## INDIRECT TAXES

Government has to perform many functions in the discharge of its duties like infrastructure development, health, education, defence of the country, removal of poverty, maintenance of law and order, etc. To meet these requirements huge amount of capital is required. The question arises, from where does government get money for fulfilling all these activities and for the development of the nation? The government collects money from public through a wide variety of sources i.e. fees, fines, surcharges and taxes which are defined later in this lesson. The most important of these is taxation. In this lesson we will discuss various types of indirect taxes in details.

## OBJECTIVES

After studying this lesson, you will be able to:

- acquaint yourself with the sources of revenues of the government;
- define direct taxes and indirect taxes;
- distinguish between direct taxes and indirect taxes;
- state merits and demerits of direct taxes and indirect taxes;
- enumerate sources of direct taxes and indirect taxes;
- define various types of indirect taxes like, excise duty, customs duty(import and export),production linked tax, and Value Added Tax (VAT); and
- distinguish between sales tax and value added tax.


## EXPECTED BACKGROUND KNOWLEDGE

- Concept of percentage and its applications


### 40.1 SOURCES OF REVENUE

As we know that government has to perform its various functions for the welfare of the society,

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Notes conment Board, etc can also levy certain taxes like property tax, professional tax, octroi, education cess, etc.
Thus, taxes are contributions made by the citizens of the country towards its development and expenditure, which the government has to incur in its social and economic activities. Taxes are paid by the individuals, corporate houses of trade and industry etc. There are different types of taxes like income tax, wealth tax, gift tax, property tax, sales tax, excise and custom duty etc.

### 40.1.1 Tax

A tax is legally compulsory payment levied by the government on the persons or companies to meet the expenditure incurred on conferring common benefits upon the people of a country. In other words a tax can also be describe as a compulsory levy where those who are taxed have to pay the sums irrespective of any corresponding return of services or goods by the government.

### 40.1.2 Fee

Fee is also compulsory payment made by a person who receives in return a particular benefit or services from the government.

### 40.1.3 Fines

These are compulsory payments without any quid pro que but are different from taxes because fines are imposed to curb certain offences and discipline people and not to get revenue for the State. In this sense, fines are not taxes.

### 40.1.4 Surcharges

It is an additional charge or an extra fee for a special service. It is also called tax on tax e.g. a $10 \%$ surcharge is applicable on income tax for incomes above Rs. 10 lakh. In other words surcharges are often a charge in addition to a charge, or a tax added to the original tax.

Two aspects of tax follow from the definition:

1. A tax is a compulsory payment and no one can refuse to pay it.
2. Proceeds from taxes are used for common benefits or general purposes of the state. It means there is no direct quid pro que involvement in the payment of a tax.
Taxes are mainly classified into direct and indirect taxes:

### 40.2 DIRECT TAXES

Those taxes whose burden cannot be shifted to others and the person who pays these to the government has to bear it are called direct taxes. In other words direct tax is imposed on an individual or a group of individuals, which affects them directly i.e, which they have to pay to the government directly. The direct tax can be of different types:

## Indirect Taxes

### 40.2.1 Income Tax

The tax imposed on an individual or a group of individuals on their annual incomes is known as income tax. Every individual whose annual income exceeds a certain specified limit is required, under the Income Tax Act, to pay a part of his income in the form of income tax. Its rates are announced in the beginning of each financial year by the central government.

Financial Year: The period from 1st April to 31st march is taken as a financial year i.e. every financial year begins on 1st April and ends on 31st march of the consecutive year.

Assessment Year: The year next to a particular financial year is called the assessment year for that financial year, e.g. for financial year 2005-06, the assessment year is 2006-07.

Permanent Account Number: An individual is given a permanent account number (PAN) by the income tax department. He or she is obliged to file an income tax return of the financial year by a specified date of the subsequent financial year.

### 40.2.2 Wealth Tax

The tax imposed on the wealth (property as well as money) of an individual is called wealth tax. The exemption limit for wealth tax is Rs $5,00,000$. In addition one residential house or a part thereof is exempted from the wealth tax.

### 40.2.3 Gift Tax

If an individual transfers any of his movable or immovable property voluntarily to any other individual it is called a gift. If the value of a gift exceeds a specified limit then the person giving the gift has to pay gift tax to the government where as the person receiving the gift need not pay any tax.

A controversial issue in public finance is concerned with whether in the tax structure of an economy, direct or indirect tax should be preferred. Indeed both direct taxes and indirect taxes have their merits and demerits and therefore a good tax system should contain a proper mix of these two types of taxes.

Direct taxes, it may be recalled are those which are levied directly on the individuals and firms and their burden is borne by those on whom these are levied.

### 40.2.4 Merits of Direct Taxes

1. The larger burden of the direct taxes falls on the rich people who have capacity to bear these and the poor people with less ability to pay have to bear less burden.
2. Direct taxes are important instrument of reducing inequalities of income and wealth.
3. Unlike indirect taxes, direct taxes do not cause distortion in the allocation of resources. As a result these leave the consumers better off as compared to indirect taxes.
4. Revenue elasticity of direct taxes, especially if they are of progressive type is quite high. As the national income increases, the revenue on these taxes also rises a great deal.

### 40.2.5 Demerits of Direct Taxes

1. In the direct taxation, people are aware of their tax liability and therefore they would try to avoid or even evade the taxes. The practice and possibility of tax evasion and avoidance

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### 40.3 INDIRECT TAXES

Indirect taxes are those whose burden can be shifted to others so that those who pay these taxes to the government do not bear the whole burden but pass it on wholly or partly to others. Indirect taxes are levied on production and sale of commodities and services and small or a large part of the burden of indirect taxes are passed on to the consumers. Excise duties on the product of commodities, sales tax, service tax, customs duty, tax on rail or bus fare are some examples of indirect taxes.

### 40.3.1 Excise Duty

The tax imposed by the government on the manufacturer or producer on the production of some items is called excise duty. The liability to pay excise duty is always on the manufacturer or producer of goods. The duty being a duty on manufacture of goods, it is normally added to the cost of goods, and is collected by the manufacturer from the buyer of goods. Therefore it is called an indirect tax. This duty is now termed as "Cenvat". There are three types of parties who can be considered as manufacturers-

- Those who personally manufacture the goods in question

Those who get the goods manufactured by employing hired labour
Those who get the goods manufactured by other parties
For example, excise duty on the production of sugar is an indirect tax because the manufacturers of sugar include the excise duty in the price and pass it on to buyers. Ultimately it is the consumers on whom the incidence of excise duty on sugar falls, as they will pay higher price for sugar than before the imposition of the tax.

In order to attract Excise duty liability, following four conditions must be fulfilled:
a) The duty is on "goods".
b) The goods must be "excisable"
c) The goods must be "manufactured" or produced.
d) Such manufacture or production must be "in India".

### 40.3.2 Additional Information on Excise Duty

Goods : These are the entities, which can be weighted, measured and marketed. e.g. steel, cloth, computer software, gas, etc. Those commodities having very short life are not goods, if not marketable in that short period, even if there is a specific entry in the tariff.
Excise duty can only be levied on those items, which are manufactured in India but excluding

## Indirect Taxes

goods produced or manufactured in Special Economic Zones (SEZ). Thus, excise levy cannot be imposed on imported goods.
Payment of excise duty : In case of Non-SSI (Small Scale Industries) i.e., normal assesses the excise duty is payable monthly, and for SSI (availing exemption based on turnover) it is payable quarterly. The duty on the goods removed from the factory or the warehouse during the month shall be paid by the 5th of the following month in case of Non-SSI and by 15th for SSI. In case of delayed payment, interest should also be deposited at the rate of $13 \%$ p.m or Rs 1,000 per day for the period of delay after 5th or 15th whichever is applicable, whichever is higher, along with the duty.
Payment by debit in Cenvat credit account: Under the Cenvat credit scheme, the assessee is allowed credit of duty paid on inputs or capital goods, which are used in or in relation to manufacture of the final products, and the credit can be utilized towards payment of duty on the final products. Credit is allowed on inputs and capital goods except LDO (light diesel oil), HSD (high speed diesel) and motor spirit. Also, instant credit is allowed immediately on the inputs being received into the factory. However credit is not allowed if final products are exempted from duty.
Following example will illustrate the credit method of Cenvat.
Let the price of the commodity be Rs 100, When the transaction takes place without cenvat, B purchases from A at Rs 110,(10\% as excise duty). After addition a value of Rs 40, the subtotal is Rs 150. He pays $10 \%$ tax on it (i.e Rs15) then total is 165 . As against this, in the second case, when transaction takes place with Cenvat, B purchases from A at Rs 100 because he got credit on that amount. After adding the same value of Rs 40 , the sub total is Rs 140 , He has to pay $10 \%$ of excise on Rs 140,i.e Rs 14, then total becomes Rs. 154. Here you can observe easily that transaction with Cenvat is clearly beneficial. The details are exhibited in the following tabular form:

|  | Transaction without Cenvat |  | Transaction with Cenvat |  |
| :--- | :--- | :--- | :--- | :--- |
| Details | A | B | A | B |
| Purchases | - | 110 | - | 100 |
| Value added | 100 | 40 | 100 | 40 |
| Sub-total | 100 | 150 | 100 | 140 |
| Add-tax $10 \%$ | 10 | 15 | 10 | 14 |
| Total | 110 | 165 | 110 | 154 |

Exemption from Payment of Excise Duty: Central excise rules grant exemption from duty if goods are exported under bond, except exports to Nepal and Bhutan. Similarly, goods manufactured in Special Economic Zones (SEZ) are not excisable and hence no excise duty can be levied on goods manufactured in SEZ. Certain other items, which are exempted for excise duty, are enlisted in Annexure-'A', given at the end of this lesson.
Generally $16 \%$ excise duty and $2 \%$ cess on it are imposed on most goods, but government can fix different tariff values for different classes of goods or goods manufactured by different classes or sold to different classes of buyers. Few exceptions like the following are there in case of Textile sector.

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|  |  |  | Indirect Taxes |  |
| :---: | :---: | :---: | :---: | :---: |
| OPTIONAL - IIMathematics forCommerce, Economicsand Business | Sl. <br> No. | Type of Goods | Excise <br> Duty | Cess |
|  | 1. | Unprocessed fabrics of cotton, man-made (synthetic) and woolen other than (2) given below. | 10\% | $2 \%$ |
|  | 2. | Unprocessed knitted or crocheted fabric of cotton not containing any other textile materials. | 8\% | 2\% |
| Notes | 3. | If readymade garments are made up of $100 \%$ cotton fabrics and also knitted or crocheted | 8\% | 2\% |
|  | 4. | Readymade garments other than (3) above | 10\% | 2\% |
|  | 5. | All types of clothing accessories if made up of $100 \%$ cotton and also knitted or crocheted. | 8\% | 2\% |
|  | 6. | Clothing accessories other than (5) above. | 10\% | 2\% |

### 40.3.3 Valuation for Excise Duty

Specific duty: It is the duty payable on the basis of certain unit e.g. duty on cigarettes is on length basis, sugar per quintal basis, matches per 100 boxes, marble slabs and tiles per square meter basis and colour TV by screen size in cm, if MRP is not written on the carton.
Tariff Value: Government from time to time fixes tariff value. Government can fix different tariff values for different classes of goods manufactured by different classes or sold to different classes of buyers.
MRP based valuation : The provisions are as follows:
i) The goods should be covered under provisions of Standards of Weights and Measures Act.
ii) Central Government can permit reasonable abatement (deductions) from the retail sale price.
iii) Central Government has to issue a notification in Official gazette specifying the commodities for which the provision is applicable and the abatement permissible.
For example, government had issued a notification to reduce the excise duty on cosmetics and toilet preparations on MRP basis printed on the carton after allowing abatement of $50 \%$. In such cases, if MRP printed on carton is Rs 50 and if the duty on cosmetics \& toilet preparations is $20 \%$, the duty @ $20 \%$ will be payable on Rs 25 (i.e after allowing $50 \%$ abatement of MRP of Rs 50). Thus duty payable per pack will be Rs. 5.00.
Assessable Value: The basic provision of assessable value, when excise duty is chargeable on excisable goods with reference to value will be transaction value on each removal of goods. Transaction value is defined as the price actually paid or payable for the goods, when sold and includes in addition to the amount charged as price, any amount that the buyer is liable to pay, including any amount charged for advertising or publicity, marketing and selling organization expenses, storage, outward handling, servicing, warranty, commission or any other matter, but does not include the amount of excise duty, sales tax and other taxes.

## Indirect Taxes

40.3.4 Export benefits under Central Excise

Inputs free of duty: Exporting units need raw materials without payment of customs/excise duty, to enable them to compete for exporting. Exports free of duty on finished product: exports of almost all excisable goods except hides, skins and leather and salt and exports to all countries except to Nepal and Bhutan are exempted from central excise duties.

Example 40.1 Shivam Enterprises, manufactures 60 units of steam irons per day, and its input cost is Rs. 200 per unit. The company adds a value of Rs. 100 and then sells it after paying $10 \%$ excise duty. Calculate the final price of each steam iron, and how much total duty has been paid at the end of the month when the transaction is without Cenvat.

Solution : Input Cost

$$
=\text { Rs. } 200 \text { per unit }
$$

Value added

$$
=\text { Rs. } 100
$$

Total

$$
\text { = Rs. } 300
$$

for 60 units per day in a month $=60 \times 30=1800$ units

Duty paid

$$
=R s .300 \times 1800 \times \frac{10}{100}=\text { Rs. } 54,000
$$

Example 40.2 Ganesh and Sons, produce 100 kgs chocolate biscuits per day at the cost of
Rs. 50 per kg. If the excise duty is $5 \%$, then how much duty has to be paid at the end of the month, if Rs. 20 per kg is added to the cost.

Solution: Input Cost per kg. = Rs. 50
Value added
$=$ Rs. 20
Total =Rs. 70

Duty for one month

$$
=R s .\left[70 \times 100 \times 30 \times \frac{5}{100}\right]=\text { Rs. } 10500
$$

Example 40.3 Sharma and Company manufactures 5 quilts a day and uses cotton fiber
(Rs. 100 per kg ) and cotton cloth (Rs. 50 per meter) as input. In making one quilt 2 kgs of cotton fibre and 5 meters of cloth are used. If excise duty on cotton fiber is $8 \%$ and on cloth it is $10 \%$ while on quilt it is $12 \%$, calculate the total duty paid to the government in one month when the value added by the Company is Rs. 109 per quilt, if the transaction is (i) without Cenvat (ii) with Cenvat.

Solution :Input cost of 1 quilt $=R s .(2 \times 100+5 \times 50)$

$$
=\text { Rs. } 200 \text { on cotton fiber }+ \text { Rs. } 250 \text { on cloth. }
$$

$\therefore$ (i) Without Cenvat (for one quilt)
Cotton Fibre $=\frac{\text { Rs. } 200}{+ \text { Rs. } 16}$

$$
\frac{\text { Cloth }=\text { Rs. } 250}{+ \text { Rs. } 25}
$$

Rs. 216

$$
=\text { Rs. }(216+275) \quad=\text { Rs. } 491
$$

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Notes
(ii) With Cenvat (for one quilt)

$$
\begin{array}{ll}
\text { Input cost }=\text { Rs. }(200+250) & =\text { Rs. } 450 \\
\text { Value added } & =\text { Rs. } 109 \\
\text { Total } & =\text { Rs. } 559 \\
\text { Duty }(12 \%) & =67.08 \\
\text { Total } & =626.08 \\
\text { Total duty paid for one month } & =5 \times 67.08 \times 30=\text { Rs. } 10,062
\end{array}
$$

Example 40.4 Mrs. Ahuja's unit stiches 20 ladies suits out of which $50 \%$ she exported to America and the rest $50 \%$ are sold in the domestic market. In preparing one suit, 5 meters cloth is required which is purchased at Rs. 120 per meter and she adds value of Rs. 100 per suit. If excise duty on cloth is $5 \%$ then calculate how much excise duty she has to pay to the government at the end of the month using Cenvat transaction method.

Solution : Input cost for one suit

$$
=R s .5 \times 120=\text { Rs. } 600
$$

Value added
$=$ Rs. 100
Total
=Rs. 700
Duty (5\%)

$$
\text { =Rs. } 35
$$

Total = Rs. 735
Duty paid for 1 month

$$
=\text { Rs. } 10 \times 30 \times 35=\text { Rs. } 10500
$$

[ $\because 50 \%$ are exported on which, no duty is paid]
Example 40.5 A sugar mill produces $10,000 \mathrm{kgs}$ of sugar per day at an input cost of Rs. 20 per kg and adds a value of Rs. 10 per kg. The excise duty is $5 \%$ which is to be paid on 5 th of the following month. If delayed a penalty of $13 \%$ per month or Rs. 1000 per day, whichever is higher is to be paid. The Company paid the duty on 20th day of the following month. How much duty has to be paid with Cenvat.

Solution: Input cost per kg = Rs. 20
Value added = Rs. 10
Total =Rs. 30
Duty (5\%) = Rs. 1.50
Total
Total Duty for 1 month $\quad=10,000 \times 1.50 \times 30=$ Rs. $4,50,000$
penalty

$$
=R s .\left[450,000 \times \frac{13}{100} \times \frac{15}{30}\right]=R s .29250
$$

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Total paid $=$ Rs. $[450000+29250]=$ Rs. 479250
Example 40.6 Mr. Gowda and Company manufactured 2000 tons of steel in a month at the rate of Rs. 18000 per ton, excise duty is $16 \%$ with $2 \%$ education cess. The Company exported half of the production to Uganda. The Company could not pay the duty on time, how much duty will have to be paid at the end of 20 days after the due date.
Solution : Quantity produced per month $=2000$ tons
Quantity eligible for duty
Cost $=$ Rs $.1000 \times 18000$

$$
\begin{aligned}
& =1000 \text { tons } \\
& =\text { Rs. } 18,00,000 \\
& =\text { Rs. } 2880000 \\
& =\text { Rs. } 57600 \\
& =\text { Rs. } 2937600
\end{aligned}
$$

Duty (16\%) = Rs. 2880000
Education cess (2\%) = Rs. 57600
Total

Penalty

$$
=R s .2937600 \times \frac{13}{100} \times \frac{20}{30}=R s .254592
$$

Total to be paid

$$
\begin{aligned}
& =\text { Rs. }[2937600+254592] \\
& =\text { Rs. } 3192192
\end{aligned}
$$

Example 40.7 Singh and Company produces steel utensils at the rate of 200 kgs per day after using inputs of Rs. 10,000 . The excise duty is $16 \%$ with $2 \%$ education cess. If the duty is paid 10 days after the due date, calculate the amount of penalty to be paid.
Solution :

$$
\begin{array}{ll}
\text { n : } \quad \text { Inputs } & =\text { Rs. } 10000 \\
\text { Duty }(16 \%) & =\text { Rs. } 1600 \\
\text { Education cess } & \text { =Rs. } \quad 32
\end{array}
$$

$$
\text { Total }=\text { Rs. } 1632
$$

Penalty

$$
=\text { Rs. } 1632 \times \frac{13}{100} \times \frac{10}{30}=\text { Rs. } 70.72
$$

Which is less than Rs. $10 \times 1000=$ Rs. $10000(@$ Rs. 1000 per day $)$
Penalty to be paid is Rs. 10,000
Example 40.8 Singla Enterprises produces 10 kgs . of wafers per day by using inputs of Rs. 150 . The company added a value of Rs. 10 per kg . The excise duty is $16 \%$. Calculate the total excise duty paid after a month through (i) with Cenvat (ii) without Cenvat.

| Solution: (i) With Cenvat |  |  |
| ---: | :--- | :--- |
| Input Cost | $=$ Rs. 150 |  |
| Value added | $=10 \times 10=$ Rs. 100 |  |
| Total | $=$ Rs. 250 |  |
| Duty $(16 \%)$ | $=$ Rs. 40 |  |
| Total | $=$ Rs. 290 |  |
| $\therefore$ Total duty paid per month | $=$ Rs. $40 \times 30$ |  |
|  |  | $=$ Rs. 1200 |

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(ii) Without Cenvat

| Input Cost | $=$ Rs. 150 |
| :--- | :--- |
| Duty $(16 \%)$ | $=$ Rs. 24 |
| Total | $=$ Rs. 174 |
| Value added | $=$ Rs. 100 |
| Total | $=$ Rs. 274 |
|  |  |
| Duty $(16 \%)$ | $=$ Rs. 43.84 |
| Total | $=$ Rs. 317.84 |
| Total duty paid | $=$ Rs. $(43.84+24.00) \times 30$ |
|  | $=$ Rs. 2035.20 |

$\therefore$ With Cenvat is beneficial to the customer.

## CHECK YOUR PROGRESS 40.1

1. A cotton mill, manufactures 100 kgs of cotton and 118 kgs of nylon per day. The cost of production of cotton and nylon is Rs. 18.50 per kg, and Rs. 23.69 per kg respectively. If the excise duty on cotton is $8 \%$ and on nylon is $10 \%$, how much excise duty, the mill has to pay at the end of each month?
2. Kohli Garments, manufactures readymade garments. It utilizes 50 meters of cloth per day which is Rs. 60 per meter. From 50 meters of cloth, it produces 30 frocks which are sold after adding a value of Rs. 50 for each frock. If the excise duty on frocks is $10 \%$, calculate the total excise duty, the company has to pay to the government per month, if the transaction is with Cenvat.
3. Gupta and Sons produces plastic bags in two factories. One is in Special Economic Zone (SEZ). Both factories produce equal amount of plastic bags i.e. 100 kgs per day. If the excise duty levied is $20 \%$, calculate the excise duty paid at the end of the month, when the company is selling these bags at a price of Rs. 60 per kg including the excise duty paid.
4. Mrs. Mehta in her factory manufactures biscuits at the rate of 1000 kgs . per day. She fixes Rs. 80 per kg. as MRP and gets abatement of $50 \%$ on biscuits. How much duty she has to pay at the end of the month if excise duty on biscuits is $16 \%$.
5. A company manufactures 10 refrigerators per day at the rate of Rs. 21500. Duty to be paid is $10 \%$ with abatement of $20 \%$. How much duty the company has to pay at the end of the month?

### 40.3.5 Customs Duty

Custom duty is a form of indirect tax. Standard English dictionary defines the term "custom" as duties imposed on imported or less commonly exported goods. This term is usually applied to those taxes which are payable upon goods or merchandise imported or exported. It is also defined as tax imposed by the government on the import of items (goods). The Customs Act

## Indirect Taxes

was formulated in 1962 to prevent illegal imports and exports of goods. Besides, all imports are sought to be subject to a duty with a view to affording protection to indigenous industries.

### 40.3.6 Additional Information on Customs Duty

Education cess @ 2\% : With effect from 10.09.2004 an education cess has been levied on items imported into India. It is leviable @2\% on the aggregate of customs duties leviable on such goods.
No duty on pilfered goods: If any imported goods are pilfered after the unloading thereof and before the proper officer has made on order for clearance for home consumption or deposit in a warehouse, the importer shall not be liable to pay the duty leviable on such good. The term "pilfer" means to steal especially in small quantities.

Abatement of duty on damaged goods: The term 'damage' denotes physical damage to the goods. This implies that the goods are not fit to be used for the purpose for which they are meant. The damaged goods get some $\%$ of abatement of damage in the customs duty.
Exemption: Article 265 of the Indian Constitution provides that 'no tax shall be levied or collected except by authority of law. The power of the central government to alter the duty rate structure is known as delegated legislation and this power is always subject to superintendence and check by parliament. If the central government is satisfied that it is necessary in the public interest so to do, then whole or part of customs duty can be exempted from the customs duty.
Additional duty of Customs: Apart from the customs duty levied as a percentage of the value of goods, the following example illustrates the method of computing the additional duty of customs.
Assessable value
: Rs 1,000
Rate of basic customs duty
: 25\%
Rate of additional customs duty
: 16\%
Basic customs duty @ $25 \%$ of Rs 1000
: Rs 250
Total value for computing additional customs duty
: Rs 1250
Additional customs duty ( $16 \%$ on Rs1250)
: Rs 200
Total duty payable $250+200$
: Rs 450
Example 40.9 Chaddha \& Chaddha group of companies imports steel worth Rs 10 crores and customs duty levied on steel is $10 \%$. Calculate the total amount of custom duty they have to pay on this transaction, if $2 \%$ education cess is to be charged on customs duty.
Solution : Total cost of imported steel is Rs 10 crore i.e. 100000000
Custom duty imposed @ 10\%

$$
\begin{aligned}
& =100000000 \times \frac{10}{100} \\
& =10000000
\end{aligned}
$$

Education cess $=10000000 \times \frac{2}{100}=R s .200,000$
Total duty paid by the company is Rs. $102,00,000$.

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Example 40.10 Ram Kumar imports 25 quintals of fiber from England at the rate of $£ 500$ per quintal. Customs duty levied on fiber is $40 \%$. Calculate how much he has to pay (in rupees) to the government as customs duty, if $2 \%$ education cess is to be charged on customs duty. (Take £ 1 = Rs. 80)
Solution : Total cost of fiber $=$ Rs. $25 \times 500 \times 80$
= Rs. 10,00,000
customs duty $\quad=R s .10,00,000 \times \frac{40}{100}$

$$
=\text { Rs. 400,000 }
$$

Education cess $(2 \%) \quad=$ Rs. 8000
Total amount to be paid = Rs. 408000
Example 40.11 Mr. Prasad imports 700 kgs of sugar per day @ Rs 20 per kg, Customs duty on sugar is $20 \%$. How much customs duty he has to pay in a month, if $2 \%$ education cess is to be charged on customs duty.
Solution: Total cost per day $=$ Rs. $[700 \times 20]=$ Rs .14000

Customs duty

$$
=14000 \times \frac{20}{100}=\text { Rs. } 2800
$$

Customs duty for the month $=$ Rs. $2800 \times 30$

Education cess (2\%)
Total

$$
=\text { Rs. } 84000
$$

$$
\text { = Rs. } 1680
$$

$$
\text { = Rs. } 85680
$$

Example 40.12 Mr. Kumar imports 50 kgs of chocolate @ Rs 250 per kg, 80 kgs of biscuits @ Rs 400 per kg and 1 quintal of wafers @ Rs 200 per kg. 25\% of chocolate, $10 \%$ of biscuits and $15 \%$ of wafers were damaged in the transport. Customs duty on all these items is $25 \%$ but on damaged goods it is $5 \%$. Calculate the total amount of duty he has to pay for this transaction, if $2 \%$ education cess is to be charged on customs duty.
Solution:

Damaged Items
Chocolates $=50 \times \frac{25}{100}=12.5 \mathrm{~kg} \quad$ Chocolates $=37.5 \mathrm{~kg}$
Biscuits $=80 \times \frac{10}{100}=8 \mathrm{~kg} \quad$ Biscuits $=72 \mathrm{~kg}$
Wafers $=100 \times \frac{15}{100}=15 \mathrm{~kg} \quad$ Wafers $=85 \mathrm{~kg}$
Cost $=R s .(12.5 \times 250+8 \times 400+15 \times 200)=R s .9325$ (damaged items)
Cost $=$ Rs. $(37.5 \times 250+72 \times 400+85 \times 200)=R s .55175$ (undamaged items)

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$\therefore$ Duty
Education cess

$$
=295
$$

Total $=15021.25$

Example 40.13 Mr. Mohta imports 5 T.V. sets@ $\$ 240$ per set, 10 dish washers @ \$400 per unit and 25 computers @ $\$ 500$ per unit from Japan. Customs duty on TV is $25 \%$, on dish washer $30 \%$ and computer is exempted from customs duty. Calculate the total amount of customs duty (in rupees) he has to pay, if $2 \%$ education cess is to be charged on customs duty.
(Take $\$ 1=$ Rs 45).
Solution: Customs Duty on 5 TV sets

$$
=R s .\left[5 \times 240 \times 45 \times \frac{25}{100}\right]=R s .13500
$$

customs duty on 10 dish washer

$$
=R s .\left[10 \times 400 \times 45 \times \frac{30}{100}\right]=R s .54000
$$

Customs duty on computers = NIL
Total duty paid = Rs. 67500
Education cess (2\%) = Rs. 1350
Total

$$
\text { = Rs. } 68850
$$

Example 40.14 Mr. Gupta imports 20 Quintals of packed food @ Rs. 20 per kg. Customs duty imposed on it is $25 \%$ and $16 \%$ of additional duty. Calculate the total amount Mr Gupta has to pay to the government, if $10 \%$ of the goods were pilfered. Assume that $2 \%$ education cess is charged on customs duty.

| Solution: Quantity pilfered | $=2$ quintals |
| :--- | :--- |
| Balance | $=18$ quintals |
| Cost | $=$ Rs. $[18 \times 2000]=$ Rs. 36000 |
| Customs duty $(25 \%)$ | $=$ Rs. 9000 |
| Total | $=$ Rs. 45000 |
|  |  |
| Additional duty $(16 \%)$ | $=$ Rs. $45000 \times \frac{16}{100}=$ Rs. 7200 |
| Total duty paid | $=$ Rs. $(9000+7200)$ |
|  | $=$ Rs. 16200 |
| Education cess $(2 \%)$ | $=$ Rs. 324 |
| Total | $=$ Rs. 16524 |

Example 40.15 Mr. Khurana imports 200 kgs of cashew nuts in which $50 \%$ are shelled and $50 \%$ are inshelled and 100 kgs of almonds out of which $50 \%$ are shelled and $50 \%$ are inshelled.

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Customs duty on shelled nuts is $70 \%$ and $60 \%$ in case of inshelled nuts. Inshelled cashew nut is Rs 200 per kg and shelled is Rs 250 per kg and inshelled almond is Rs 300 per kg and shelled is Rs 350 per kg. If $25 \%$ cess is levied as additional duty on shelled nuts, calculate how much Mr Khurana has to pay as customs duty, if $10 \%$ of the goods were pilfered. Assume that $2 \%$ education cess is charged on customs duty.
Solution: Cost of shelled cashew nuts $=$ Rs. $(100 \times 250)=$ Rs. 25000
Duty

$$
\begin{aligned}
=R s .25000 \times \frac{70}{100} & =R s .17500 \\
& =\text { Rs. } 42500 \\
=R s .\left[42500 \times \frac{25}{100}\right] & =R s .10625
\end{aligned}
$$

$$
\begin{equation*}
=\text { Rs. } 28125 \tag{i}
\end{equation*}
$$

$$
\begin{equation*}
=R s .100 \times 200 \times \frac{60}{100}=R s .12000 \tag{ii}
\end{equation*}
$$

$$
=\text { Rs. } 350 \times 50=\text { Rs. } 17500
$$

$$
=R s .17500 \times \frac{70}{100}=R s .12250
$$

$$
\text { = Rs. } 29750
$$

$$
=R s .\left(29750 \times \frac{25}{100}\right)=R s .7437 .50
$$

$$
\begin{equation*}
=\text { Rs. } 19687.50 \tag{iii}
\end{equation*}
$$

$$
\begin{equation*}
=R s .\left[300 \times 50 \times \frac{60}{100}\right]=R s .9000 \tag{iv}
\end{equation*}
$$

Adding (i), (ii), (iii) and (iv) we have
Amount = Rs. 68812.50
Education Cess = Rs. 1376.25
Total $\quad=$ Rs. $70188.75 \approx$ Rs. 70189

## CHECK YOUR PROGRESS 40.2

1. Kishori Lal \& Sons, imports 100 quintals of wheat @ Rs 1000 per Quintal and Customs duty levied on wheat is $35 \%$. If $5 \%$ of the import items are pilfered then how much duty they have to pay, if $2 \%$ education cess is to be charged on customs duty.
(Note: No customs duty is paid on the pilfered goods).
2. Mr. Gulati imports 90 kgs of wheat @ Rs 10 per kg and 120 kgs of rice @ Rs 20 per kg.The customs duty on import of wheat is $35 \%$ as against $20 \%$ for rice. Find the total duty paid, if $2 \%$ education cess is to be charged on customs duty.
3. Moti Lal \& Company imports capital equipments worth Rs 10,000 crores. He supplies these goods to public as well as to private enterprises on 50:50 basis. For public enterprises customs duty is $30 \%$ but it is double in case of private enterprises. Calculate how much

## Indirect Taxes

customs duty he has to pay in total, if $2 \%$ education cess is to be charged on customs duty.
4. Mr. Mittal imported 2500 quintals of wheat @ Rs. 12 per kg, $20 \%$ of customs duty and $2 \%$ educational cess is levied on it. If $2 \%$ of the wheat was pilfered and $5 \%$ are damaged on which $5 \%$ duty is levied, calculate the total amount payable to the government?

### 40.3.7 Sales Tax

Tax paid by the consumer on the purchase of some items is called the sales tax. Rates of sales tax
OPTIONAL - II Mathematics for Commerce, Economics and Business depend upon the nature of the goods purchased by the consumer.

### 40.3.8 Value Added Tax

Under the Indian constitution, the States have the exclusive powers to levy tax on the sales of goods. The tax on the inter-state trade is levied by central government, and is called Central Sales Tax (CST). It is proposed to abolish CST in phased manner. Due to various defects in the Sales Tax System, the Govt, has introduced a new system called Value Added Tax (VAT) in place of State Sales Tax.
VAT is a multi-point tax levied and collected on the value added to goods at different stages of sale. It is a method of taxing by stages. The method consists of levying a tax on the value added to a product at each stage of production or distribution. It is another form of sales tax where tax is collected in stages rather than collection of the tax at the first or last point. VAT, in simple terms, is a multi-point levy on each of the entities in the supply chain with the facility of set-off of input tax i.e. that is, the tax paid at the stage of purchase of goods by a trader and on purchase of raw materials by a manufacturer. Only the value addition in the hands of each of the entities is subject to tax. For instance, if a dealer purchases goods for Rs 100 from another dealer and a tax of Rs 10 has been charged in the bill, and he sells the goods for Rs 120 on which the dealer will charge a tax of Rs 12 at 10 per cent, the tax payable by the dealer will be only Rs 2 , being the difference between Rs. 12 the tax collected and Rs. 10 tax already paid on purchases. Thus, the dealer has paid tax at 10 per cent on Rs 20 being the value addition of goods in his hands.
Most State governments have implemented VAT w.e.f. 1.4.2005. Haryana was the first state to implement VAT w.e.f. 1.4.2004 in the first year itself, Growth in tax revenue has been reported by the States as compared to the tax collection during the same period in previous year. In case of the loss to the State on switching over to VAT, the Central Government will compensate the loss to the State.

### 40.4 CHARACTERISTICS OF VAT

1. It is simple, modern and transparent tax system.
2. It is a multipoint tax with credit for the tax paid at preceding stage.
3. Small traders (whose turnover is up to Rs10 lakhs) are outside VAT.
4. VAT replaces a number of taxes like turnover tax, luxury tax, surcharge etc.
5. VAT being efficient is considered to be better than sales tax.
6. VAT has four rates instead of the large number of rates under sales tax.
7. Composition scheme for small dealer having turnover above taxable quantum of Rs 10 lakhs but below 50 lakhs.

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8. VAT eliminates cascading by providing credit of taxes paid on inputs and only taxing value addition.

### 40.4.1 Calculation of Tax Liability under VAT

Suppose a TV dealer sells TV worth Rs. 20,000 and VAT is $4 \%$, he will collect Rs. 800 $(20,000 \times 0.04)$ as VAT. If the dealer had purchased the TV for Rs. 19,000 and at that time he had already paid Rs. 760 as VAT. So the VAT payable by the dealer will be $800 \quad 760=40$. He will pay to the government only Rs. 40.00 the tax payable is tax rate multiplied by valuation addition. In this case it would be $0.04 \times(20000-19000)=40$.
VAT liability for any tax period, is calculated by decreasing total input tax from total output tax. The output tax is calculated by multiplying the turn over (Sales) by applicable VAT rates.

## Net tax = output tax - input tax

If difference is (+) pay this amount to government.
If difference is ( - ) apply excess credit against your VAT liability and claim refund for any remaining balance OR the excess credit can be carried forward to the next period.

### 40.4.2 Advantages of VAT

1. Self-assessment by dealers.
2. Higher revenue growth from states.
3. Set off for input tax paid on previous purchases.
4. Other taxes to be eliminated.
5. Fairness in the taxation system. Visits to tax department will reduce.
6. Help to reduce tax evasion and corruption.
7. Uniform rates of VAT will boost fair trade.
8. VAT does not lead to price rise.
9. VAT is easier to enforce.

### 40.4.3 Disadvantages of VAT

1. Record keeping systems and procedure will need to re-strengthen with Tax Authorities in order to claim input tax credit.
2. VAT may lead to tax evasion if false input credits are submitted by dealers.

### 40.4.4 Additional Information on VAT

Turnover: It means the aggregate of the amounts of purchase price paid or payable by a person in any tax period, including any input tax.
Sale: Any transfer of property in goods by one person to another for cash or for any deferred payment.
Rates of Tax: The rates of VAT payable on the taxable turnover of a dealer shall be :
i) in respect of goods specified in the second schedule, at the rate of $1 \%$.
ii) in respect of goods specified in the third schedule, at the rate of $4 \%$.
iii) in respect of goods specified in the fourth schedule, at the rate of $20 \%$.

## Indirect Taxes

iv) and all the goods other than those in three schedules, at the rate of $12.5 \%$.

Tax Credit: A dealer who is registered shall be entitled to a tax credit in respect of the turnover of purchases occurring during the tax period where the purchase arises in the course of his activities as a dealer and the goods are to be used by him directly or indirectly for the purpose of making sale.
No tax credit shall be allowed
i) in the case of the purchase of goods from a person who is not a registered dealer.
ii) for the purchase of goods which are to be incorporated into the structure of a building owned or occupied by the person.
iii) when a dealer has purchased goods and the goods are to be used partly for the purpose of making the sales, the amount of the tax credit shall be reduced proportionately.
Net Tax: The net tax payable by a dealer for a tax period shall be determined by the formula:

$$
\text { Net tax }=O-I-C
$$

where
$\mathrm{O}=$ the amount of tax payable by the person at rates stipulated in respect of the taxable turnover arising in the tax period.
$\mathrm{I}=$ the amount of the tax credit arising in the tax period to which the person is entitled for adjustment to the tax credit required by this Act.
$\mathrm{C}=$ the amount if any, brought forward from the previous tax period.
Penalty: If a person is required to furnish a return, but fails to furnish any return by the due date or fails to furnish with a return any other document that is required to be furnished with the return then he has to pay penalty of Rs 100 . per day from the day on which the requirement arose until the failure is rectified and maximum amount of this penalty is Rs. 10,000 .

Example 40.16 If 'A' purchases goods worth Rs. 20,000 from the manufacturer and adds value of Rs. 5,000, calculate the total sale price of the product, if VAT levied @ $12.5 \%$.
Solution: Cost price = Rs. 20,000
Value added = Rs. 5000
$\operatorname{VAT}(12.5 \%)=R s .5000 \times \frac{125}{1000}=R s .625$
Total sale price = Rs. 25625
Example 40.17 Ms. Raghava purchases cotton fiber @ Rs. 50 per kg and 1 kg of fiber produces 2 meters of cloth. She again sold this cloth in the market @ Rs. 38.50 per meters, VAT levied on the cloth is $8 \%$. Calculate the total VAT collected by the govt. in this whole transaction?

Solution: Cost of cotton fiber $=$ Rs. 50
Selling price of cloth $=$ Rs. 77
Difference $=$ Rs. 27
$\therefore 27=$ value added $+V A T T$

$=x+\frac{8}{100} \cdot x=\frac{27 x}{25}$
$x=25$ i.e value added $=$ Rs. 25

Example 40.18 Mr. Singh purchases 10 computers @ Rs. 17,500 per computer. On each computer he earns Rs. 2000 and pays VAT @ $8 \%$. What will be the total sale price of these 10 computers and how much VAT he has to pay?

| Solution: Cost of one computer | = Rs. 17500 |
| :--- | :--- |
| Value added (profit) | = Rs. 2000 |
| Total | = Rs. 19500 |
| VAT $(8 \%)$ | = Rs. 160 |
| Selling price of one computer | = Rs. 19660 |
| Total selling price of 10 computers | = Rs. 196600 |
| Total VAT paid | = Rs. 1600 |

Example 40.19 A washing machine dealer, purchases 5 washing machines (WM) @Rs.
22,000 per unit and 2 WM @ 25,000 per unit from the company. After earning profit of Rs. 6000 on each machine. The dealer sells 5 WM at Rs. 28750 and 2 WM at Rs. 31750. How much percentage of VAT he has paid and what is the total amount paid by him to the government as VAT.
Solution: Cost of 5 Washing Machines $=$ Rs. $5 \times 22000=$ Rs. 110000
Profit earned $=5 \times 6000=$ Rs. 30000
Total $=$ Rs. 140000
Selling price
$=$ Rs. $[5 \times 28750]=$ Rs. 143750
$=$ Rs. ( $143750-140000$ ) =Rs. 3750
$=\frac{3750}{30000} \times 100=12.5 \%$
$=$ Rs. 50000
= Rs. 12000
= Rs. 1500
=Rs. 63500
$\therefore$ Total VAT paid $=$ Rs. $(3750+1500)$
= Rs. 5250
Example 40.20 Suppose a computer dealer sells computer at Rs. 12,240 and he purchases the same computer at Rs 8000 . VAT levied on computers is @ $8 \%$ but he gets rebate @2\% .Calculate how much VAT he has to pay and how much is the total collection of VAT by the government.
Solution: $\quad$ Cost Price $=$ Rs. 8000, Selling Price $=$ Rs. 12240

## Indirect Taxes

| $\therefore$ Profit +VAT | $=$ Rs. 4240 |
| :--- | :--- |
| $\operatorname{VAT}(\%)$ | $=(8-2) \%=6 \%$ |

$\therefore 4240=$ profit $+6 \%$ of profit $=x+\frac{6}{100} \cdot x=\frac{53 x}{50}$
or,

$$
x=R s . \frac{4240 \times 50}{53}=R s .4000
$$

$\therefore$ VAT paid $\quad=$ Rs. $(4240-4000)=$ Rs. 240
Example 40.21 A dealer purchases dish washer (DW) at Rs. 15,000 and further sells it at Rs. 20,200. If VAT levied on DW is $4 \%$, calculate profit earned by him and how much VAT he has to pay to the govt. Also calculate the total VAT given to the govt. in this whole transaction.
Solution: Cost Price of Dish washer = Rs. 15000

$$
\begin{array}{ll}
\text { Selling Price } & =\text { Rs. } 20200 \\
\therefore \text { Difference } & =\text { Rs. } 5200
\end{array}
$$

Let value added = Rs.x
$\therefore \quad 5200=x+4 \%$ of $x=\frac{26 x}{25}$
or, $\quad x=5200 \times \frac{25}{26}=R s .5000$
$\therefore$ Profit earned $=$ Rs. 5000
VAT paid = Rs. 200
Example 40.22 Sushil purchases 100 Wall Clocks (WC) @ Rs. 70 per unit and he sold all these WC to Ramesh at Rs. 9250 where he earns profit of Rs. 2000. After adding value of Rs. 30 per unit Ramesh sells these WC in the market. If VAT is same on all these clocks, calculate how much VAT Sushil has to pay and at what price Ramesh sells these WC in the market.
Solution: Price paid by Sushil =Rs. $(100 \times 70)=$ Rs. 7000
Profit earned

$$
=\text { Rs. } 2000
$$

Total
= Rs. 9000
Selling price (including VAT)
= Rs. 9250
$\therefore$ VAT
$=$ Rs. 250
$\therefore$ VAT (\%)
$=\frac{250}{2000} \times 100=12.5 \%$
Price paid by Ramesh
= Rs. 9250
Value added
=Rs. 3000
Total
$=$ Rs. 12250
VAT
$=$ Rs. $\frac{12.5}{100} \times 3000=$ Rs. 375

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Selling Price $=$ Rs. $(12250+375)=$ Rs. 12625


## CHECK YOUR PROGRESS 40.3

1. A wholesaler bought 2 quintals of rice at Rs. 4,000 per quintal on which he added value of Rs. 750 per quintal. If VAT levied is @ $8 \%$ then what will be its total sale price?
A wholesaler purchases wheat @ Rs. 1000 per quintal, and then after converting the wheat into flour he sells it to the retailer @ Rs. 15.20 per kg. If he pays VAT @ $4 \%$, calculate the total profit earned by the wholesaler.
2. Sudhir a garment merchant purchases garments worth Rs. 50,000. By adding his profit of Rs. 15,000 he sold the whole stuff at Rs. 66,200 . Calculate at which rate VAT was levied and total collection of VAT by the govt.
3. A manufacturing unit of AC (Air Conditioner) sold an AC to the dealer at certain rate who further sold it to a customer at Rs. 22,800 making a profit of $50 \%$. If VAT is levied @ 4\%, calculate the rate at which AC was sold by the manufacturing unit to the dealer.
4. Gopal Electronics purchases 50 T.V. sets @Rs.10,000 per set and earns Rs. 5,000 on each set as a profit. If the company pays Rs. 25000 to the govt. as VAT, calculate at what rate VAT is levied on T.V. set.
5. Bob Robert purchases 200 electric steam irons @ Rs. 750 each and he earns Rs. 25 on first 50 irons, Rs. 50 on next 50 irons, Rs. 75 on next 50 irons and Rs. 100 on rest 50 irons. If VAT is levied @ $8 \%$, calculate total VAT paid by Bob Robert to the government.

### 40.4.5 Application of Sales Tax

A manufacturer produces goods worth Rs 100 and on that he has to pay $10 \%$ sales tax, which is Rs 10 , then its total sale price is Rs 110 ,
Manufacturer: $100+10=110$

$$
\text { C.P }+10 \% \text { S.T =T.S.P (Total Selling Price })
$$

Wholesaler purchases goods from the manufacturer at Rs 110 and adds Rs 20 as a profit and $10 \%$ sales tax, so his total sale price is Rs 143.
Wholesaler: $110+20=130+13=143$

$$
\text { C.P+ Profit }=\text { S.P }+10 \% \text { of S.P =T.S.P. }
$$

Retailer purchases the same commodity from the wholesaler at Rs 143 and adds Rs 27 as a profit which comes to Rs $170+10 \%$ sales tax. Now total sale price comes to be Rs 187 .
Retailer:

$$
143+27=170+17=187
$$

$$
\text { C.P + Profit }=\text { S.P }+10 \% \text { of S.P =T.S.P. }
$$

In the whole procedure total collection by the government in the form of sales tax is Rs. 40.
Government's total tax collection $=10+13+17=40$.

### 40.4.6 Application of value added tax

Manufacturer $=100+10=110$
C.P+VAT=T.S.P

## Indirect Taxes

Wholesaler: $110+20=130$, but he has to pay $\operatorname{tax}$ on $130-110=20$ ie. Rs. 2.

$$
\begin{aligned}
& \text { C.P+ Profit =S.P } \\
& 130+2=132
\end{aligned}
$$

S.P+VAT=T.S.P

Retailer: $132+27=159+2.7=161.7$
C.P+ Profit =S.P+VAT =T.S.P

Government's total tax collection $=10+2+2.7=14.7$
From the above illustration, it is clear that if sales tax and VAT are imposed on the goods whose cost price is same and same rate of taxes are imposed, in case of sales tax, Government collects Rs 40 but in the case of VAT the total collection by the Government is only Rs 14.70

### 40.4.7 Difference between VAT and Sales Tax

| SALES TAX | VAT |  |  |
| :--- | :--- | :--- | :--- |
| 1. | complex system. | 1. | simplified tax system. |
| 2. | different slabs of tax | 2. | only four slabs of tax |
| 3. | collected at one point i.e. first or last. | 3. | charged at each stage |
| 4. | no tax levied on value addition on | 4. | tax on each value addition |
| subsequent sales |  |  |  |
| 5. | problems of multiple taxation | 5. | a set off is given for previous purchases |
| 6. | discouragement to disclosure | 6. | encouragement to disclosure |

### 40.4.8 Merits of Indirect Taxes

1. Indirect taxes are usually hidden in the prices of goods and services being transacted and, therefore their presence is not felt so much.
2. If the indirect taxes are properly administered, the chances of tax evasion are less.
3. Indirect taxes are a powerful tool in moulding the production and investment activities of the economy i.e. they can guide the economy in its resource allocation.

### 40.4.9 Demerits of Indirect taxes

1. It is claimed and very rightly that these taxes negate the principle of ability- to-pay and are therefore unjust to the poor. Since one of the objectives is to collect enough revenue, they spread over to cover the items, which are purchased generally by the poor. This makes them regressive in effect.
2. If indirect taxes are heavily imposed on the luxury items then this will only help partially because taxing the luxuries alone will not yield adequate revenue for the State.
3. Direct taxes take away a part of the purchasing power of the taxpayer and that has the effect of reducing demand and prices. On the other hand, indirect taxes are added to the sale prices of the taxed goods without touching the purchasing power in the first place. The result is that in their case inflationary forces are fed through higher prices, higher costs and wages and again higher prices.

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Notes

Solution :(i) Wholesaler's Cost
VAT (8\%)
Total
Value added
VAT
Retailer's cost
Value added by retailer
VAT
$\therefore$ Net selling price
Total Tax paid
(ii) Wholesaler's Cost Price
Sales Tax
Solution :(i) Wholesaler's Cost
VAT (8\%)
Total
Value added
VAT
Retailer's cost
Value added by retailer
VAT
$\therefore$ Net selling price
Total Tax paid
(ii) Wholesaler's Cost Price
Sales Tax
Solution :(i) Wholesaler's Cost
VAT (8\%)
Total
Value added
VAT
Retailer's cost
Value added by retailer
VAT
$\therefore$ Net selling price
Total Tax paid
(ii) Wholesaler's Cost Price
Sales Tax
Solution :(i) Wholesaler's Cost
VAT (8\%)
Total
Value added
VAT
Retailer's cost
Value added by retailer
VAT
$\therefore$ Net selling price
Total Tax paid
(ii) Wholesaler's Cost Price
Sales Tax
Solution :(i) Wholesaler's Cost
VAT (8\%)
Total
Value added
VAT
Retailer's cost
Value added by retailer
VAT
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Total Tax paid
(ii) Wholesaler's Cost Price
Sales Tax
Solution :(i) Wholesaler's Cost
VAT (8\%)
Total
Value added
VAT
Retailer's cost
Value added by retailer
VAT
$\therefore$ Net selling price
Total Tax paid
(ii) Wholesaler's Cost Price
Sales Tax
Solution :(i) Wholesaler's Cost
VAT (8\%)
Total
Value added
VAT
Retailer's cost
Value added by retailer
VAT
$\therefore$ Net selling price
Total Tax paid
(ii) Wholesaler's Cost Price
Sales Tax
Total
Value added
Total

Sales Tax
Total
Value added by retailer
Total $=$ Rs. $(1724+750)$
Sales Tax $=8 \%$ of 2474
Net Selling Price
Total Sales Tax paid
Total
Value added
Total
Sales Tax
Total
Value added by retailer
Total = Rs. $(1724+750)$
$\quad$ Sales Tax $=8 \%$ of 2474

Example 40.23 A wholesaler purchases 15 meters of cloth from the manufacturer @Rs. 80 per meter and sells to the retailer after adding value of Rs. 20 per meter. The retailer sells the cloth and making a profit of Rs. 50 per meter. Calculate how much total tax was paid to the government in the whole transaction, through (i) VAT and (ii) Sales tax method, considering that both taxes were levied @ $8 \%$.

Example 40.24 A manufacturer sold a TV set @Rs. 20,000 to the wholesaler. The wholesaler sells it to a retailer @Rs. 25500 and the retailer finally sells it to the customer @ Rs.31000. If VAT or sales tax whatever is levied is $10 \%$ extra at every stage, calculate the total tax collected by the government through (i) VAT and through (ii) sales tax.

| Solution: (i) Wholesaler's cost Price | $=$ Rs. 20000 |
| :--- | :--- |
| VAT (10\%) | $=$ Rs. 2000 |
| Total | $=$ Rs. 22000 |

## Indirect Taxes

Since, he sells at Rs. 25500, value added = Rs. 3500
$\therefore$ VAT ( $10 \%$ ) = Rs. 350
$\therefore$ Cost of Retailer $=$ Rs. 25850
Retailer sells at Rs. 31000. Therefore, Value added $=$ Rs. 5150
$\therefore$ VAT (10\%)
Hence, total VAT paid

$$
=\text { Rs. } 515
$$

$$
=\text { Rs. }[2000+350+515]
$$

$$
\text { = Rs. } 2865
$$

## (ii) When sales tax is paid

Sales Tax by Manufactures
Sales Tax by Wholesaler
Sales Tax by retailer
$\therefore$ Total Tax
= Rs. 2000
$=$ Rs. $25500 \times 10 \%=$ Rs. 2550
$=$ Rs. $31000 \times 10 \%=$ Rs. 3100
$=$ Rs. $[2000+2550+3100]$
$=$ Rs. 7650
Example 40.25 A firm produces 100 units of an item per day and sells all at the rate of Rs. 20 per unit to the wholesaler. If the Wholesaler added Rs. 500 as his profit and sells to retailer who adds Rs. 1000 while selling, then calculate the total tax collected by the government, through (i) VAT and through (ii) sales tax, if both taxes are levied @ $10 \%$.

Solution : (i) Cost of wholesaler $=$ Rs. $20 \times 100=$ Rs. 2000

| VAT | =Rs. 200 |
| :---: | :---: |
| Total | = Rs. 2200 |
| Value added (by wholesaler) | =Rs. 500 |
| VAT (10\%) | = Rs. 50 |
| Total | = Rs. 2750 |
| Value added by retailer | = Rs. 1000 |
| VAT (10\%) | =Rs. 100 |
| Total | = Rs. 3850 |
| $\therefore$ Total VAT (Tax) | $=$ Rs. $[200+50+100]$ |
|  | = Rs. 350 |
| (ii) If sales tax is paid |  |
| Cost of Wholesaler | = Rs. 2000 |
| Sales Tax | =Rs. 200 |
| Total | = Rs. 2200 |
| Value added (by Wholesaler) | =Rs. 500 |
| Total | = Rs. 2700 |
| $\therefore$ Tax | =Rs. 270 |
| $\therefore$ Total | = Rs. 2970 |
| Value added by retailer | = Rs. 1000 |
| Total | = Rs. 3970 |



## LET USSUM UP

Government has to perform many functions in the discharge of its duties, to meet these requirements they require capital. So, government collects money from the public in the form of fees, fines, surcharge and taxes.
Taxes are the most important sources of revenue.
The income of government through all sources is called public income or public revenue.
Different tiers of government levies different taxes like, Central government levies-income tax, education cess, wealth tax, central excise and customs duty, central sales tax, etc, State government- Sales taxes (Now VAT), state excise duty, entertainment tax, agriculture revenue tax etc. Local bodies- property tax, professional tax, octroi, education cess, etc. Fines are compulsory payments, which are imposed to curb certain offences, and discipline people and fee is also compulsory payment, which are made when a person receives in return a particular benefit or services from the government. Whereas tax is legally compulsory payment levied by the government on the persons or companies to meet the expenditure incurred on conferring common benefits upon the people of a country.
Direct taxes are those taxes whose burden cannot be shifted to others and the person who pays it to the government has to bear it. Indirect taxes are those whose burden can be shifted to others so that those who pay these taxes to the government do not bear the whole burden but pass it on wholly or partly to others.
Excise duty can only be levied on those items which are manufactured in India (excluding goods produced or manufactured in special economic zones).
Generally $16 \%$ of excise duty and $2 \%$ cess are imposed on most of the all goods, except few exceptions like in textile sector. In certain cases government can fix different tariff values for different classes.

## Indirect Taxes

- In case of delayed payment, interest should also be deposited at the rate of $13 \%$ p.m or Rs 1,000 per day for the period of delay after 5th or 15th as the case may be, whichever is higher, along with the duty.
- Exemptions: Central excise rules grant exemption from duty if goods are exported under bond, except exports to Nepal and Bhutan. Similarly, goods manufactured in special economic zones (SEZ) are not excisable goods and hence no excise duty can be levied on goods manufactured.
- Tax imposed by the government on the import and export of items (goods) is called customs duty.
- Tax paid by the consumer on the purchase of some items is called sales tax.
- VAT will replace the present sales tax in India. Under the current single-point system of tax levy, the manufacturer or importer of goods into a State is liable to sales tax. There is no sales tax on the further distribution channel. VAT, in simple terms, is a multi-point levy on each of the entities in the supply chain with the facility of set-off of input tax i.e. the tax paid at the stage of purchase of goods by a trader and on purchase of raw materials by a manufacturer.
- RATES OF VAT: There are four slabs of VAT imposed on the different goods, i.e. $1 \%, 4 \%, 12.5 \%$, and $20 \%$.
- TAX CREDIT: A dealer who is registered shall be entitled to a tax credit in respect of the turnover of purchases occurring during the tax period where the purchase arises in the course of his activities as a dealer and the goods are to be used by him directly or indirectly for the purpose of making sale.
- NET TAX: The net tax payable by a dealer for a tax period shall be determined by the formula:

$$
\text { Net tax }=O-I-C \text { where }
$$

$\mathrm{O}=$ the amount of tax payable by the person at rates stipulated in respect of the taxable turnover arising in the tax period.
$I=\quad$ the amount of the tax credit arising in the tax period to which the person is entitled for adjustment to the tax credit required by this Act.
$\mathrm{C}=$ the amount if any brought forward from the previous tax period.

- If same rate of sales tax and VAT are imposed on the goods whose cost price is same then in case of sales tax, government collects more than in the case of VAT. However the coverage from VAT is more because in VAT there is very little chances of tax evasion.

SUPPORTIVE WEB SITES

- http://www.wikipedia.org
- http://www.dvat.gov.in

OPTIONAL - II Mathematics for Commerce, Economics and Business


## TERMINAL EXERCISE

1. A garments Company manufactures 20 quilts per day and uses cotton fiber (Rs. 100 per kg ) and cotton cloth (Rs. 50 per meter) as input. In making one quilt 2 kgs of cotton fibre and 5 meters of cloth are used. If excise duty on cotton fiber is $8 \%$ and on cloth it is $10 \%$ while on quilt it is $12 \%$, calculate the total duty paid to the government when the value added by the Company is Rs. 109 per quilt, if the transaction is (i) without Cenvat (ii) with Cenvat.
2. Mittal and Company produces steel utensils at the rate of 500 kgs per day after using inputs of Rs. 25,000 . The excise duty is $16 \%$ with $2 \%$ education cess. If the duty is paid 12 days after the due date, calculate the amount of penalty to be paid.
3. A computer dealer sells computer at Rs. 15,000 and he purchases the same computer at Rs 10,500 . VAT levied on computers is @ $8 \%$ but he gets rebate @ $2 \%$.Calculate how much VAT he has to pay and how much is the total collection of VAT by the government.
4. A wholesaler purchases 50 meters of cloth from the manufacturer @Rs. 80 per meter and sells to the retailer after adding value of Rs. 20 per meter. The retailer sells the cloth and making a profit of Rs. 50 per meter. Calculate how much total tax was paid to the government in the whole transaction, through (i) VAT and (ii) Sales tax method, considering that both taxes were levied @ $8 \%$.

## CHECK YOUR PROGRESS 40.1

1. Rs. $12,826.26$
2. Rs. 4500
3. Rs. 30,000
4. Rs. $1,92,000$
5. Rs. $5,16,000$

## CHECK YOUR PROGRESS 40.2

1. Rs. 33,915
2. Rs. 913
3. Rs. 4590 Crores
4. Rs. $5,76,810$

## CHECK YOUR PROGRESS 40.3

1. Rs. 9,620
2. Rs. 500
3. $8 \%$; Rs. 1200
4. Rs. 15,000
5. $10 \%$
6. Rs. 1,000

## CHECK YOUR PROGRESS 40.4

1. (i) Rs. 493
(ii) Rs. 282
2. Rs. 61.50

## TERMINAL EXERCISE

1. 

(i) Rs. 67,800 (ii) Rs. 40,248
2. Rs. 10,000
3. Rs. 255 (rounded off )
4. (i) Rs. 580 (ii) Rs. 1405

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Notes
2. Rs. 61.50

