



# *Introductory Microeconomics*

**Textbook in Economics for Class XII**



12103

विद्यया ऽ मृतमश्नुते



एन सी ई आर टी  
NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्  
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

## 12103 – INTRODUCTORY MICROECONOMICS

Textbook for Class XII

ISBN 81-7450-678-0

### First Edition

February 2007 Phalgun 1928

### Reprinted

December 2007, December 2008,  
January 2010, March 2013,  
November 2013, December 2014,  
December 2015, February 2017,  
January 2018, December 2018,  
September 2019, January 2021,  
November 2021, February 2022

### Revised Edition

November 2022 Kartika 1944

PD 150T HK

© National Council of Educational  
Research and Training, 2007, 2022

₹ 85.00

Printed on 80 GSM paper with NCERT  
watermark

Published at the Publication Division by the  
Secretary, National Council of Educational  
Research and Training, Sri Aurobindo  
Marg, New Delhi 110 016 and printed at  
Shagun Offset Press, F-476, Sector – 63,  
Noida – 201 301 (U.P.)

### ALL RIGHTS RESERVED

- ❑ No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publisher.
- ❑ This book is sold subject to the condition that it shall not, by way of trade, be lent, re-sold, hired out or otherwise disposed of without the publisher's consent, in any form of binding or cover other than that in which it is published.
- ❑ The correct price of this publication is the price printed on this page. Any revised price indicated by a rubber stamp or by a sticker or by any other means is incorrect and should be unacceptable.

### OFFICES OF THE PUBLICATION DIVISION, NCERT

NCERT Campus  
Sri Aurobindo Marg  
New Delhi 110 016

Phone : 011-26562708

108, 100 Feet Road  
Hosdakere Halli Extension  
Banashankari III Stage  
Bengaluru 560 085

Phone : 080-26725740

Navjivan Trust Building  
P.O. Navjivan  
Ahmedabad 380 014

Phone : 079-27541446

CWC Campus  
Opp. Dhankal Bus Stop  
Panihati  
Kolkata 700 114

Phone : 033-25530454

CWC Complex  
Maligaon  
Guwahati 781 021

Phone : 0361-2674869

### Publication Team

Head, Publication Division : Anup Kumar Rajput

Chief Production Officer : Arun Chitkara

Chief Business Manager : Vipin Dewan

Chief Editor (In charge) : Bijnan Sutar

Assistant Editor : R. N. Bhardwaj

Production Assistant : Sunil Kumar

### Cover, Layout and Illustrations

Nidhi Wadhwa

# Foreword

THE National Curriculum Framework (NCF), 2005, recommends that children's life at school must be linked to their life outside the school. This principle marks a departure from the legacy of bookish learning which continues to shape our system and causes a gap between the school, home and community. The syllabi and textbooks developed on the basis of NCF signify an attempt to implement this basic idea. They also attempt to discourage rote learning and the maintenance of sharp boundaries between different subject areas. We hope these measures will take us significantly further in the direction of a child-centred system of education outlined in the National Policy of Education (1986).

The success of this effort depends on the steps that school principals and teachers will take to encourage children to reflect on their own learning and to pursue imaginative activities and questions. We must recognise that, given space, time and freedom, children generate new knowledge by engaging with the information passed on to them by adults. Treating the prescribed textbook as the sole basis of examination is one of the key reasons why other resources and sites of learning are ignored. Inculcating creativity and initiative is possible if we perceive and treat children as participants in learning, not as receivers of a fixed body of knowledge.

These aims imply considerable change in school routines and mode of functioning. Flexibility in the daily time-table is as necessary as rigour in implementing the annual calendar so that the required number of teaching days are actually devoted to teaching. The methods used for teaching and evaluation will also determine how effective this textbook proves for making children's life at school a happy experience, rather than a source of stress or boredom. Syllabus designers have tried to address the problem of curricular burden by restructuring and reorienting knowledge at different stages with greater consideration for child psychology and the time available for teaching. The textbook attempts to enhance this endeavour by giving higher priority and space to opportunities for contemplation and wondering, discussion in small groups, and activities requiring hands-on experience.

The National Council of Educational Research and Training (NCERT) appreciates the hard work done by the textbook development committee responsible for this book. We wish to thank the Chairperson of the advisory group in Social Sciences, at the higher secondary level, Professor Hari Vasudevan and the *Chief Advisor* for this book, Professor Tapas Majumdar, for guiding the work of this

committee. Several teachers contributed to the development of this textbook; we are grateful to their principals for making this possible. We are indebted to the institutions and organisations which have generously permitted us to draw upon their resources, materials and personnel. We are especially grateful to the members of the National Monitoring Committee, appointed by the Department of Secondary and Higher Education, Ministry of Human Resource Development, under the Chairpersonship of Professor Mrinal Miri and Professor G.P. Deshpande for their valuable time and contribution. As an organisation committed to systemic reform and continuous improvement in the quality of its products, NCERT welcomes comments and suggestions which will enable us to undertake further revision and refinements.

New Delhi  
20 November 2006

*Director*  
National Council of Educational  
Research and Training

© NCERT  
not to be republished

## RATIONALISATION OF CONTENT IN THE TEXTBOOKS

In view of the COVID-19 pandemic, it is imperative to reduce content load on students. The National Education Policy 2020, also emphasises reducing the content load and providing opportunities for experiential learning with creative mindset. In this background, the NCERT has undertaken the exercise to rationalise the textbooks across all classes. Learning Outcomes already developed by the NCERT across classes have been taken into consideration in this exercise.

**Contents of the textbooks have been rationalised in view of the following:**

- Overlapping with similar content included in other subject areas in the same class
- Similar content included in the lower or higher class in the same subject
- Difficulty level
- Content, which is easily accessible to students without much interventions from teachers and can be learned by children through self-learning or peer-learning
- Content, which is irrelevant in the present context

This present edition, is a reformatted version after carrying out the changes given above.

# Constitution of India

## Part IV A (Article 51 A)

### Fundamental Duties

It shall be the duty of every citizen of India —

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers, wildlife and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;
- \*(k) who is a parent or guardian, to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.

---

**Note:** The Article 51A containing Fundamental Duties was inserted by the Constitution (42nd Amendment) Act, 1976 (with effect from 3 January 1977).

\*(k) was inserted by the Constitution (86th Amendment) Act, 2002 (with effect from 1 April 2010).

# Textbook Development Committee

## **CHAIRPERSON, ADVISORY COMMITTEE FOR SOCIAL SCIENCE TEXTBOOKS AT THE HIGHER SECONDARY LEVEL**

Hari Vasudevan, *Professor*, Department of History, University of Calcutta, Kolkata

## **CHIEF ADVISOR**

Tapas Majumdar, *Professor Emeritus of Economics*,  
Jawaharlal Nehru University, New Delhi

## **ADVISOR**

Satish Jain, *Professor*, Centre for Economics Studies and Planning,  
School of Social Sciences, Jawaharlal Nehru University, New Delhi

## **MEMBERS**

Harish Dhawan, *Lecturer*, Ramlal Anand College (Evening) New Delhi

Papiya Ghosh, *Research Associate*, Delhi School of Economics, New Delhi

Rajendra Prasad Kundu, *Lecturer*, Economics Department,  
Jadavpur University, Kolkata

Sugato Das Gupta, *Associate Professor*, CESP, Jawaharlal Nehru  
University, New Delhi

Tapasik Bannerjee, *Research Fellow*, Centre for Economics Studies  
and Planning, Jawaharlal Nehru University, New Delhi

## **MEMBER-COORDINATOR**

Jaya Singh, *Lecturer*, Economics, Department of Education in Social  
Sciences and Humanities, NCERT, New Delhi



# Acknowledgements

The National Council of Educational Research and Training (NCERT) acknowledges the invaluable contribution of academicians and practising school teachers for bringing out this textbook. We are grateful to Anjan Mukherjee, *Professor*, JNU, for going through the manuscript and suggesting relevant changes. We thank Jhaljit Singh, *Reader*, Department of Economics, University of Manipur for his contribution. We also thank our colleagues Neeraja Rashmi, *Reader*, Curriculum Group; M.V. Srinivasan, Ashita Raveendran, *Lecturers*, Department of Education in Social Sciences and Humanities (DESSH), for their feedback and suggestions.

We would like to place on record the precious advice of (Late) Dipak Banerjee, *Professor (Retd.)*, Presidency College, Kolkata. We could have benefited much more of his expertise, had his health permitted.

The practising school teachers have helped in many ways. The Council expresses its gratitude to A.K. Singh, *PGT (Economics)*, Kendriya Vidyalaya, Varanasi, Uttar Pradesh; Ambika Gulati, *Head*, Department of Economics, Sanskriti School; B.C. Thakur, *PGT (Economics)*, Government Pratibha Vikas Vidyalaya, Surajmal Vihar; Ritu Gupta, *Principal*, Sneh International School, Shoban Nair, *PGT (Economics)*, Mother's International School, Rashmi Sharma, *PGT (Economics)*, Kendriya Vidyalaya, JNU Campus, New Delhi.

We thank Savita Sinha, *Professor and Head*, DESSH, for her support.

Special thanks are due to Vandana R. Singh, *Consultant Editor*, NCERT for going through the manuscript.

The council also gratefully acknowledges the contributions of Dinesh Kumar, *In-charge*, Computer Station; Amar Kumar Prusty and Neena Chandra, *Copy Editors*; in shaping this book. The contribution of the Publication Department in bringing out this book is duly acknowledged.

This textbook has been reviewed with the support of experts like Meeta Kumar, *Associate Professor*, Miranda House, University of Delhi; Shalini Saksena, *Associate Professor*, DCAC; and Bharat Garg, *Assistant Professor*, Shyam Lal College, University of Delhi. Their contributions are duly acknowledged.

The council is also thankful to Tampakmayum Alan Mustofa, *JPF*; Ayaz Ahmad Ansari, Farheen Fatima and Amjad Husain, *DTP Operators*, in shaping this textbook.

The Council also acknowledges the efforts of Neeraja Rashmi, *Professor*, DESS, NCERT; M.V. Srinivasan, DESS, NCERT; Jaya Singh, DESS, NCERT; Pratima Kumari, *Associate Professor*, DESS, NCERT; Ashita Raveendran, *Associate Professor*, PMD, NCERT; Sabita Patnaik, *PGT Economics*, DMS, RIE, Bhubaneswar; Anita Raveendra *PGT Economics*, DMS, RIE, Mysore, towards the rationalisation of content of the textbook.



# Contents

<i>Foreword</i>	<i>iii</i>
<b>1. INTRODUCTION</b>	<b>1</b>
1.1 A Simple Economy	1
1.2 Central Problems of an Economy	2
1.3 Organisation of Economic Activities	4
1.3.1 The Centrally Planned Economy	4
1.3.2 The Market Economy	5
1.4 Positive and Normative Economics	6
1.5 Microeconomics and Macroeconomics	6
1.6 Plan of the Book	6
<b>2. THEORY OF CONSUMER BEHAVIOUR</b>	<b>8</b>
2.1 Utility	8
2.1.1 Cardinal Utility Analysis	9
2.1.2 Ordinal Utility Analysis	11
2.2 The Consumer's Budget	15
2.2.1 Budget Set and Budget Line	15
2.2.2 Changes in the Budget Set	17
2.3 Optimal Choice of the Consumer	19
2.4 Demand	21
2.4.1 Demand Curve and the Law of Demand	21
2.4.2 Deriving a Demand Curve from Indifference Curves and Budget Constraints	23
2.4.3 Normal and Inferior Goods	24
2.4.4 Substitutes and Complements	25
2.4.5 Shifts in the Demand Curve	25
2.4.6 Movements along the Demand Curve and Shifts in the Demand Curve	26
2.5 Market Demand	26
2.6 Elasticity of Demand	27
2.6.1 Elasticity along a Linear Demand Curve	29
2.6.2 Factors Determining Price Elasticity of Demand for a Good	31
2.6.3 Elasticity and Expenditure	31
<b>3. PRODUCTION AND COSTS</b>	<b>36</b>
3.1 Production Function	36
3.2 The Short Run and the Long Run	38
3.3 Total Product, Average Product and Marginal Product	39
3.3.1 Total Product	39
3.3.2 Average Product	39
3.3.3 Marginal Product	39

3.4 The Law of Diminishing Marginal Product and the Law of Variable Proportions	40
3.5 Shapes of Total Product, Marginal Product and Average Product Curves	41
3.6 Returns to Scale	42
3.7 Costs	43
3.7.1 Short Run Costs	43
3.7.2 Long Run Costs	48
<b>4. THE THEORY OF THE FIRM UNDER PERFECT COMPETITION</b>	<b>53</b>
4.1 Perfect Competition: Defining Features	53
4.2 Revenue	54
4.3 Profit Maximisation	56
4.3.1 Condition 1	56
4.3.2 Condition 2	56
4.3.3 Condition 3	57
4.3.4 The Profit Maximisation Problem: Graphical Representation	58
4.4 Supply Curve of a Firm	59
4.4.1 Short Run Supply Curve of a Firm	59
4.4.2 Long Run Supply Curve of a Firm	60
4.4.3 The Shut Down Point	61
4.4.4 The Normal Profit and Break-even Point	61
4.5 Determinants of a Firm's Supply Curve	62
4.5.1 Technological Progress	62
4.5.2 Input Prices	62
4.6 Market Supply Curve	63
4.7 Price Elasticity of Supply	65
<b>5. MARKET EQUILIBRIUM</b>	<b>71</b>
5.1 Equilibrium, Excess Demand, Excess Supply	71
5.1.1 Market Equilibrium: Fixed Number of Firms	72
5.1.2 Market Equilibrium: Free Entry and Exit	80
5.2 Applications	84
5.2.1 Price Ceiling	84
5.2.2 Price Floor	85
<i>Glossary</i>	88