinction between final and intermediate goods? [2]

Ans. (a) (i) GDP at MP = Value of Production - Intermediate Consumption

= (24,500-6,000) crores = (18,500) crores

NDP at FC = GDPMP-Consumption of fixed capital - Net Indirect taxes

= (18,500 -1,000 - 5,000) crores

= 12, 500 crores

Working Notes:

Single use producer goods = Intermediate consumption

Net Indirect Taxes = Indirect taxes - subsidy

= 5,000 – 0 = 5,000 crores

Excise duty is an indirect tax.

Value of Production = (price x quantity) + change in stock

= (20x1250) +(-500) = (25,000-500) crores = (24,500) crores

(ii) There is a need to make a distinction between final and intermediate goods because of following:

1. Final goods are those goods which are meant for final use by consumers or producers. And National income includes the value of final goods only.

2. Intermediate goods are those goods which are used as raw material or for resale purpose. And National Income does not include the value of intermediate goods.
3. If value of intermediate goods is included in national income, it will cause double counting.

48. (a) (I) From the following data, calculate the value of operating surplus: [3]

S.No.	Items	Amount in (Rs crore)
(i)	Royalty	5
(ii)	Rent	75
(iii)	Interest	30
(iv)	Net domestic product at factor cost	400
(v)	Profit	45
(vi)	Dividends	20

(II) Distinguish between 'Fixed Investment' and 'Inventory Investment'.

OR

(b) (1) From the following data, calculate the value of compensation of employees (COE):

S.No.	Items	Amount in (Rs crore)
(i)	Old age pension	2,000
(ii)	Wages and salaries in cash	60,000
(iii)	Rent free accommodation to employees	30,000
(iv)	Employer's contribution to provident fund	7,500
(v)	Payment of life insurance premium by the employees	2,500
(vi)	Contribution to provident fund by employees	35,000

(II) Distinguish between stock and flow variables.

Ans. (a) (I) OS = Rent + Royalty + Interest + Profit

= 75 + 5 + 30 + 45 = 155 crores

(II) Fixed investment refers to expenditure by the producers on the purchase of fixed assets whereas inventory investment refers to change in stock during the year. It is the difference between closing stock and opening stock of the year.

OR

(b) (I) COE = Wages and salaries in cash + Rent free accommodation to employees + Employees contribution to provident fund

= (60,000 + 30,000 + 7,500) crore

= 97,500 crores

(II)	Stock	Flow

	(i) It refers to the value of a variable at a point of time.	It refers to the value of a variable during a period of time.
	(ii) It is not time dimensional	It is time dimensional.

49. (a) (1) From the following data, calculate the value of operating surplus: [3]

S.No.	Items	Amount in (Rs crore)
(i)	Royalty	10
(ii)	Rent	70
(iii)	Interest	25
(iv)	Net domestic product at factor cost	500
(v)	Profit	50
(vi)	Dividends	20

OR

(b) (1) From the following data, calculate the value of compensation of employees (COE):

S.No.	Items	Amount in (Rs crore)
(i)	Old age pension	1,250
(ii)	Wages and salaries in cash	49,500
(iii)	Rent free accommodation to employees	13,500
(iv)	Employer's contribution to provident fund	8,900
(v)	Payment of life insurance premium by the employees	3,000
(vi)	Contribution to provident fund by employees	35,600

(II) Distinguish between Real Gross Domestic Product (GDP) and Nominal Gross Domestic Product (GDP)

Ans. (a) (I) OS = Rent + Royalty + Interest + Profit

= 75 + 10 + 25 + 50 = 155 crores

OR

(b) (I) COE= Wages & salaries in cash + Employer's contribution to provident fund

= 49,500 + 8,900 = 58,400 crores

(II) Real GDP is the market value of goods and services produced within the domestic territory of country during an accounting year, as estimated using the base year prices whereas Nominal GDP uses the current year's prices.

Real GDP = $\frac{\text{Nominal GDP}}{\text{Price Index}} \times 100$

50. (a) (I) From the following, calculate the value of net domestic product at factor cost: [3]

S.No.	Items	Amount in (Rs crore)
(i)	Royalty	5
(ii)	Rent	75

(iii)	Interest	30
(iv)	Compensation of Employees	600
(v)	Profit	45
(vi)	Dividends	20
(vii)	Mixed Income of self employed	100

(II) Distinguish between final goods and intermediate goods. [2]

Ans. (a) (I) NDPFC = COE + OS + MI

= 600 + 155 + 100

= 855 crores

Working Notes:

OS = Rent + Royalty + Interest + Profit = 75 + 5 + 30 + 45 = 155 crores

(II) Final goods are those goods which have crossed the boundary line of production and are ready for use by their final users. On the other hand, Intermediate goods are those goods which are purchased by one firm from the other for resale or for use as raw material in the production of other goods.

51. Calculate Net Value Added at Factor Cost (NVAFC) from the following data: [3]

S.No.	Particulars	Amount in (Rs crore)
(i)	Value of Output	800
(ii)	Intermediate Consumption	200
(iii)	Indirect taxes	30
(iv)	Depreciation	20
(v)	Subsidies	50
(vi)	Purchase of machinery	50

OR

State the three components of Income from Property and Entrepreneurship.

Ans. Value of output = 800

Intermediate Consumption = 200

GVAMP = Value of output – Intermediate Consumption

= 800 – 200 = 600

NVAFC = GVAMP - Depreciation - NIT (Indirect tax - Subsidies)

NVAFC = 600 – 20 - (30 - 50)

= 580 + 20 = 600

OR

Three components of income from property and entrepreneurship are:

(i) Rent: It is the return received for providing land and building.

(ii) Profit: It is the return received for providing capital as loan.

(iii) Interest: It is the return received for providing capital as ownership.

52. Net Domestic Fixed Capital Formation + Change in Stock …………………. [1]

OR

When Nominal Gross Domestic Product (GDP) is ₹ 840 crores and price index is ₹ 120, then the Real Gross Domestic Product (GDP) will be …………….

(Fill up the blank with correct alternative).

(a) 700 crores

(b) 900 crores

(c) 800 crores

(d) 500 crores

Ans. Net Domestic Capital formation.

OR

Nominal Gross Domestic Product = 840 crores

Price index = 120

Real Gross Domestic product =?

Price index = $\frac{\text{Nominal Gross Domestic Product}}{\text{Real Gross Domestic Product}}$ x 100

120 = $\frac{840}{\text{Real Gross Domestic Product}}$ x 100

Real Gross Domestic Product = $\frac{840}{120}$ x 100

Real Gross Domestic Product = 700 crores

(a) 700 crores

53. Calculate Gross Value Added at Market Price: [3]

S.No.	Particulars	Amount in (Rs lakh)
(i)	Depreciation	20
(ii)	Domestic Sales	200
(iii)	Change in Stocks	(-) 10
(iv)	Exports	10
(v)	Single use producer goods	120

Ans. Gross value added at market price (GDPmp) = Domestic sales + Export + Δ in Stock - Single use producer goods

= 200 + 10- 10 - 120 = 210 – 130

= ₹ 80 lakh

54. If the Real Gross Domestic Product (GDP) in an economy is 520 crores and Nominal Gross Domestic Product (GDP) is 650 crores, calculate the price Index.

Ans. Price Index = $\frac{\text{Nominal GDP}}{\text{Real GDP}}$ x 100

Price Index = $\frac{650}{520}$ x 100 = 125

55. Calculate Net Value Added at factor cost from the following data:

S.No.	Particulars	Amount in (Rs lakh)
(i)	Durable producer goods (with a life span of 10 years)	10
(ii)	Single use producer goods	5
(iii)	Sales	20
(iv)	Unsold Goods (Stock)	2
(v)	Goods and Services Tax (GST)	1

Ans. GDPMP = Sales + Unsold Goods (Stock) - Single

Use Producer Goods.

GDPMP =20 + 2 - 5

GDPMP = 17 lakh

Depreciation = $\frac{\text{Value of durable producer goods}}{\text{Life span of producer goods}} = \frac{10}{10}$ = 1

Net value added at factor cost/Net Domestic Product at Factor Cost

= GDPmp = Depreciation - NIT

= GDPmp - Depreciation - IT +Subsidy

= 17 – 1 – 1 + 0

NDPFC = 15 lakh

56. When Nominal Gross Domestic Product (GDP) is ₹ 850 crores and Price Index is ₹ 170, Real Gross Domestic Product (GDP) will be …………………… (Fill up the blank with correct answer)

Ans. 500 crores

57. Calculate Net Domestic Product at factor cost.

S.No.	Particulars	Amount in (Rs crores)

(i)	Interest	700
(ii)	Compensation of Employees	3,000
(iii)	Net Indirect Taxes	500
(iv)	Rent and Profit	700
(v)	Transfer Payments by Government	10

Ans. Compensation of Employees 3,000

(+) Operating Surplus 1,400

(+) Mixed Income --

NDPFC 4400 Crore

58. Given the Following data, find the value of "Gross Domestic Capital Formation" and "Operating Surplus".

S.No.	Particulars	Amount (Rs in Crores)
(i)	National Income	22,100
(ii)	Wages and Salaries	12,000
(iii)	Private Final Consumption Expenditure	7,200
(iv)	Net Indirect Taxes	700
(v)	Gross Domestic Capital Formation	?
(vi)	Depreciation	500
(vii)	Government Final Consumption Expenditure	6,100
(viii)	Mixed Income of Self- Employed	4,800
(ix)	Operating Surplus	?
(x)	Net Exports	3,400
(xi)	Rent	1,200
(xii)	Net Factor Income from Abroad	(-) 150

Ans. Gross Domestic capital formation = (i) — {(iii) + vii + x} + vi - xii + iv

GDCF = 22,100 - (7,200 + 6,100 + 3,400) + 500 (-150) + 700

GDCF = 6750 crores

operating surplus = National income - wages and salaries - mixed income of self-employed - net factor income from Abroad = 22,100 - 12,000 - 4,800 - (-150) = 5,450 crores

59. Given the Following data, find the value of "Government Final Consumption Expenditure" and " Mixed Income of Self- Employed ".

S.No.	Particulars	Amount (Rs in Crores)
(i)	National Income	71,000
(ii)	Gross Domestic Capital Formation	10,000
(iii)	Government Final Consumption Expenditure	?
(iv)	Mixed Income of Self- Employed	?
(v)	Net Factor Income from Abroad	1,000
(vi)	Net Indirect Taxes	2,000

(vii)	Profits	1,200
(viii)	Wages and Salaries	15,000
(ix)	Net Exports	5,000
(x)	Private Final Consumption Expenditure	40,00
(xi)	Consumption of fixed capital	1,200
(xii)	Operating Surplus	(-) 150

Ans. Mixed Income of Self- Employed = (i) — [(viii) + xii + v]

= 71,000 - (15,000 + 30,000 + 1,000) = 25,000 crores

Government Final Consumption Expenditure = (i) + [(x) + (ii) + (v) + (ix)] + (vi) + (xi)

= 71,000 - (40,000 + 10,000 + 1,000 + 5,000) + 2,000 + 3,000

= 20,000 crores

60. Given the Following data, find the value of " Private Final Consumption Expenditure" and "Operating Surplus".

S.No.	Particulars	Amount (Rs in Crores)
(i)	National Income	50,000
(ii)	Net Indirect Taxes	1,000
(iii)	Private Final Consumption Expenditure	?
(iv)	Gross Domestic Capital Formation	17,000
(v)	Profits	1,000
(vi)	Government Final Consumption Expenditure	12,500
(vii)	Wages and Salaries	20,000
(viii)	Consumption of Fixed Capital	700
(ix)	Mixed Income of Self- Employed	13,000
(x)	Operating Surplus	?
(xi)	Net Factor Income from Abroad	500
(xii)	Net Exports	2,000

operating surplus = (i) – [(vii) + (ix) + (xi)]

= 50,000 – (20,000 + 13,000 + 500)

= 16,500 crores.

Private Final Consumption Expenditure = (i) – [(iv) + (vi) + (xi) + (xii)] + (viii) + (ii)

= 50,000 – (17,000 + 12,500 + 2,000 + 500) + 700 + 1,000

= 19,700 crores

61. Given the Following data, find the value of " Gross Domestic Capital Formation" and " Wages and Salaries ".

S.No.	Particulars	Amount (Rs in Crores)
(i)	Mixed Income of Self- Employed	3,500
(ii)	Net Indirect Taxes	300
(iii)	Wages and Salaries	?
(iv)	Government Final Consumption Expenditure	14,000
(v)	Net Exports	3,000
(vi)	Consumption of Fixed Capital	300
(vii)	Net Factor Income from Abroad	700
(viii)	Operating Surplus	12,000
(ix)	National Income	30,000
(x)	Profits	500
(xi)	Gross Domestic Capital Formation	?
(xii)	Private Final Consumption Expenditure	11,000

Wages and Salaries = (ix) – [(i) + (viii) + (vii)]

= 30,000 – (3,500 + 12,000 + 700) = 13,800 crores

Gross Domestic Capital Formation = (ix) – [(iv) + (v) + (vii) +(xii)] + (ii) + (vi)

= 30,000 – (14,000 + 3,000 + 700 + 11,000) + 300 + 300 = 1900 crores

62. Calculate (a) Operating Surplus, and (b) Domestic Income: [6]

	(Rs in crores)
(i) Compensation of employees	2,000
(ii) Rent and interest	800
(iii) Indirect taxes	120
(iv) Corporation tax	460
(v) Consumption of fixed capital	100
(vi) Subsidies	20
(vii) Dividend	940
(viii) Undistributed profits	300
(ix) Net factor income to abroad	150

(x) Mixed income 200

Ans. (a) Operating Surplus:

OS = Corporation tax + Rent and Interest + Dividend + Undistributed profits.

OS = (iv) + (ii) + (vii) + (viii)

= 460 + 800 + 940 + 300 = 2,500 crores

(b) Domestic Income:

NDPFC = Compensation of employees + Operating surplus + Mixed income

= 2000 + 2500 + 200 = 4,700 crores

Ans. OS = 2,500 crores

DI = 4,700 crores

63. Calculate (a) Net National Product at market price, and (b) Gross Domestic Product at factor cost: [4+2=6]

	(Rs in crores)
(i) Rent and interest	6,000
(ii) Wages and salaries	1,800
(iii) Undistributed profit	400
(iv) Net indirect taxes	100
(v) Subsidies	20
(vi) Corporation tax	120
(vii) Net factor income to abroad	-70
(viii) Dividends	80
(ix) Consumption of fixed capital	50
(x) Social security contribution by employers	200

(xi) Mixed income	1,000

Ans. NDPFC = Wages and salaries + SSC by employers + Rent and interest + Dividend + Corporation tax + Undistributed profit + Mixed income

NDPFC = 1800+200+ 6000+80+ 120 + 400+1000

NDPFC = 9600 Crores

(a) NNPMP = NDPFC+NFIA+NIT

NNPMP=9600+ (-70) +100 = 9630 Crores

(b) GDPFC = NDPFC + Consumption of fixed capital

GDPFC = 9600 + 50 GDPFC

= 9650 Crores

64. Calculate (a) National Income, and (b) Net National Disposable Income: [6]

	(Rs) in crores
(i) Compensation of employees	2,000
(ii) Rent	400
(iii) Profit	900
(iv) Dividend	100
(v) Interest	500
(vi) Mixed income of self-employed	7,000
(vii) Net factor income to abroad	50
(viii) Net exports	60
(ix) Net indirect taxes	300
(x) Depreciation	150
(xi) Net current transfers to abroad	30

Ans. (a)

NY=NDPfc + NFIA (Net factor income from abroad)

NDPfc = COE+ Mixed income + operating surplus

= COE + MI + (Rent + Royalty + Interest + Profit)

= 2000 + 7000 + 400 + 500 + 900

= 10,800 crores

NNPfc or NY =NDP fc -Net factor income to abroad

= 10,800 – 50 = 10,750 crore.

65. Calculate the (a) Net National Product at market price, and (b) Gross National Disposable Income:

	(Rs in crores)
(i) Mixed income of self-employed	8,000
(ii) Depreciation	200
(iii) Profit	1,000
(iv) Rent	600
(v) Interest	700
(vi) Compensation of employees	3,000
(vii) Net indirect taxes	500
(viii) Net factor income to abroad	60
(ix) Net exports	(-) 50
(x) Net current transfers to abroad	20

(a) NNPmp = Net national product at market price

NDPfc = COE+ MI + OS (Rent + interest + profit)

= (vi) + (i) + (iv) + (v) + (iii)

= 3,000 + 8,000 + 600 + 700 + 1,000 = 13,300 crores

NNPmp = NDPfc - (viii) + (vii)

= 13,300 – 60 + 500 =13,740 crores

66. Calculate the (a) Gross National Product at market price, and (b) Net National Disposable Income:

	(Rs in crores)
(i) Compensation of employees	2,500
(ii) Profit	700
(iii) Mixed income of self-employed	7,500
(iv) Government final consumption expenditure	3,000
(v) Rent	400
(vi) Interest	350
(vii) Net factor income from abroad	50
(viii) Net current transfers to abroad	100
(ix) Net indirect taxes	150
(x) Depreciation	70
(xi) Net exports	40

Ans. (a) GNPmp =?

NDPfc = COE+MI+OS (Rent + Profit + interest)

(i) + (iii) + (v) + (ii) + (vi) =2500+7500+400+ 700 +350 = 11,450 crores

NNPmp = NDPFC+NFIA + Net indirect tax.

= NDPFC + (vii) + (ix) = 11,450 + 50 + 150 = 11,650 crores

GNPmp = NNPmp + Depreciation

= NNPmp + (x)

= 11,650 + 70

= 11,720 crores.

67. Calculate (a) net domestic product at factor cost and (b) gross national disposable income: [6]

S.No.	Particular	Amount (Rs)
(i)	Private final Consumption Expenditure	8000
(ii)	Government final Consumption Expenditure	1000
(iii)	Exports	70
(iv)	Imports	120
(v)	Consumption of fixed capital	60
(vi)	Gross domestic fixed capital formation	500
(vii)	Change in stock	100
(viii)	Factor income to abroad	40
(ix)	Factor income from abroad	90
(x)	Indirect taxes	700
(xi)	Subsidies	50
(xii)	Net current transfer to abroad	(-) 30

Ans. (a) NDPfc = (i) + (ii) + (vi + vii) + (iii - iv) - (v) - (x) + (xi)

= 8000 + 1000+ (500+ 100) + (70-120)-60 -700+50

= 9000+600+ (-50)-60-650

= 9600-50-710

= 9600-760

= 8840 Crores

68. Calculate (a) national income (b) net national disposable income:

S.No.	Particular	Amount (Rs)
(i)	Net abroad factor income to abroad	(-) 50
(ii)	Net indirect taxes	800
(iii)	Net current transfers from rest of the world	100
(iv)	Net imports	200
(v)	Private final consumption expenditure	5000
(vi)	Government final consumption expenditure	3000
(vii)	Gross domestic capital formation	1000
(viii)	Consumption of fixed capital	150
(ix)	Change in stock	(-)50
(x)	Mixed income	4000
(xi)	Scholarship to students	80

Ans. (a) National Income = (v) +(vi) + (vii) - (iv) - (viii)-(ii)-(i)

= 5000+3000+1000-200-150-800-(-50)

= 9000-200-950+50

= 9000-200-900 =9000-1100 =7900 Crores.

69. Calculate (a) net national product at market price and (b) gross national disposable income:

S.No.	Particular	Amount (Rs)
(i)	Gross domestic fixed capital formation	400
(ii)	Private final consumption expenditure	8000
(iii)	Government final consumption expenditure	300
(iv)	Change in stock	50
(v)	Consumption of fixed capital	40
(vi)	Net indirect taxes	100
(vii)	Net exports	(-) 60
(viii)	Net factor income to abroad	(-) 80
(ix)	Net current transfers from abroad	100
(x)	Dividend	100

NNPMP = Private final consumption expenditure + Government final consumption expenditure + Gross domestic fixed capital formation + change in stock + Net exports - Consumption of fixed capital-Net factor income to abroad.

= 8,000+3,000+400+50-60-40 (-80)

=11,430 crore

70. Assuming real income to be 200 crore and price index to be 135, calculate nominal income. [3]

Ans.

Real income = 200 crores; Price index = 135

Let the base year's price index be 100

Nominal Income=?

Real income = (Nominal income/Price index of current year)

X Price index of base year.

200 = (Nominal income/135) × 100

Nominal Income (200 x 135)/100

= 27000/100

= 270 crores.

71. Find Gross National Product at Market Price and (Private Income):

	(Rs Crores)
(i) Private final consumption expenditure	800
(ii) Net current transfers to abroad	20
(iii) Net factor income to abroad	(-)10
(iv) Government final consumption expenditure	300
(v) Net indirect tax	150
(vi) Net domestic capital formation	200
(vii) Current transfers from government	40
(viii) Depreciation	100
(ix) Net imports	30
(x) Income accruing to government	90
(xi) National debt interest	50

Ans. GDPmp = Private Final Consumption Expenditure + Government Final Consumption Expenditure + (net domestic capital formation+ depreciation) -net imports

GDPmp = 800+300+(200+100)-30

= 1100+(300)-30 = 1400-30= 1370 crores.

GNPmp = GDPmp-net factor income to abroad =1370-(-10) = 1380 crores

72. If nominal income is 500 and price index is 125, calculate real income.

Ans. Real Income = (Nominal income/ Price index of current year) × Price Index of base year.

Let the base year 's price index be 100.

Real Income = (500/125) × 100

= 4 × 100 = 400

73. Calculate Net National Product at Market Price and (Private income:

	(Rs crores)
(i) Net current transfers to abroad	10
(ii) Private final consumption expenditure	500
(iii) Current transfers from government	30
(iv) Net exports	(-) 20
(v) Net indirect tax	120
(vi) National debt interest	70
(vii) Net domestic capital formation	80
(viii) Income accruing to government	60
(ix) Income accruing to government	60
(x) Government final consumption expenditure	100

Ans. GDPMP Private Final Consumption Expenditure + Government Final Consumption Expenditure + (Net Domestic Capital Formation+ Depreciation) + Net Exports

= 500 + 100 + (80 + 0) + (-20)

= 600 + 80 – 20

= 680 – 20

= 660 crores.

NNPMP = GDPMP – Depreciation - Net Factor Income to abroad

= 660 – 0 - 20 = 660 - 20 = 640 crores.

74. If real income is 400 and price index is 105, calculate nominal income.

Ans. Real Income = (Nominal income/Price index of current year) X price index of base year.

Let base year 's price index be 100

400 = (nominal income/105) × 100

Nominal Income = (400 × 105)/100 = 420

75. Calculate National Income and (Personal Disposable Income**):

	(Rs Crores)
(i) Corporation tax	100
(ii) Private final consumption expenditure	900
(iii) Personal Income tax	120
(iv) Government final consumption expenditure	200
(v) Undistributed profits	50
(vi) Change in stocks	(-) 20
(vii) Net domestic fixed capital formation	120
(viii) Net imports	10
(ix) Net indirect tax	150
(x) Net factor income from abroad	(-) 10
(xi) Private income	1000

Ans. GDPmp Private final consumption expenditure + Government final consumption expenditure + (net domestic fixed capital formation + depreciation + change in stock)-net imports

= 900 + 200 + (120 + 0 + (-) 20 -10)

= 1100 + (120 - 20) – 10

= 1190.

NNPFC = GDPMP+ Net factor income from = abroad - net indirect tax – depreciation

= 1190 + (-10) – 150 - 0

= 1190 + (-160) = 1030

National income = 1030 crores.

76. Find net value added at factor cost: [3]

	(Rs Lakh)
(i) Durable use producer goods with a life span of 10 years	10
(ii) Single use producer goods	5
(iii) Sales	20
(iv) Unsold output produced during the year	2
(v) Taxes on production	1

Ans. Value of output = sales + change in stock

= 20 + 2 = 22 lakh.

Gross value added at market price = value of output-intermediate consumption (single use producer goods)

= 22 – 5 = 17 lakh.

Depreciation (Cost of producers good/ no. of life in years)

= (10/10) = 1

Net Indirect taxes = Taxes on production – subsidy

= 1 – 0 = 1

Net value added at FC = GVAmp - Depreciation -Net indirect taxes

= 17 – 1 – 1 = 15 lakhs.

77. Find national income and (private income**): [6]

	(Rs Crores)
(i) Wages and salaries	1000
(ii) Net current transfers to abroad	20

(iii) Net factor income paid to abroad	10
(iv) Profit	400
(v) National debt interest	120
(vi) Social security contributions by employers	100
(vii) Current transfers from government	60
(viii) National income accruing to government	150
(ix) Rent	200
(x) Interest	300
(xi) Royalty	50

Ans. NNPfc = Wages and salaries + Social security contributions by employers + Rent + interest + profit + royalty - Net factor income paid to abroad.

NNPfc = 1000 + 100 + 200 + 300 + 400 + 50 – 10

= 2050 – 10 = 2040 crores.

78. Find net domestic product at factor cost and personal income:

	(Rs crores)
(i) Rent	200
(ii) Net current transfers to abroad	10
(iii) National debt interest	60
(iv) Corporate tax	100
(v) Compensation of employees	900
(vi) Current transfers by government	150
(vii) Interest	400
(viii) Undistributed profits	50
(ix) Dividend	250

(x) Net factor income to abroad	(-) 10
(xi) Income accruing to government	120

Ans. NDPfc = rent + corporate tax + compensation of employees + interest + undistributed profits + dividend.

= 200 + 100 + 900 + 400+ 50 + 250

= 1900 crore.

79. Find gross value added at market price:

	(Rs lacs)
(i) Depreciation	20
(ii) Domestic sales	200
(iii) Net change in stocks	(-) 10
(iv) Exports	10
(v) Single use producer goods	120

Ans. Value of output = Sales - Net Change in stock = (Domestic Sales + Exports) + Net change in Stock

= (200 + 10) + (-10) = 200 lakh

Gross value added at market price = Value of output - Intermediate Consumption

=200 - 120 = 80 lakh.

80. Find net national product at market price and (personal disposable income :)**

	(Rs crores)
(i) Personal taxes	200
(ii) Wage and salaries	1,200
(iii) Undistributed profit	50
(iv) Rent	300

(v) Corporation tax	200
(vi) Private income	2,000
(vii) Interest	400
(viii) Net indirect tax	300
(ix) Net factor income to abroad	20
(x) Profit	500
(xi) Social security contributions by employers	250

Ans. NDPfc = Wages and salaries + Social security contribution by employers + Rent + Interest + Profit

= 1,200 + 250 + 300 + 400 + 500 = 2,650 crores.

NNPmp = NDP fc - Net factor income to abroad + Net indirect tax

= 2,650-20+300

=2,930 crores.

81. If the Real GDP is 400 and Nominal GDP is 450, calculate the Price Index (base = 100). [3]

Ans. We know,

Real GDP = $\frac{\text{Nominal GDP}}{\text{Price Index}}$ x 100

400 = 450/Price Index x 100

Price Index = 450/450 = 100 = 112.50

82. Calculate the 'National Income' and 'Private Income''**: [6]

	(Rs crores)
(i) Rent	200
(ii) Net factor income to abroad	10
(iii) National debt interest	15
(iv) Wages and salaries	700

(v) Current transfers from government	10
(vi) Undistributed profits	20
(vii) Corporation tax	30
(viii) Interest	150
(ix) Social security contributions by employers	400
(x) Net domestic product accruing to government	250
(xi) Net current transfers to rest of the world	5
(xii) Dividends	50

Ans. National Income = Wages and salaries + Social security contributions by employers + Rent + Interest + Dividends + Corporation tax + Undistributed profits Net factor income to abroad

NNPFC=700+100+200+ 150+ 50+30 +20-10 =1240 crore

83. If the Real GDP is 500 and Price Index (base= 100) is 125, calculate the Nominal GDP.

Ans. Real GDP = $\frac{\text{Nominal GDP}}{\text{Price Index}}$ x 100

500 = Nominal GDP/125 x 100

Nominal GDP = 625

84. Calculate 'Net National Product at Market Price' and 'Personal Income"**:

	(Rs crores)
(i) Transfer payments by government	7
(ii) Government final consumption expenditure	50
(iii) Net imports	(-) 10
(iv) Net domestic fixed capital formation	60
(v) Private final consumption expenditure	300
(vi) Private income	280
(vii) Net factor income to abroad	(-) 5

(viii) Closing stock	8
(ix) Opening stock	8
(x) Depreciation	12
(xi) Corporate tax	60
(xii) Retained earnings of corporations	20

Ans. NNPMP Private final consumption expenditure = + Government final consumption expenditure + (Net domestic fixed capital formation + depreciation) + Change in stock - Net imports - depreciation - Net factor income to abroad NNPMP

=300+ 50+60 +12+ (8-8) -(-10) - 12-(-5)

NNPmp = 425 crores

85. Calculate 'Net Domestic Product at Market Price' and 'Gross National Disposable Income''**:

	(Rs crores)
(i) Private final consumption expenditure	400
(ii) Opening stock	10
(iii) Consumption of fixed capital	25
(iv) Imports	15
(v) Government final consumption expenditure	90
(vi) Net current transfers to rest of the word	5
(vii) Gross domestic fixed capital formation	80
(viii) Closing stock	20
(ix) Exports	10
(x) Net factor income to abroad	(-) 5

Ans. Net Domestic Product at Market Price = Private final consumption expenditure + Government final consumption expenditure + Gross domestic fixed capital formation + change in stock + Net exports – depreciation

Net Domestic Product at Market Price = 400 +90+80+(20-10) +(10-15)-25

Net Domestic Product at Market Price = Rs 550

86. If Real GDP is 200 and Price Index (with base = 100) is 110, calculate Nominal GDP. [3]

Ans. We know,

Real GDP = $\frac{\text{Nominal GDP}}{\text{Price Index}}$ x 100

200 = Nominal GDP/110 x 100

Nominal GDP = 220

87. Calculate National Income and (Personal Disposable Income**). [6]

S.No.	Particular	Amount (Rs)
(i)	Personal Tax	80
(ii)	Private final Consumption Expenditure	600
(iii)	Undistributed profits	30
(iv)	Private Income	650
(v)	Government final Consumption Expenditure	100
(vi)	Corporate tax	50
(vii)	Net domestic fixed capital formation	70
(viii)	Net indirect tax	60
(ix)	Depreciation	14
(x)	Change in stocks	(-) 10
(xi)	Net imports	20
(xii)	Net factor income to abroad	10

Ans. National Income = Private final consumption expenditure + Government final consumption expenditure + (Net domestic fixed capital formation + Depreciation + Change in stock) -Net imports - Depreciation - Net indirect taxes - Net factor income to abroad National income:

= 600+100+ (70+14-10) - 20-14-60-10=670 or, National income = 670 crore

88. If the Nominal GDP is 1,200 and Price Index (with base = 100) is 120, calculate Real GDP.

Ans. Real GDP = $\frac{\text{Nominal GDP}}{\text{Price Index}}$ x100

substituting the given values in the question

Real GDP = 1200/120 x 100

Real GDP = 1000

89. Calculate 'Gross National Product at Market Price' and 'Net National Disposable Income:

	(Rs crores)
(i) Rent	100
(ii) Net current transfers to rest of the world	30
(iii) Social security contributions by employers	47
(iv) Mixed income	600
(v) Gross domestic capital formation	140
(vi) Royalty	20
(vii) Interest	110
(viii) Compensation of employees	500
(ix) Net domestic capital formation	120
(x) Net factor income from abroad	(-)10
(xi) Net indirect tax	150
(xii) Profit	200

Ans. GNPMP = Compensation of employees + Rent + Interest + Royalty + Profit + Mixed income + NFIA + Net indirect taxes + Gross domestic capital formation-Net domestic capital formation

GNPMP = 500 + 100 + 110 + 20 + 200 + 600 – 10 + 150 + 140 – 120

GNPMP = 1690 crore

90. Calculate "Sales" from the following data: [4]

	(₹ in lakhs)
(i) Net value added at factor cost	560
(ii) Depreciation	60
(iii) Change in stock	(-) 30

(iv) Intermediate cost	1000
(v) Exports	200
(vi) Indirect taxes	60

Ans. Sales = Net value added at factor cost + Depreciation + Intermediate cost + Indirect taxes - Changes in stock

= (i) + (ii) + (iv) + (vi) - (iii)

= 560 + 60 + 1000 + 60 - (-30) = ₹ 1710 lakhs