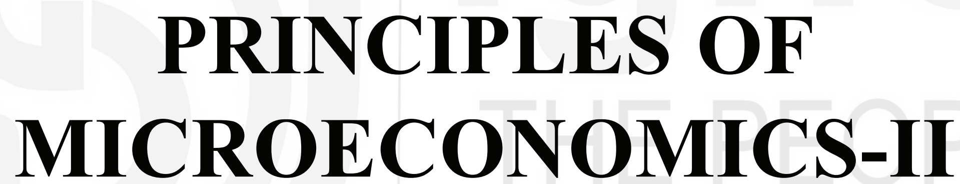
ignou
THE PEOPLE'S
UNIVERSITY

BECC-132



PRINCIPLES OF MICROECONOMICS-II

School of Social Sciences
Indira Gandhi National Open University

EXPERT COMMITTEE

Prof. Indrani Roy Choudhary
Associate Professor
Jawaharlal Nehru University
New Delhi

Prof. S.K.Singh
Rtd. Professor of Economics
IGNOU, New Delhi

Prof. G.Pradhan
Rtd Professor of Economics
IGNOU, Maidan Garhi, New Delhi

Dr. S.P. Sharma
Associate Professor, Economics
Shyam Lal College
University of Delhi, Delhi

Shri. B.S. Bagla
Associate Professor of Economics
PGDAV College
University of Delhi, Delhi

Ms. Niti Arora
Assistant Professor
Mata Sundri College
University of Delhi, Delhi

Shri Saugato Sen
Associate Professor of Economics
IGNOU, New Delhi

Prof. Narayan Prasad
Professor of Economics
IGNOU, New Delhi

Course Coordinator : Prof. Narayan Prasad

COURSE PREPARATION TEAM

Block 1	**Introduction**	
Unit 1	Perfect Competition: Firm and Industry Equilibrium	Dr. S.P. Sharma, Associate Professor of Economics, Shyam Lal College, University of Delhi, Delhi
Unit 2	Monopoly: Price and Output Decisions	Ms. Shruti Jain, Assistant Professor of Economics, Mata Sundari College, University of Delhi, Delhi
Unit 3	Monopolistic Competition: Price and Output Decision	
Unit 4	Oligopoly: Price and Output Decision	
Block 2	**Factor Market**	
Unit 5	Factor Market and Pricing Decisions	Dr. Nausheen Nizami, Assistant Professor of Economics, Pt. Deen Dayal Upadhyay Petrolium University, Ahemdabad
Unit 6	Labour Market	
Unit 7	Land Market	
Block 3	**Welfare, Market Falure and the Role of Government**	
Unit 8	Welfare: Allocative Efficiency under perfect Competition	Dr. S.P. Sharma, Associate Professor of Economics, Shyam Lal College, University of Delhi, Delhi
Unit 9	Efficiency of the Market Mechanism: Market Failure and the Role of the State	Dr. Mamta Mehar, Post Doctoral Fellow, Value Chain and Nutrition Programme, World Fish, Malaysia
Block 4	**International Trade**	
Unit 10	Theories of International Trade	Dr. Rahul Chaudhary Consultant, IGNOU, New Delhi
Unit 11	WTO and India's Trade Policy	Mr. Vishnu Gupta, Assistant Professor in Economics, PGDAV Collage, New Delhi

General Editors (Content, Format and Language) : Prof. Narayan Prasad and Shri B.S. Bagla

Print Production | **Secretarial Assistance/Graphics**

Mr. Tilak Raj
Assistant Registrar (Publication)
MPDD, IGNOU, New Delhi

Mr. Yashpal
Secton Officer (Publication)
MPDD, IGNOU, New Delhi

Ms. Kamini Dogra
Stenographer, SOSS
IGNOU, New Delhi

December, 2019

© *Indira Gandhi National Open University, 2019*

ISBN : 978-93-89200-04-1

All rights reserved. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from the Indira Gandhi National Open University.

Further information on Indira Gandhi National Open University courses may be obtained from the University's office at Maidan Garhi, New Delhi-110 068 or visit University's Website http://www.ignou.ac.in.

Printed and published on behalf of the Indira Gandhi National Open University, New Delhi by Registrar, MPDD, IGNOU.

Lasertypesetted at Graphic Printers, 204, Pankaj Tower, Mayur Vihar, Phase-I, Delhi-110091.

Printed at : A-One Offset Printers, 5/34, Kirti Nagar Industrial Area, New Delhi - 110015

Course Contents

BLOCK 1	MARKET STRUCTURE	Pages
UNIT 1	Perfect Competition: Firm and Industry Equilibrium	5
UNIT 2	Monopoly: Price and Output Decisions	23
UNIT 3	Monopolistic Competition: Price and Output Decisions	45
UNIT 4	Oligopoly: Price and Output Decisions	63
BLOCK 2	**FACTOR MARKET**	
UNIT 5	Factor Market and Pricing Decisions	89
UNIT 6	Labour Market	104
UNIT 7	Land Market	117
BLOCK 3	**WELFARE, MARKET FAILURE AND THE ROLE OF GOVERNMENT**	
UNIT 8	Welfare: Allocative Efficiency under Perfect Competition	131
UNIT 9	Efficiency of the Market Mechanism: Market Failure and Role of the State	145
BLOCK 4	**INTERNATIONAL TRADE**	
UNIT 10	Theories of International Trade	157
UNIT 11	WTO and India's Trade Policy	168
GLOSSARY		181
SOME USEFUL BOOKS		180

INTRODUCTION TO PRINCIPLES OF MICROECONOMICS-II

Economics is a live subject and helps the economic agents in their decision making like: Which commodities to produce? How to produce? Which techniques to use? Which factors or resources to use, in which combinations to produce and What quantity of a commodity? How consumers make purchasing decisions and how their choices are affected by changing prices and incomes? How firms decide how many workers to hire and how do workers decide where to work and how much work to do? In other words, economics has moved away from financing the activities of state to helping the common man in the street to make many a crucial decisions impinging on their day-to-day life.

We, today incorporate a wide spectrum of activities in the domain of economics. These activities include: (a) consumer's behaviour or choice process; (b) producers' behaviour or how is the production organised and carried on, what is the special role of cost functions? (c) What are the different forms of market organisations; (d) how different individuals co-operate in the process of production to contribute factors owned by them. (e) What are the various types of efficiencies? (f) Under what situations markets fail and how the state can play its role in such situations? Issues pertaining to (a) and (b) have been covered in the course on Principles of Microeconomics - I. The present course on principles of Micro Economics - II aims to expose the learners to the issues pertaining to (c) to (f). The course is divided into four blocks.

Block 1 throws light on the various forms of market i.e. perfect competition, monopoly, monopolistic competition, and oligopoly. This block comprises 4 units. **Unit 1** on **Perfect Competition: Firm and Industry Equilibrium** provides the characteristics of perfectly competitive market and exposes the learners to equilibrium of Firm and Industry under perfect competition. **Unit 2** on **Monopoly: Price and Output Decision** deals with pricing and output decisions and price discrimination under monopoly condition. The concept of deadweight loss under monopoly has also be discussed in this unit. The equilibrium conditions of monopolistic competition in short-run and long-run period, theory of excess capacity, the comparison of the various market forms have been provided in **Unit 3**. Price and Output determination under oligopoly have been covered in **Unit 4.**

Block 2 discuses the Pricing of the factors of production. It comprises three units. Introducing the Marginal Productivity theory of distribution, **Unit 5** provides an overview of how rent and wages are determined. It also provides a bird's eye view on the theories of interest and profit. **Unit 6** acquaints the learners of the role of demand and supply mechanisms in determinations of wages under perfectly competitive labour markets and imperfectly competitive labour markets. It also provides the role of labour unions and explanation of wage differentials. **Unit 7** throws light on features of land as a peculiar factor of production and the various theories of rent.

Block 3 covers the Welfare Market failure and the role of state. This block comprises two units. **Unit 8** exposes the learners to the various forms of efficiencies under perfectly competitive market economy and the outcome of departures from the assumptions of perfectly competitive market conditions. **Unit 9** highlights the various situations where markets fail and hence the role of state comes into picture.

Block 4 deals with the issues related to international trade. This block comprises two units. **Unit 10** gives an overview of the various theories of International trade. **Unit 11** touches upon the various issues related to trade policy and World Trade Organisation.

BLOCK 4 INTERNATIONAL TRADE

ignou
THE PEOPLE'S
UNIVERSITY

BLOCK 4 INTERNATIONAL TRADE

Block 4 focuses on two basic issues: i) why does trade take place between two or more countries, and (ii) what are the salient features of WTO and how it has affected India's trade policy? The block comprises of two units.

Unit 10 gives an overview of the various theories of International trade. **Unit 11** touches upon the various issues related to trade policy and World Trade Organisation.

ignou
THE PEOPLE'S
UNIVERSITY

UNIT 10 THEORIES OF INTERNATIONAL TRADE

Structure

10.0 Objectives

10.1 Introduction

10.2 Theory of Mercantilism

10.3 Absolute Advantage Theory

10.4 Comparative Advantage Theory

10.5 Heckscher–Ohlin Theory

10.6 Let Us Sum Up

10.7 References

10.8 Answers or Hints to Check Your Progress Exercises

10.0 OBJECTIVES

After going through this unit, you shall be able to:

- explain the difference between Domestic and International Trade;
- explain why two nations trade with each other;
- discuss Absolute Advantage Theory;
- explain Comparative Advantage Theory;
- point out the difference between Absolute Advantage Theory and Comparative Advantage Theory; and
- discuss Heckscher–Ohlin Theory.

10.1 INTRODUCTION

Simplest reason for trade is that every nation cannot produce everything. Yet, when they could produce say both X & Y, would it still be in their mutual interest to trade?

Classical economists basically assumed that one nation will trade with another only if there were differences in costs of production of say two goods X & Y in the trading partners A and B.

If A could make X at a lower cost compare to the cost in B, and B could make Y at a lower cost, it would be in the interests of both A and B to export its commodity with lower cost of production and import the one whose domestic cost was higher than the cost in the other country. This way both A and B could benefit from lower costs of production.

Dr. Rahul Chaudhary, Consultant, IGNOU, New Delhi.

The present unit has tried to explain the two notions of "lower" cost of production, the idea of Absolute Advantage in Section 10.3 and that of Relative (comparative) Advantage in Section 10.4. Both Smith and Recardo had implied complete specialisation in the two trading partners. But we find that both these classical theories [based on labour theory of value] still leave something to 'explain'. For one thing, both the theories assumed that both trading partners had "same" size and identical demand patterns. What happens, if two countries have vast differences in factor endowments? One has more abundant labour while the other is rich in capital?

Similar demand/consumption preferences and access to technology will induce such societies to choose different production patterns. Such behaviour, on being opened to trade, creates different situations and opportunities. Hecksher Ohlin theory in Section 10.5, tries to analyse such a scenario. We have kept the treatment simpler but brought together pre and post-trade, production and consumption situations and also indicated the tendency towards equalisation of factor price ratios (though a detailed description of that is left for a higher level course in International Economics).

This theory also leaves scope for trade between two countries which are vastly different in size — say India and Bhutan. There may be complete specialisation in smaller economy, but even while trading, bigger trading partner may retain a significant import competing industry to meet the total domestic demand for that product.

10.2 THEORY OF MERCANTILISM

Mercantilism is an intellectual School of thought more than 500 years old. The base of this theory was the "commercial revolution", the transition from local economies to national economies, from feudalism to capitalism, from a rudimentary trade to a larger international trade.

The theory of mercantilism postulates that countries should encourage exports and discourage imports. The tendency to export more and import less and to receive gold (as gold was the medium of exchange) in exchange is called MERCANTILISM. Mercantilism was the economic system of the major trading nations during the 16th to 18th century. The theory assumed that, national wealth and power were best served by increasing exports and collecting precious metals like gold in return. The theory states that, government should play vital role in regulating the economy to encourage export and discourage import by using subsidies and taxes, respectively. According to this theory, government should accumulate as much gold as possible and it can be done only through export.

Check Your Progress 1

Write your answers in the space given below:

1) Explain the difference between Domestic and International Trade.

....

....

....

2) State the Central tenet of Mercantilism.

....

....

....

10.3 ABSOLUTE ADVANTAGE THEORY

Since the times of Mercantilists, a number of theories explaining the trade between the nations have been developed. Some of these theories have been around for more than 200 years. The very basic theory of international trade was propounded by Adam Smith in 1776. Adam Smith in his seminal work 'Nature and Causes of the Wealth of the Nation', first time provided theoretical explanation why trade should take place between two nations.

Adam Smith in "the Wealth of the Nations" propounded the theory of absolute advantage, which states that a country should specialise in those products, which it can produce efficiently, measured in terms of absolute labour costs. This theory assumes that there is only one factor of production that is labour. In that age, labour was usually regarded as the only factor of production. The prices of goods were regarded as value of labour 'embedded' in those goods.

Adam Smith wrote in The Wealth of Nations, "If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage".

According to Smith, trade between two nations is based on absolute cost advantage. When one is more efficient than (or has an absolute advantage over) the other in the production of one commodity but is less efficient than (or has an absolute disadvantage with respect to) the other nation in producing a second commodity, then both the nations can gain, by each specialising in production of the commodity of its absolute advantage and exchanging part of its output with the other nation for the commodity of its absolute disadvantage. In this process, the resources are utilised in most efficient way and the output of both commodities will rise. This increase in output of both the commodities measures the Gains from specialisation in production available to be divided between the two nations through trade.

In very simple words, he stated that trade would be beneficial for both the countries if country A exports the goods, which it can produce with lower cost than country B and import the goods, which country B can produce with lower cost than it.

The above description of the theory can be understood better with the following example. Suppose there are two countries A and B, which produce wheat and rice with equal amount of resources, that is, 200 laborers. Country A uses 10 labourers to produce 1 ton of wheat and 20 labourers to produce 1 ton of rice. Country B uses 25 labourers to produce 1 ton of wheat and 5 labourers to produce 1 ton of rice.

This is evident from Table 10.1 that country A has absolute advantage in producing wheat as it can produce 1 ton of wheat by using less labourers as

Table 10.1: Labourers used by the two countries to produce a ton of wheat and rice

	Country A (No)	Country B (No)
Wheat	10	25
Rice	20	5

compared to country B. On the other hand, country B has absolute advantage in producing rice as it can produce 1 ton of rice by employing less labourers in comparison to country A. Now, if there is no trade between these countries and resources (in this case there are total 200 labourers) are being used equally to produce wheat and rice, country A would produce 10 tons of wheat (100/10) and 5 tons of rice (100/20) and country B would produce 4 tons of wheat (100/25) and 20 tons of rice (100/5). Thus, total production without trade (i.e., autarky) is 39 tons (14 tons of wheat and 25 tons of rice).

Table 10.2: Production volume of wheat and rice without the trade

	Country A (in Tons)	Country B (in Tons)
Wheat	10	4
Rice	5	20

Now, if both the countries open up to trade with each other and specialise in goods in which they have absolute advantage, the total production would be higher. If trade takes place, Country A would produce 20 tons of wheat with 200 units of labourers; whereas, country B would produce 40 tons of rice with 200 units of labourers. Thus, total production would be 60 units (20 tons of wheat and 40 tons of rice).

Table 10.3: Production volume of wheat and rice with trade

	Country A (in Tons)	Country B (in Tons)
Wheat	20	0
Rice	0	40

It is clear from the above descriptive example that without specialisation, total production of countries was 39 tons which increased to 60 tons after specialisation from trade opportunities. This is the welfare gains from trade. Therefore, the theory of absolute advantages shows that pattern of trade based on absolute cost differences would be beneficial for both the countries.

10.4 COMPARATIVE ADVANTAGE THEORY

Elabourating the theory of absolute advantage, David Ricardo a student of Adam Smith, presented his work in 1817 in his book 'Principles of Political Economy and Taxation'. In this book he presented the law of comparative advantage. This is one of the most important and still unchallenged laws of economics with many practical applications. The Ricardian theory states that trade can be beneficial for two countries even if one country has absolute advantage in all the products and the other country has no absolute advantage in any of the products. Ricardo argued that, "…a nation, like a person, gains from the trade by exporting the goods or services in which it has its greatest

comparative advantage in productivity and importing those in which it has the least comparative advantage." The first nation would be better-off provided it specialises in the production and export of those commodity in which its absolute disadvantage is smaller (this is the commodity of its comparative advantage) and import the commodity in which it's absolute disadvantage is greater (this is the commodity of its comparative disadvantage).

This theory too assumes that labour as the only factor of production in two countries, zero transport cost, and no trade barriers within the countries. This theory can be understood better from the example cited in the Table 10.4.

Suppose there are two countries A and B, producing two commodities wheat and rice with labour as the only factor of production. Now assume that both the countries have 200 labourers and they use 100 labourers to produce wheat and 100 labourers to produce rice.

Table 10.4: Production of wheat and rice by Country A and B before trade

	Country A	Country B
Wheat	20	15
Rice	40	10

Table 11.4 shows that country A can produce 20 units; whereas, country B can produce 15 units of wheat by employing same number (100) of labourers. In addition, country A can produce 40 units; whereas, country' B can produce 10 units of rice by employing 100 labourers.

Thus, country A has absolute advantage in producing both the items. Country A employs same number of labourers (100 labourers in production of each item) in producing rice and wheat; however, the production of rice is higher than the production of wheat. This reveals that country A has comparative advantage in producing rice. Similarly, country B also employs same number of labourers (100 labourers in production of each good) in manufacturing wheat and rice; but, its production of wheat is more than the rice. It indicates that country B has comparative advantage in producing wheat.

For example, country A has decided to produce 60 units of rice by employing 150 labourers. It uses 50 labourers to produce 10 units of wheat. On the other hand, country B has decided to use all the 200 labourers to produce 30 units of wheat and stop the production of rice (Table 10.5). In this situation country A exchanges 14 units of rice with 14 units of wheat produced by country B. (see Table 10.6).

Table 10.5: Production after specialisation

	Country A	Country B
Wheat	10	30
Rice	60	0

Table 10.6: Situation after trade takes place

	Country A	Country B
Wheat	24	16
Rice	46	14

It can be seen clearly from Table 10.6 that both the countries have been benefitted or gained from trade. Before specialisation in trade, country A has only 20 units of wheat and 40 units of rice; while, after trade, country A has 24 units of wheat and 46 units of rice.

At the same time country B has 15 units of wheat and 10 units of rice before trade, has 16 units of wheat and 14 units of rice after trade. Therefore, comparative advantage theory clarifies that trade can create benefit for both the participating countries even if one country has absolute advantage in the production of both the commodities.

Check Your Progress 2

1) State the main propositions of the comparative advantage theory.

....

....

....

2) Differentiate between Adam Smith and Ricardo's theory of international trade.

....

....

....

3) How do nations gain from trade with reference to Ricardian theory of international trade?

....

....

....

10.5 HECKSCHER – OHLIN THEOREM

The Modern Theory of international trade has been propounded by Bertil Ohlin. Ohlin has drawn his ideas from Eli Heckscher's General Equilibrium Analysis. Hence it is also known as Heckscher–Ohlin (H-O) Theory.

Heckscher – Ohlin theory begins where the Ricardian theory of international trade ends. The Ricardian theory states that the basis of international trade is the comparative or relative cost differences. But he did not explain how this comparative costs difference emerges. Ohlin's theory explains the real cause of this difference.

Ohlin states that trade takes place due to the different relative prices of different goods in different countries. The difference in relative price of a commodity is due to differences in the relative costs and factor prices in different countries.

According to the H-O theory, the differences in factor prices are due to differences in factor endowments in different countries. That is the pattern of trade is explained in terms of differences in relative factor endowments, i.e., the relative resource supply in an economy. Ohlin's theory is, therefore, also described as the factor endowment theory. Ohlin's theory is usually expounded

in terms of a two-factor model with labour and capital as the two factors of production. Trade occurs due to the differences in factor endowments. Some countries have plenty of capital; while others have an abundance of labour. The Heckscher – Ohlin theorem postulates that countries which are rich in labour will export labour intensive goods and countries which have plenty of capital will export capital-intensive products.

Heckscher–Ohlin's theory explains the modern approach to international trade on the basis of following assumptions:-

1) There are two countries involved, country A and B
2) There are two factors of production, labour and capital.
3) There are two goods; X and Y of which X is labour-intensive and Y is capital-intensive.
4) Country A is labour-abundant and country B is capital-rich.
5) There is perfect competition in both the commodities and factor markets, in both the commodities.
6) All production functions are homogeneous of the first degree. Hence there are constant returns to the scale.
7) There are no transport costs or other impediments to trade in commodities, but factors do not move.
8) Demand conditions are identical in both the countries.

These assumptions have been made to explain the meaning of comparative price advantage or relative price difference and to deduce the major propositions of the factor endowment theory. Given these assumptions, Ohlin's thesis contends that, country exports goods which use relatively a greater proportion of its relatively abundant and, thus, cheap factor. It is implied that trade occurs because there are differences in relative commodity prices caused by differences in relative factor prices (thus a comparative advantage) as a result of differences in the factor endowments among the countries.

In the two countries, two commodities and two factor model, implies that the capital rich country will export capital intensive commodity and the labour rich country will export labour intensive commodity. But the concept of country being rich in one factor or other is not very clear. Economists quite often define factor abundance in terms of factor prices. Ohlin himself has followed this approach. (Alternatively factor abundance can be defined in physical terms. In this case, physical amounts of capital and Labour are to be compared).

The Price Criterion of Relative Factor Abundance

According to the price criterion, a country having relatively cheap capital and relatively dear labour is regarded as relatively capital-abundant, irrespective of its ratio of total quantities of capital to labour in comparison with the other country. In symbolic terms, when:

$$(P_K/P_L)_A < (P_K/P_L)_B$$

Country A is relatively capital-abundant. (Here P stands for factor price and K for capital, L for labour, for the two respective countries.) Ohlin's theorem may be verified diagrammatically in Fig. 10.1.

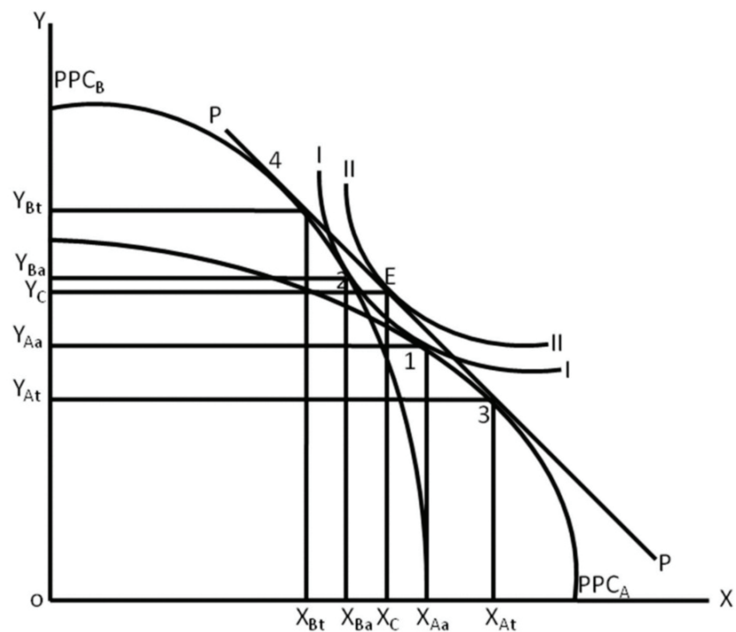


Fig. 10.1

We are explaining essence of H.O theory with help of Fig. 10.1. We began with autarky the situation of 'no-trade' Country A is labour abundant. It uses labour more intensively in production of both X and Y. It produces at point 1 on its PPC_A, produces and consumes (X_{Aa}, Y_{Aa}) bundle and is on indifference curve I,I.

The country B has abundance of capital. So it uses capital more intensively in both the industries. It produces at point 2 on its PPC_B and consumes the same bundle, (X_{Ba}, Y_{Ba}), and remains on the same indifference curve I,I.

We are still assuming the two countries to have access to similar technologies and to have similar preference structure, summed up by common indifference curve.

The internal price ratios will be different, as slopes of their PPCs and that of indifference curves II, at points of tangency 1 and 2 are different.

However, if we open up A & B to international trade, an international price line PP will help them optimise their production and consumption decisions. The price line PP is tangent to PPC_A at point 3 and to PPC_B at point 4. This implies that given the trade, A will produce (X_{At}, Y_{At}) and B will produce (X_{Bt}, Y_{Bt}) bundles respectively.

However, consumption wise, point E- the point of tangency between PP and common indifference curve II, II will be the preferred point for both A & B.

Notice that point E is outside PPC_A and PPC_B. It was earlier not attainable for either of the countries. But trade has made it possible for both A & B to look beyond their PPC_s.

Now, A produces larger output of X that is $X_{At} > X_{Aa}$, it has reduced its production of Y as $Y_{At} < Y_{Aa}$, on the other hand, B has increased production of Y, $Y_{Bt} > Y_{Ba}$ and reduced that of X as $X_{Bt} < X_{Ba}$.

But, now A exports ($X_{At} - X_C$) to B and imports ($Y_C - Y_{At}$) from that country. You can straight away see that B is doing just the reverse.

ignou THE PEOPLE'S UNIVERSITY

We have shown (X_C, Y_C) as consumption bundles for both A & B as they still have the similar preference structures.

Now, what have we achieved? The above description has brought home the following points:

i) In the absence of trade, both countries try to use their natural advantage – the abundant resource more intensively in production of both the goods. This makes PPC_A biased towards good X and likewise, PPC_B will be biased towards good Y.

ii) They will have different commodity price ratios, which are consistent with ratios of MRPs of the two factors, in their domestic territories. Even the access to same technology makes them produce X and Y in different quantities, using different labour capital ratios.

iii) Opening up for trade encourages them to push their respective endowment based natural advantages still further. A find easier to expand industry X, while B expands industry Y, as they optimise their production in response to exposure to international price ratio, given by slope of PP.

iv) This international price ratio makes it possible for them to consume the bundle which is different form the ones being produced by them.

v) Notice that the common consumption bundle E lies on a higher common indifference curve II,II.

A direct implication is that both the trading partners are "better off" compared to autarky or "no trade" situations. This is the proof of gains from trade.

As Ricardian framework of comparative advantage was further improved upon in the Heckscher–Ohlin model, similarly, the H-O model was further developed by Paul Samuelson. Hence the extension of H-O model is also referred as Heckscher–Ohlin–Samuelson (H-O-S) model. H-O model states that trade takes place due to the different relative price of different goods in different countries. Heckscher–Ohlin–Samuelson model demonstrates how free movements of goods between countries may bring about the factor price equalisation.

There are four main theorems in the H-O-S model.

1) The Heckscher–Ohlin theorem

2) The Stolper–Samuelson theorem

3) The Factor Price Equalisation theorem

4) The Rybczynski theorem

But we are not discussing the theories (2) to (4) here. Their detailed treatment is left for higher level course in International Economics.

Check Your Progress 3

1) State five major assumptions of Heckscher–Ohlin theory.

....

....

....

2) Explain the term relative factor abundance?

....

....

....

3) What are the extensions of the Heckscher–Ohlin theory?

....

....

....

....

....

10.6 LET US SUM UP

In the context of theories of International trade, two important questions arise: Why does trade take place? And how does trade take place? According to Adam Smith, trade between two nations takes place because of absolute cost advantage. Trade would be beneficial for both the countries if county A exports the goods, which it can produce with lower cost than country B and import the goods, which country B can produce with lower cost than it. According to Ricardo, trade between two nations takes place because of comparative advantage which means a nation will export the goods and services in which it has greatest advantages in productivity and will import those in which it has the least comparative disadvantage.

Modern theory of International trade propounded by Hecksher–Ohlin, finds differences in factor prices as basis for international trade between two nations which in turn is ascribed to differences in factor on endowments in different countries. There are four extensions of Hecksher–Ohlin theory of international trade.

10.7 REFERENCES

1) Sodersten, B. and Reed, G. (1994), *International Economics*, 3rd Ed., Macmillan London.

2) Salvatore, D. John (2004), *International Economics*, 8 th Ed., Wiley and Sons, Inc. New Jersey.

3) Krugman, Paul R. and Maurice Obstfeld, (19970, International Economics: Theory and Policy, 4th Ed., Addison-Wesley, Massachusetts, USA.

4) Krugman, Paul R. and Maurice Obstfeld, Marc J. Melitz (2012), *International Economics: Theory & Policy*, Ninth Edition, Pearson, USA.

5) James Gerber (2014), *International Economics*, SIXTH EDITION, Pearson, USA.

6) Dominick Salvatore (2014), *International Economics*, Eleventh Edition, Wiley, USA

10.8 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1) Read Section 10.1 and answer.

2) Read Section 10.1 and answer.

Check Your Progress 2

1) Read Section 10.4 and answer.

2) Read Section 10.3 and 10.4 and answer.

3) Read Section 10.4 and answer.

Check Your Progress 3

1) Read Section 10. 5 and answer.

2) Read Section 10.5 and answer.

3) Read Section 10.5 and answer.

UNIT 11 WTO AND INDIA'S TRADE POLICY

Structure

11.0 Objectives

11.1 Introduction

11.2 Origin of WTO

11.3 Objectives of WTO

11.4 Structure of WTO

11.5 Trade Agreements

11.5.1 General agreements on Trade in Services (GATS)

11.5.1.1 General Principles of GATS

11.5.2 Trade Related Investment Measures (TRIMs)

11.5.3 Trade in agriculture

11.5.4 Trade in Textiles and Clothing

11.5.5 Trade Related Intellectual Property Rights (TRIPs)

11.5.6 Dispute Settlement

11.6 WTO and India

11.7 Let Us Sum UP

11.8 References

11.9 Answers or Hints to Check Your Progress Exercises

11.10 Review Questions`

11.0 OBJECTIVES

After going through the unit, you should be able to:

- answer what is World Trade Organisation (WTO);
- appreciate evolution of World Trade Organisation (WTO) from General Agreement on Tariffs and Trade (GATT) ;
- sate the objectives of WTO;
- discuss the different trade agreements under WTO; and
- identify the impacts of WTO on Indian Economy.

11.1 INTRODUCTION

The World Trade Organisation (WTO) is the only global international organisation which facilitates the free flow of goods and services across the world by setting the rules of trade among nations. It came into existence on 1stJanuary 1995 as the result of the 8th round of GATT negotiations called the Uruguay round, replacing the GATT agreement. As a global organisation, it

Mr. Vishnu Gupta, Assistant Professor in Economics, PGDAV College, New Delhi.

has 164 member nations and 22 observer states. (Afghanistan, being the newest member, who joined the WTO in early 2016 as 164th member). It was established mainly with the same goal as that of the GATT agreement, but has more powers than its predecessor. WTO has wider responsibilities of setting new rules of trading goods and services, international investments and protection of intellectual property rights. The basic objective of WTO is to increase the global income as a result of increased trade and the overall enhancement of the prosperity levels of the member states.

11.2 ORIGIN OF WTO

The Bretton Woods Conference, officially known as the United Nations Monetary and Financial Conference, was a gathering of delegates from 44 nations that met from July 1 to 22, 1944 in Bretton Woods. Three major creations of the conference were:

1) International Monetary Fund (IMF)
2) International Bank for Reconstruction and Development (IBRD), popularly known as The World Bank.
3) International Trade Organisation.

International Monetary Fund (IMF) and International Bank for Reconstruction and Development (IBRD) come into force in December 1947, but, The international trade organisation could not come into existence as its charter was never approved by the Senate of United States of America.

The General Agreements on Tariffs and Trade (GATT) came into existence in Geneva in 1947. Twenty three countries including India were the founder members of GATT. GATT was not an official origination which could enforce the decision. It was just an agreement between member countries that were involved in international trade.

The main purpose of GATT was to reduce tariffs and non-tariff barriers from world trade and ensure competition by reducing barriers and eliminating discrimination in international trade. The aims of GATT were: Expansion of the volume of international trade, Increase in world production and productivity, Development and Full Utilisation of the Resources, and Improve standard of living of the world community as a whole.

GATT is based on the following fundamental principles

1) Trade should be conducted in a non-discriminatory way
2) Eliminations of non-tariff barriers
3) Disagreements should be resolved through consultations.

As per its mandate, GATT progressed and expanded its scope in terms of areas covered by a series of trade rounds. Eight such rounds of negotiations were held under GATT (Table 11.1).

Table 11.1: The Negotiating Rounds of GATT and the World Trade Organisation

Year	Place or Name of Round	Main Subjects	Number of Countries Involved
1947	Geneva	Tariff reduction	23
1949	Annecy	Tariff reduction	13
1951	Torquay	Tariff reduction	38
1956	Geneva	Tariff reduction	26
1960–61	Dillon round	Tariff reduction	26
1964–67	Kennedy round	Tariffs, anti-dumping measures	62
1973–79	Tokyo round	Tariffs, nontariff barriers	102
1986–94	Uruguay round	Tariffs, nontariff barriers, services, intellectual property, dispute settlement, textiles, agriculture, creation of WTO	123
2001–	Doha round	Agriculture, services, intellectual property, competition, investment, environment, dispute settlement	147

After the eighth round meeting of GATT in Uruguay, 123 member countries agreed to establish a trade organisation. As a result, WTO was established on 1 Jan. 1995 and it's headquarter was set up in Geneva, Switzerland, Doha Development round (2001) was the first round under the WTO.

One significant feature of WTO treaty is its self-executive nature. Its provisions over-ride any national legislations which are contrary to WTO charter.

11.3 OBJECTIVES OF WTO

Important objectives of WTO are to:

i) implement the new world trade system as visualised in the Agreement;

ii) promote World Trade in a manner that benefits every country;

iii) ensure that developing countries secure a better balance in sharing of the advantages resulting from the expansion of international trade corresponding to their developmental needs;

iv) demolish all hurdles to an open world trading system and usher in international economic renaissance because the world trade is an effective instrument to faster economic growth;

v) enhance competitiveness among all trading partners so as to benefit consumers and help in global integration;

vi) increase the level of production and productivity with a view to ensure high level of employment in the world;

vii) expand and utilise world resources to the best;

viii) improve the level of living for the global population and speed up economic development of the member nations.

Guiding Principles of WTO are as follows:

- Non Discriminatory and rule based trading system where foreign goods and services should receive the same treatment as domestic goods.
- Trade Barriers (tariffs and non-tariff barriers) should be dismantled and international trade should be free.
- Less Developed countries should receive preferential terms of trade.

11.4 STRUCTURE OF WTO

WTO is not an agency of UNO like IMF and World Bank. It has its independent status as it acts autonomously at the behest of its membership. It is democratic in nature as it follows "one country one vote" principle.

Organisational structure of WTO consists of 4 different levels, listed as follows:

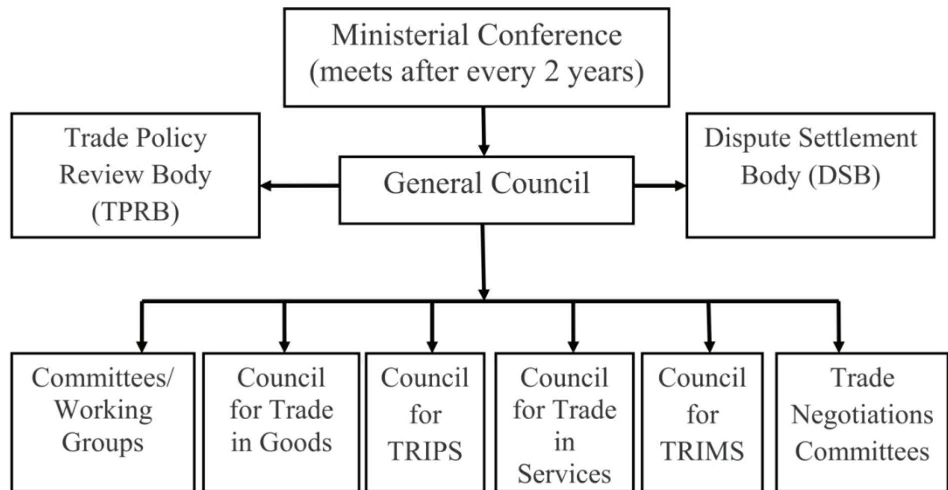
Level 1 - Ministerial Conference (MC) is at the apex of the structural organisation of the WTO. It is the supreme forum which takes ultimate decisions on multilateral trade Agreements (MTA). Ministerial Conference (MC) meets at least once in every two year.

Level 2 - The General Council (GC) is composed of the representatives of all the members. General Council acts on behalf of the MC and report to Ministerial Council. It also acts as the Dispute Settlement Body as well as the Trade Policy Review Body.

Level 3 - There are three councils – the Goods Council, the Services Council and the council of Trade-Related Aspects of Intellectual Property Rights (TRIPS) operating under the GC. These councils deal with different areas and report to the General council. Further, there are three Committees: the Committee on Trade and Development (CTD), the Committee on Balance of Payments Restrictions (CBOPR), and the Committee on Budget, Finance and Administration (CF A) which execute the functions assigned to them by E- WTO Agreement and the GC.

Level 4 - There are some committees and working Groups which work on specialised subjects and report to the higher level council.

Ministerial Conference appoints a Director General (DG) who is head of The Secretariat and have administration responsibility. He has the tenure of four years. He is assisted by the four Deputy Directors from different member countries. Director General presents the annual budget estimates and financial statement of the WTO to the CBFA for review and recommendations for the final approval by the GC.



Check Your Progress 1

1) What is WTO?

....

....

....

2) What was GATT?

....

....

....

3) State objectives and guiding principles of WTO.

....

....

....

4) What is the organisational structure of WTO?

....

....

....

11.5 TRADE AGREEMENTS

The WTO oversees about sixty different agreements which have the status of international legal texts. Member countries are expected to sign and ratify all WTO agreements on accession. Important agreements are given below:

11.5.1 General Agreements on Trade in Services (GATS)

General agreements on trade in services (GATS) came into existence in the Uruguay round. The agreement covers all internationally traded services such as tourism, telecommunications, professional services, banking etc but GATS do not includes (i) government services (ii) Air transport services and traffic right.

The agreement defines four modes of trading services

Mode 1: Cross-border supply - Service supplied within the territory of the Member, from the territory of another Member, e.g. international phone calls, banking, mail etc.

Mode 2: Consumption abroad - Services consumer moves into another member's territory to obtain the services. e.g. Tourism, medical treatments, education .

Mode 3: Commercial presence - Service delivered within the territory of the Member by setting up subsidiary or branches through the commercial presence of the supplier. e.g a foreign bank setting a branch in a member country.

Mode 4: Presence of a natural person - It involve the admission of foreign individuals to another country to provide services.

<table>
<tr><th colspan="4">GATS Four Mode of Supply</th></tr>
<tr><th colspan="2">Mode</th><th>Criteria</th><th>Supplier Presence</th></tr>
<tr><td>Mode 1</td><td>Cross-border supply</td><td>1. Service delivered within the territory of the Member, from the territory of another Member.</td><td rowspan="2">1. Service supplier not present within the territory of the Member.</td></tr>
<tr><td>Mode 2</td><td>Consumption abroad</td><td>2. Service delivered outside the territory of the Member, in the territory of another Member, to a service consumer of the Member.</td></tr>
<tr><td>Mode 3</td><td>Commercial presence</td><td>3. Service delivered within the territory of the Member, through the commercial presence of the supplier.</td><td rowspan="2">2. Service supplier present within the territory of the Member.</td></tr>
<tr><td>Mode 4</td><td>Presence of a natural person</td><td>4. Service delivered within the territory of the Member, with supplier present as a natural person.</td></tr>
</table>

Source: Scheduling of Initial Commitment in Trade in Services, GATT, MTN.GNS/W/164

11.5.1.1 General Principles of GATS

I) **Most favoured nation (MFN) -** Principle of MFN is based on Non-discriminatory policy of WTO. According to MFN principle, each of WTO Member countries should treat the other entire membership equally as most favoured nation. If a country gives special treatment to one member country such as lower custom duty etc. same benefit Must be given to other member countries as well.

II) **Transparency -** if one member country does change any existing law, regulation and rules, the member country should immediately inform the council of trade in services. Each member is required to establish an enquiry point to respond to request from other members for information.

III) **Market Access -** Market Access is not Obligation but the commitment made by the country to open market in Specific sector for other member countries by negotiation. Market Access have some limitations. For example, a country can allow foreign bank to work within domestic territory but can restrict/ limit number of branches according to national treatment principle.

ignou
THE PEOPLE'S
UNIVERSITY

11.5.2 Trade Related Investment Measures (TRIMs)

The Agreement on Trade-Related Investment Measures (TRIMS) are rules that apply to the domestic regulations a country applies to foreign investors, often as part of an industrial policy. The agreement was agreed upon by all members of the World Trade Organisation. The agreement was concluded in 1994 and came into force in 1995. The WTO was not established at that time, it was its predecessor, the GATT (General Agreement on Trade and Tariffs.

Policies such as local content requirements and trade balancing rules have traditionally been used to promote the interests of domestic industries and combat restrictive business practices have now been banned. Trade-Related Investment Measures is the name of one of the four principal legal agreements of the WTO trade treaty. TRIMs are rules that restrict preference of domestic firms and thereby enable international firms to operate more easily within foreign markets.

Features of TRIMs

1) Abolition of restrictions imposed on foreign capital.
2) Offering equal rights to the foreign investor on par with the domestic investor.
3) No restrictions on any area of investment.
4) No limitation or ceiling on the quantum of foreign investment.
5) Granting permission, without restrictions, to import raw material and other components.
6) No force on the foreign investors to use the total products and or materials.
7) Export of the part of the final product will not be mandatory.
8) Restriction on repatriation of dividend interest and royalty will be removed.
9) Phased manufacturing programming will be introduced to increase the domestic content of manufacturer.

11.5.3 Trade in Agriculture

The Agreement on Agriculture (AoA) is an international treaty of the World Trade Organisation. It was negotiated during the Uruguay Round of the General Agreement on Tariffs and Trade, and entered into force with the establishment of the WTO on January 1, 1995. It has three pillars, which are as follows:

1) **Domestic support-** It refers to the subsidies that governments give to the farmers like food, fertilizer, power, Water etc. The domestic subsidies are grouped into 3 classes called boxes.

   i) **Green Box:** Agriculture related subsidies that fit into WTO's green box are policies that are not restricted by the trade agreement because they are not considered trade distorting.

   ii) **Amber Box:** This box consists of all domestic support measures considered to distort production and trade. Any support payments that are considered to be trade distorting and

are subject to limitations and disciplines fall into the amber box. These subsidies/support are to be gradually reduced.

iii) **Blue Box:** This Box includes any support payments which are not subject to the amber box reduction agreement because they are direct payments under a production limiting programme.

2) **Export Subsidies -** Export subsidies are to be limited by the developed countries either in value or volume terms so that international prices are not lowered below a point and exports of the developing countries are not eased out. Nairobi Ministerial in 2015 decided to phase them out.

3) **Market Access -** Market access means all member countries should throw open their domestic market to agricultural imports by reduction of tariffs and removal of non tariff barriers. Countries should under take

   a) **'Tariffication' -** to convert non-tariff barriers (like quotes) to tariffs and

   b) **'bind' their tariffs -** to agree to a limit that is the bounded rate and not increase the rates beyond them. The bounded rates are usually high.

11.5.4 Trade in Textile and Clothing

The Agreement on Textiles and Clothing (ATC) was negotiated in the Uruguay Round of Trade Negotiations. It replaced the Arrangement Regarding International Trade in Textiles (MFA, or Multi-Fibre Arrangement) of 20 December 1973. The ATC provided for all then existing textile and clothing trade restrictions to be notified and eliminated over a period of 10 years from the date of enforcement of the WTO Agreement. The ATC also provided that the ATC itself would be terminated at the beginning of the 12th year of the WTO, together with all of the remaining restrictions within its scope. As this termination duly took place on January 1, 2005, the ATC is no longer in effect.

11.5.5 Trade Related Intellectual Property Right (Trips)

The **Agreement** on Trade-Related Aspects of Intellectual Property Rights (**TRIPS**) is an international legal **agreement** between all the member nations of the World Trade Organisation (WTO). This provides uniform legal protection for scientific, technological and artistic achievements. It is commonly known as the TRIPS Agreement. The Uruguay Round introduced intellectual property rights into the multilateral trading system. The TRIPS Agreement came into effect on January 1, 1995 and it applies to all WTO members, mandatorily.

The areas of intellectual property include:

- Copyright and related rights (i.e. the rights of performers, producers of sound recordings and broadcasting organisations)
- Trademarks, including service marks
- Geographical indications including appellations of origin
- Industrial designs
- Patents including the protection of new varieties of plants

- Layout-designs (topographies) of integrated circuits
- Undisclosed information, including trade secrets; and
- test data

The main features of the Agreement are:

A) **Standards:** Each member to be provided minimum standard of protection. Each of the main elements of protection is defined, namely the subject-matter to be protected, the rights to be conferred and permissible exceptions to those rights, and the minimum duration of protection

B) **Enforcement:** Intellectual property right are enforced by domestic procedures and remedies. The Agreement lays down certain general principles applicable to all IPR enforcement procedures.

C) **Dispute settlement**: Dispute settlement body will settle dispute between the WTO members. In addition, the Agreement provides for certain basic principles, such as national and most-favoured-nation treatment and some general rules. The obligations under the Agreement apply equally to all member countries, but developing countries will have a longer period to phase them out.

11.5.6 Dispute Settlement

The WTO provides mechanism to settle trade dispute under the Dispute Settlement Understanding. A dispute arises when a member country believes that another member country is violating an agreement which has been made in the WTO. The Dispute Settlement Understanding (DSU) establishes rules and procedures that manage various disputes arising under the Covered Agreements of the Final Act of the Uruguay Round. The DSU created the Dispute Settlement Body (DSB), consisting of all WTO members, which administers dispute settlement procedures. It provides limited time frames to settle the dispute and establishes an appeals system to standardise the interpretation of specific clauses of the agreements. It also provides for the automatic establishment of a panel and automatic adoption of a panel report to prevent nations from stopping action by simply ignoring complaints. Trade disputes are to be settled with two thirds/three fourths majority of the nations. The GATT required unanimity amongst all the members.

Check Your Progress 2

1) What are TRIMs?

....

....

....

2) What do you understand by TRIPs?

....

....

....

11.6 WTO AND INDIA

India has been one of the founding members of WTO. It has been playing a very active role in the negotiations of the WTO. Under WTO framework, India has gained most favoured nation (MFN) status in 159 member nations. It took an active part in impartial trade disputes settlement process and stood for free and fair trade across the world. Under WTO framework, Indian Economy got many opportunities, mainly Indian Service sector companies got access to world market. This lead to dominance of Indian companies in sectors like IT related and Pharma especially generic pharma products.

To facilitate the framework of WTO, India has made domestic laws consistent with WTO agreements. For eg: Geographic indication of goods (registration and protection) Act (1999), etc.

India's participation in WTO, would ultimately lead to better prosperity for the nation. By virtue of being a member of WTO, several countries are now trading with India. This has given a boost to production, employment, standard of living and an opportunity to maximise the use of the world resources. According to the WTO Secretariat Report, along with the policy statement by the Government of India, India is expected to snatch most of the business deals that are presently catering the developed nations which includes major service based industries like telecom, financial services, infrastructure services such as transport and power. The increase in availability of goods and services and reduction in tariffs has prompted many developed nations to go for business with India especially in IT and ITeS industry. If the trend continues, India is expected to cater to the software and services demands of major giants of the business world by 2025.

Implications for India for the various agreements that are signed under WTO are as follows:

i) **GATS:** GATS lead to reduction of Tariff and Non-Tariff Barriers which helped India to participate in the globalisation of services. For example, India has carved a niche for itself in the global market and has emerged as a leading exporter of software services. In several service sectors, including for instance, construction and engineering, health, and education services, India has considerable export potential, due mainly to the availability of skilled and abundant labour.

ii) **Trade Related Investment Measures (TRIMS):** India has adopted several foreign investment liberalisation measures since the launch of the New Industrial Policy in1991. Regulations for both FDI and FPI were simplified and now foreign investment is allowed in almost all sectors. .

iii) **Trade Related Intellectual Property Rights (TRIPS):** For India, the WTO's TRIPs agreement became binding from 2005 onwards as the country has got a ten-year transition period (1995-2005) to make the domestic legislation compatible with TRIPs. Here, India has got additional five-year transition period because of not having product patent regime in critical sector like pharmaceutical. Hence, existing laws were amended and fresh legislations were introduced during this period.

Different amendments to the various existing Acts – Patent Amendment Act (2005), Copy right Amendment Act (2010), are made to strengthen domestic legal framework to fulfil the harmonisation with the WTO's

TRIPS agreement. Similarly, a number of fresh legislations are made to upgrade the country's intellectual property regime.

iv) **Agreement on Agriculture (AOA):** In the short term the Agreement on Agriculture may not affect India much because both its domestic support and export subsidy are negative i.e. less than the minimal 10% in product specific domestic support. Moreover, the safeguards provided in the Agreement for the developing countries protect India from any major impact of liberalisation of the world trade. However, in the long term, due to advantage of cheap labour that India enjoys, the cost of production is lower than any other countries, therefore in spite of its lower productivity as compared to the developed countries, the prices for agricultural products such as rice, tea, sunflower oil and cotton, will still remain lower than the world price. As a result, import into Indian markets will not be attractive as the domestic market prices in such products remain lower than the international standard. Hence, the impact of large scale imports due to liberalisation of the world economy will not be much.

v) **Agreement on clothing and textiles:** After ATC, quota free regime of international trade from January 2005 has made a positive impact on the Indian textile and clothing (T&C) exports, as well as on the overall exports of the country has been further substantiated. The export trade in the earlier stage was confined to raw material and intermediate products (yarn and fabric). It has now shifted to more value added products, like readymade garments and made-ups. A significant benefit comes from a positive impact on employment in these labour intensive industries. Post-Quota changes continue to shape global textiles trade.

11.7 LET US SUM UP

As an outcome of the agreement by 123 member countries in eight round meeting of General Agreement on Trade and Tariff (GATT) in Uruguay, WTO was established on 1st January, 1995 with Geneva at its headquarters. Its major objectives include to implement the new world trade system as visualised in the Agreement and to promote world Trade Agreement to encourage World Trade in a manner that benefits every country. It has its organisational structure at four levels: ministerial conference, The General Council, Three Councils, Committees and working groups. WTO agreement pertains to agreement on trade in services, agreement on trade related investment measures agreement on agriculture, agreement on textiles and clothing, agreement on trade related intellectual property rights. Dispute settlement mechanism has been provided to settle trade disputes of the member countries.

India has been the founding members of WTO. It has made domestic laws consistent with WTO agreements and has gained most favoured nation status in 159 member nations. By virtue of being a member of WTO, several countries are now trading with India which in turn has given boost to production, employment and standard of living.

11.8 REFERENCES

1) Rao, M B, *WTO and international trade*, New Delhi :Vikas, 2001.

2) World Trade Organisation, *WTO dispute settlement procedures*, Cambridge, 2001.

3) Chand, Ramesh, Trade liberalisation, *WTO and Indian agriculture*, New Delhi: Mittal, 2002.

4) Katrak, Homi and Strange, Roger, Ed, *WTO and developing countries*, Hampshire: Palgrave, 2004.

5) Deol, O.S *Twenty years of world trade organisation*, new Century publication, 2016.

6) O.S. Deol (2016), *Twenty Year of World Trade Organisation* (WTO) 1995-2015.

7) Ravishanker Kumar singh, R. Shashi Kumar (2008) WTO and India Challenges and opportunities.

https:// wto.org

11.9 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1) Read Section 11.1

2) Read Section 11.2

3) Read Section 11.3

4) Read Section 11.4

Check Your Progress 2

1) Read Sub-section 11.5.2

2) Read Sub-section 11.5.5

11.10 REVIEW QUESTIONS

1) What are the major areas in which WTO has facilitated agreements among its members?

2) What is the dispute settlement mechanism under WTO? How is it different from the mechanism under GATT?

3) Explain the impacts of WTO on Indian Economy.

GLOASSARY

Allocative Efficiency : Producing goods and services demanded by consumers at a price that reflect the marginal cost of supply.

Abnormal Profit : Profit in excess of normal profit - also known as supernormal profit or monopoly profit. Abnormal profits may be maintained in a monopolistic market in the long run because of barriers to entry.

Adverse Selection : When one party to a deal is making suboptimal choice because of asymmetry in information.

Collusive Behaviour : In collusive oligopoly industry contains few producers wherein producers agree among one another as to pricing of output and allocation of output among themselves. Cartels, such as OPEC, are collusive oligopolies.

Cournot Model : The Cournot model of oligopoly assumes that rival firms produce a homogenous product, and each attempts to maximise profits by choosing how much to produce. All firms choose output (quantity) simultaneously.

Cartel : An association of manufacturers or suppliers with the purpose of maintaining prices at a high level and restricting competition.

Common Resources : These are resources where there are many users but no owner.

Comparative Advantage : A country has a comparative advantage in producing a good 'A' if the cost of producing 'A' is lower at home than in the other country.

Derived Demand : Refers to demand for factors of production as their demand is derived from the demand for goods and services.

Economic Profit : A firm's revenues less its economic cost.

Economic Cost : The economic cost includes the accounting cost and the opportunity cost of the factor of production in its next best alternative use.

Excess Capacity : **Excess capacity** is a situation in which actual production is less than what is achievable or optimal for a firm. This often means that the demand for the product is below what the business could potentially supply to the market.

Economic Rent : Refers to payment for the use of something which is fixed in supply.

ignou THE PEOPLE'S UNIVERSITY

Externalities	:	Externalities occur in an economy when the production or consumption of a specific good impacts a third party that is not directly related to the production or consumption.
Efficient Allocation of Resources	:	That combination of inputs, outputs and distribution of inputs, outputs such that any change in the economy can make someone better off (as measured by indifference curve map) only by making someone worse off (Pareto efficiency).
Free Rider	:	It means one person is using the benefits of a good without paying anything for it.
Factor Endowments	:	A country's endowments of resources like land, labour, capital etc.
Interest	:	Refers to payment for the use of capital. Interest is paid for man made goods which are used for production of goods and services.
Imperfect Competition	:	Imperfect competition exists whenever a market, hypothetical or real, violates the abstract tenets of neoclassical pure or perfect competition
Imperfect Information	:	Imperfect information is a situation in which the parties to a transaction have different information, as when the seller of a used car has more information about its quality than the buyer. In other words, a situation when information about the goods and services available to buyers' and sellers are not symmetric.
Indifference Curve or Utility Frontier	:	An indifference curve represents a series of combinations between two different economic goods, between which an individual would be theoretically indifferent regardless of which combination he received.
Isoquants	:	The isoquant curve is a graph that charts all input combinations that produce a specified level of output.
International Trade	:	The trade that takes place between buyer and seller of two different nations is called international trade.
Long Run	:	The time period when all inputs including plant capacity are variable.
Labour Union	:	A recognised organisation of workers that seeks protection of their rights.
Monopoly	:	A firm that is the sole seller of a product without close substitutes.

Monopolistic Competition	:	There are a large number of firms that produce differentiated products which are close substitutes to each other. In other words, large sellers sell the products that are similar, but not identical and compete with each other on other factors besides price.
Marginal Physical Product	:	Change in quantity produced as one additional unit of the variable factor keeping all other factors constant.
Marginal Revenue Product	:	Marginal physical product multiplied by marginal revenue.
Minimum Wage Act	:	Government law which fixes the minimum level of wages payable.
Marginal Rate of Substitution	:	The marginal rate of substitution is the amount of a good that a consumer is willing to give up for another good, as long as the new combination of the two goods is equally satisfying. It's used in indifference theory to analyse consumer behaviour.
Marginal Rate of Technical Substitution	:	The marginal rate of transformation or technical substitution is the rate at which one good must be sacrificed in order to produce a single extra unit (or marginal unit) of another good, assuming that both goods require the same scarce inputs. The marginal rate of transformation is tied to the production possibilities frontier (PPF), which displays the output potential for two goods using the same resources.
Market Imperfection	:	Conditions in market which are not conclusive to perfect competition.
Moral Hazard	:	Deliberate concealment of some information from the other party.
Market Failure		It refers to failure of market mechanism to achieve efficient allocation of resources in the economy.
Mercantilism	:	It is the trade theory which postulates that countries should encourage export and discourage import. The theory argues that a nation should increase export and reduce import and export is the only way to accumulate wealth.(in terms of precious metals like gold).
Normal Profits	:	Normal Profit is an economic condition occurring when the difference between a firm's total revenue and total cost is equal to zero. Simply, normal profit is the minimum level of profit needed for a company to remain competitive in the market.
Non Collusive Behaviour	:	Oligopoly is best defined by the actual conduct (or behaviour) of firms within a market. The

concentration ratio measures the extent to which a market or industry is dominated by a few leading firms. When these firms agree to behave in a particular manner it is said to be collusive behaviour of oligopoly market.

Non-exclusion : It means that we cannot exclude non-payers from consuming it.

Non-rival : It means that when person consume a good, it will not diminish other person's share.

Oligopoly : A state of limited competition, in which a market is shared by a small number of big producers or sellers.

Optimal Output Mix : The optimal mix of output is known in economics as the most desirable combination of output attainable with available resources, technology, and social values.

Perfectly Competitive Market : A market is perfectly competitive if it consists of many consumers and firms, none of whom have any appreciable market share, all firms produce identical products, and there are no barriers to entry or exit, and consumers have perfect information about prices.

Price Discrimination : When a firm charges different prices to different groups of consumers for an identical good or service, for reasons not associated with costs, it is termed as price discrimination.

Product Differentiation : The marketing of generally similar products with minor variations that are used by consumers while making a choice.

Prisoner's Dilemma A situation in which two players each have two options whose outcome depends crucially on the simultaneous choice made by the other, often formulated in terms of two prisoners separately deciding whether to confess to a crime.

Profits : Are returns to entrepreneurs for use of their organisation and management skills in the production process, as well as bearing risks.

Productive Efficiency : Production efficiency is an economic level at which the economy can no longer produce additional amounts of a good without lowering the production level of another product. This happens when an economy is operating along its production possibility frontier.

Production Possibility Curve : A graphical representation of the alternative combinations of the amounts of two goods or services that an economy can produce by transferring resources from one good or service to the other. This curve helps in determining what quantity of a nonessential good or a service an

		economy can afford to produce without jeopardising the required production of an essential good or service.
Public Goods	:	A public good is a product that one individual can consume without reducing its availability to another individual, and from which no one is excluded. Economists refer to public goods as "non-rivalrous" and "non-excludable."
Price Ratio or Relative Price	:	Price of a commodity as it compares to another. The relative price is usually presented as a ratio between the two prices.
Public Interventions	:	Actions of the government in the markets for goods, services and factors.
Public Provision		Direct supply of certain socially desirable services /goods by the government authorities/ agencies to the end users.
Price Ceiling		It occurs when the government puts a legal limit on how high the price of a product can be.
Quasi Rent	:	Return to a factor of production over and above its average cost; it is a short-run concept.
Rent	:	Refers to payment for the use of land. Land refers to all natural resources available for the purpose of production.
Short Run	:	The time period when at least one of the inputs (size of the plant) is fixed.
Supernormal Profit	:	A firm earns supernormal profit when its profit is above that required to keep its resources in their present use in the long run i.e. when price > average cost.
Stackelberg Model		The Stackelberg leadership model is a strategic game in economics in which the leader firm moves first and then the follower firms move sequentially. ... There are some further constraints upon the sustaining of a Stackelberg equilibrium.
Transfer Earnings	:	Minimum payment to be made to a factor of production to retain it in present employment. It refers to the earnings in the next best employment.
Wages	:	Refers to payment for the use of labour which refers to the human effort made for production of goods and services through technical expertise or manual labour.
VMP	:	Value of Marginal product, i.e. price times the marginal product of factor.

SOME USEFUL BOOKS

1) Kautsoyiannis, A. (1979), *Modern Micro Economics*, London: Macmillan.

2) Lipsey, RG (1979), *An Introduction to Positive Economics*, English Language Book Society.

3) Pindyck, Robert S. and Daniel Rubinfield, and Prem L. Mehta (2006), *Micro Economics*, An imprint of Pearson Education.

4) Case, Karl E. and Ray C. Fair (2015), *Principles of Economics*, Pearson Education, New Delhi.

5) Stiglitz, J.E. and Carl E. Walsh (2014), *Economics*, viva Books, New Delhi.

ignou
THE PEOPLE'S
UNIVERSITY