The refresher courses apart from serving teachers in keeping themselves abreast for the latest advances in the subject area also provide opportunities for them to exchange experience with their peers and to mutually learn from each other. Teachers being the main gate keepers for effecting an integration of mathematics in economic theory, needs to be equipped through adequate training. Participants in the need assessment study indicated the relevance of the course and the need to expand the course offerings. The study provided a solid framework for the organisers in identifying gaps or discrepancies with respect to the mathematical skills, to prepare the course design and content and also take note of the problems that may not be solved by training. In addition, needs analysis also serves as basis of comparison for evaluating the effectiveness of the course. Considering the expenses involved in executing training programs, it is logical to analyze training needs at the onset, so that it can be made to order focusing on precise needs. The documentation and dissemination of findings of need analysis becomes useful in sharing replicable lessons and realistic pictures.

Table of Contents

Manual
LECTURERS
ECONOMICS
YEAR

Project
Co-ordinator/Editor

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CONTENTS

Foreword

Economics as a discipline is introduced at the Senior Secondary Stage in the form of an elective subject. At the Secondary stage of school education, the study of Economics, as a component of Social Science, has been dealt with in a general manner avoiding the rigour of economic theory. But at the senior secondary stage, the students are in a position to comprehend and appreciate the basic concepts and theories of economics. ***Recently few significant changes in syllabus and pattern of evaluation have been introduced by CBSE which majorly impacts the Classroom teaching and strategy of preparing students.***

Transaction and evaluation techniques are changing fast in Economics. INSET programmes are organized to upgrade and enrich participants' knowledge in the area of Economics. Changes in the curriculum have to be shared with the participants along with common errors committed by students.

Latest approaches introduced in Economics such as Multidisciplinary Approach, Open Text Based assessment are also to be discussed with the participants. Certain important areas such as interpretation of Statistical Values, Use of Mathematical Tools, Budget and National Income Accounting, *etc.* are also to be discussed.

The course designed thus intends to provide them an opportunity to acquaint and familiarise themselves with the recent developments in the discipline as well as the functioning of various economic, financial and other institutions. The role of an Economics teacher is crucial in transacting the curriculum in the same spirit and prepares their students in understanding the subject better and performs well in Boards. Use of Statistics in Project Work, Changed approach for teaching Dynamics of Indian Economy in class XI, Understanding in the dealing Mechanisms of Mathematical Portion in Class XII Economics, Analysis of Class XII Papers and discussion on improving Students Performance, Gaming in Economics for effective Joyful Learning, Blooms Taxonomy and Question Paper Design, MDQs, Understanding Budget and Government Policies implicating Economy are major areas that will be addressed during 4 Days Orientation Program for Teachers.

The Manual addresses these significant changes in Curriculum, Assessment Practices and the useful reading material will help you in your classroom Teaching – Learning processes. As Teachers play an important role in implementing all new changes taking places in the curriculum and also the new technologies in the field of education. SCERT and DIET's have been providing IN-Service training in orienting the teachers in implementing the same effectively in teaching–learning processes.

NCERT and CBSE have brought in the desirable changes in the textbooks and examination pattern to connect the text with real world of work in true sense. NCF 2005 also strongly emphasizes on the departure from rote learning to child cantered-processes which is the core of constructive approach. The support material developed by SCERT is an initiative in this direction for capacity building of teachers.

I appreciate the Co-ordinator, Dr. Seema Srivastava, Sr. Lecturer, DIET, Moti Bagh, and team of Contributors who have brought this Manual in the present shape. We extend our deep sense of reverence and gratitude to all concerned authorities; DOE, NCERT and CBSE for extending all academic support for incorporating required content in the Manual for training of Lecturer in Economics. We look forward for your continued supports and academic associations for quality education and capacity building of teachers.

Your comments and suggestions are welcome on the Manual.

Anita Satia Director, SCERT

Preface

The Ethics of learning Economics emphasises ***Learning to Live Together.*** The teaching of Economics makes the rich realise that he is duly bound to support the poor, as poverty anywhere is a threat to prosperity everywhere. The idea of living happily ever after cannot be imagined in the absence of maxim of Living. As "Living to work is more important than working to live" NCERT and CBSE have brought in significant changes in the recent past to make the School Curriculum pragmatic which provides ample scope for a teacher to relate the contents of text with the world of work. The teaching of Economics empowers the students to observe empirically that economic phenomenon of which they may be a part.

SCERT organises Capacity Building/Orientation of teachers on the changes in syllabus, evaluation strategies brought in by NCERT and CBSE from time to time and hard spots identified in the subject every year and provides reading material based on the same.

In the changing scenario teachers have to really plan their methodologies in the light of NCF'2005 which strongly emphasises on construction of knowledge by the child himself/herself and has to think beyond the traditional confines of classroom. The recent CBSE papers have shown a noticeable shift to Application Based Questions which requires a great deal of effort on the part of teachers to prepare them accordingly.

The present Manual has been developed focussing on implementing the significant changes in the Economics Curriculum at Sr. Secondary stage of education and covers the important areas, which the teachers should address for improving the performance of the students. The Manual also provides the teachers to explore, discuss question *etc.* to makes the teaching-learning process more effective. It includes reading material on Project Work in Economics in class XI, OTBA, MDQs and hard spots *etc.* in practical and interesting manner. Evaluation and test items used on different domains are also covered. Teachers should feel free to use this Manual as reference material during the classroom teaching-learning processes.

I would like to congratulate the Co-ordinator, Dr. Seema Srivastava, Sr. Lecturer, DIET, Moti Bagh and the team of Contributors for brining this Manual in present form. I hope this Manual will prove helpful to the teachers in planning and transacting the curriculum in the classroom effectively.

Dr. Pratibha Sharma Joint Director, SCERT

Editorial….

Economics is a subject one can see and relate in every sphere of life. It is a science that analyses the choice making economic behaviour. We have been witnessing the discussions on the declining GDP on various Channels and newspapers in the recent past. As a student of Economics, you have to provide students the rationale behind this to develop a logical understanding to go beyond the Statistical data. Likewise new Budget following debates and discussions on various aspects should form the part of classroom transaction to go beyond the textbooks and also linking the subject with real life situations.

The syllabus is so structured as to help the students to use computers wherever possible *i.e.* for analysis of data, preparation and presentation of project report. Teachers must encourage, guide and facilitate the use of ICT in the subject to be competitive. They themselves should use newspaper clippings, magazines, and other sources as teaching aids and prepare students to relate the contents of text to the world of work. Economy is constantly changing and responding to changes at domestic and at global level. Teachers have to update themselves continuously for preparing students for globally competitive challenges.

Keeping in view the significant changes in Economics Curriculum at Sr. Secondary level and the change in evaluation strategies, the present Manual contains some reading material on selected topics. Techniques and some tips to prepare recently introduced MDQs along with MCQs and VBA on some topics as exemplar, OTBA, Project Work in Economics *etc.* The important point here is that as the syllabus is pragmatic and recent inclusions in evaluation requires teachers to prepare their students accordingly, they themselves have to update on these changes for effective classroom implementations.

An attempt has been made to link economic knowledge with real life situations. The aim is to generate and develop scientific thinking towards the subject. For a very long time, Indian social science textbooks discussed the details of affairs outside India only in world history textbooks. ***This is for the first time in an economics textbook, the details of aspects related to economic development of other countries and particularly India's neighbouring countries are discussed*** .The Manual discusses as to how this has to be taken up in the class with the help of different data sources. An analysis of the Indian Economy will bring out the process by which development takes place. It also helps the student in understanding how poverty and unemployment can be tackled***. Role of Economic Planning in a country's rapid development can be appreciated by the student.***

The Manual also contains an orientation as to how Statistics can be used as an effective tool in Projects for impactful analysis and interpretation. Tips and suggestions will be useful to make it student friendly. The ***Glossary*** given will also provide an easy understanding of various Terms used in the subject, especially for newly promoted teachers.

The most important aspect is how you, as teacher discuss and debate different questions and situations to make students ***think out of box.*** We as teachers have to prepare them for the real world of trade and economy. Linking school education with the real world is the need of the hour and also a challenge for Curriculum Planners and Educationists.

The demand of Economics is due to its importance both for career as well as job point of view. Economics is considered as ever green subject due to its high utility and huge demand in the job markets. Job opportunities for economics students have increased manifolds post reforms, and after amalgamation of world economy. ***You will find the informative write up on the Career and Opportunities for Students of Economics which will be useful for you to provide necessary guidance at this level when students are opting for this subject.*** I owe special thanks to Mr. Mandeep Kumar, PGT, Economics, RPVV, Vasant Kunj for this invaluable addition. I have tried to include FAQs to address the important Issues and concerns.

I take this opportunity to express a deep sense of reverence and gratitude to Ms. Anita Satia, Director, SCERT and Dr. Pratibha Sharma, Joint Director, SCERT for their continuous support and encouragement. I owe special thanks to Dr. Dushyant Kaur, Principal DIET Moti Bagh and all my colleagues; Academic and Administrative Staff for facilitating and extending unconditional support at all stages of completing this assignment. Thanks are extended to Ms. Shivani, Lecturer, Summerfields School, Kailash Colony, for providing invaluable inputs. Special thanks are extended to the team of Contributors, Subject Experts, and their concerned authorities, Faculty of various colleges/Institutes, DDEs and Officials of Directorate, Principals and Teachers of Government Schools, Aided/Public Schools for providing valuable suggestions and support at all stages of development of this Manual. I wish all Stakeholders an insightful reading.

The observations, suggestions and comments related to the Manual are welcome.

Dr. Seema Srivastava
Sr. Lecturer

From the Editor…

It is observed that most (75-85%) of the Economics PGTs presently in Government / DOE set –up Schools have not studied Economics at School level or Graduation level. Orientation Programs / Capacity Building programs and Enrichment Material are essential for their professional growth and enrichment in their subject to understand the ***'Tools of Teaching Economics'***

There are numbers of reasons, the significant ones are:-

- Teaching of Economics is not static, its dynamic (Based on Dynamic concepts) and is affected by all external factors be its social, political, economic *etc.* and it affects every aspect of life of a common man *i.e.* Budget, Increase in Consumer Goods, Hike in Petroleum / Diesel Prices , Change in Interest Rates, REPO rate, Licensing, Increase in Service Tax *etc.*
- It requires analytical ability.
- Mathematical and Statistical portions require a special competence of understanding, analysing, and interpreting data.
- The subject requires a teacher to be continuously updated in terms of what is happening in Economic Scenario at Domestic and at Global level to make his subject context based, competitive & close to the world of reality. Newspapers, net-surfing, exploring economic / business information, Government policies *etc.* are all tools which equip an Economics Teacher to be effective in preparing students for not only Board Exams but in the Job Market /Higher Education which is sufficiently competitive.

YOU NEED TO BE PASSIONATE ABOUT LEARNING AND UPDATING ON WHAT IS HAPPENING IN ECONOMY AT DOMESTIC AND GLOBAL LEVEL TO BRING THAT IN YOUR CLASSROOM TEACHING FOR MAKING THE SUBJECT LIVE, RELEVANT AND MEANINGFUL.
YOU NEED TO BE PASSIONATE ABOUT LEARNING AND UPDATING ON WHAT IS HAPPENING IN ECONOMY AT DOMESTIC AND GLOBAL LEVEL TO BRING THAT IN YOUR CLASSROOM TEACHING FOR MAKING THE SUBJECT LIVE, RELEVANT AND MEANINGFUL.

ECONOMICS (Code No. 030)

(2015-16)

Economics is one of the social sciences, which has great influence on every human being. As economic life and the economy go through changes, the need to ground education in children's own experience becomes essential. While doing so, it is imperative to provide them opportunities to acquire analytical skills to observe and understand the economic realities.

At senior secondary stage, the learners are in a position to understand abstract ideas, exercise the power of thinking and to develop their own perception. It is at this stage, the learners are exposed to the rigour of the discipline of economics in a systematic way.

The economics courses are introduced in such a way that in the initial stage, the learners are introduced to the economic realities that the nation is facing today along with some basic statistical tools to understand these broader economic realities. In the later stage, the learners are introduced to economics as a theory of abstraction.

Realisation of learners' role in nation building and sensitivity to the economic issues that the nation is facing today.

Equipment with basic tools of economics and statistics to analyse economic issues. This is pertinent for even those who may not pursue this course beyond senior secondary stage.

Development of understanding that there can be more than one view on any economic issue and necessary skills to argue logically with reasoning.

	Statistics for Economics		
		13	
	2. Collection, Organisation and Presentation of Data		27
	3. Statistical Tools and Interpretation	27	66
		40	100

	Indian Economic Development		
	4. Development Experience (1947-90) and Economic Reforms since 1991	13 12	18 16
	5. Current Challenges facing Indian Economy	15	60
	6. Development Experience of India Neighbours **(OTBA)**	10	14
	Theory Paper (40+50 = 90 Marks)	**50**	**108**
		10	**12**

Part A: Statistics for Economics

In this course, the learners are expected to acquire skills in collection, organisation and presentation of quantitative and qualitative information pertaining to various simple economic aspects systematically. It also intends to provide some basic statistical tools to analyse, and interpret any economic information and draw appropriate inferences. In this process, the learners are also expected to understand the behaviour of various economic data.

Meaning, scope and importance of statistics in Economics

Unit 2: Collection, Organisation and Presentation of data

Collection of data - sources of data - primary and secondary; how basic data is collected, with concepts of Sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation.

Organisation of Data: Meaning and types of variables; Frequency Distribution.

Presentation of Data: Tabular Presentation and Diagrammatic Presentation of Data: (i) Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and ogive) and (iii) Arithmetic line graphs (time series graph).

Unit 3: Statistical Tools and Interpretation

(For all the numerical problems and solutions, the appropriate economic interpretation may be attempted. This means, the students need to solve the problems and provide interpretation for the results derived.)

Measures of Central Tendency- mean (simple and weighted), median and mode

Measures of Dispersion - absolute dispersion (range, quartile deviation, mean deviation and standard deviation); relative dispersion (co-efficient of range, co-efficient of quartile-deviation, co-efficient of mean deviation, co-efficient of variation); Lorenz Curve: Meaning, construction and its application.

Introduction to Index Numbers - meaning, types - wholesale price index, consumer price index and index of industrial production, uses of index numbers; Inflation and index numbers.

Part B: Indian Economic Development

Unit 4: Development Experience (1947-90) and Economic Reforms since 1991:

A brief introduction of the state of Indian economy on the eve of independence. Common goals of Five Year Plans.

Main features, problems and policies of agriculture (institutional aspects and new agricultural strategy, etc.), industry (industrial licensing, etc.) and foreign trade.

Economic Reforms since 1991:

Need and main features - liberalisation, globalisation and privatisation;

An appraisal of LPG policies

Unit 5: Current challenges facing Indian Economy

Poverty- absolute and relative; Main programmes for poverty alleviation: A critical assessment;

Rural development: Key issues - credit and marketing - role of cooperatives; agricultural diversification; alternative farming - organic farming

Human Capital Formation: How people become resource; Role of human capital in economic development; Growth of Education Sector in India

Employment: Formal and informal, growth and other issues: Problems and policies.

Inflation: Problems and Policies

Sustainable Economic Development: Meaning, Effects of Economic Development on Resources and Environment, including global warming.

Unit 6: Development Experience of India: (OTBA)

A comparison with neighbours

Issues: growth, population, sectoral development and other developmental indicators.

Part C: Developing Projects in Economics

Some of the examples of the projects are as follows (they are not mandatory but suggestive):

(i) A report on demographic structure of your neighborhood.
(ii) Changing consumer awareness amongst households.
(iii) Dissemination of price information for growers and its impact on consumers.
(iv) Study of a cooperative institution: milk cooperatives, marketing cooperatives, etc.
(v) Case studies on public private partnership, outsourcing and outward Foreign Direct Investment.
(vii) Designing eco-friendly projects applicable in school such as paper and water recycle.

The idea behind introducing this unit is to enable the students to develop the ways and means by which a project can be developed using the skills learned in the course. This includes all the steps involved in designing a project starting from choosing a title, exploring the information relating to the title, collection of primary and secondary data, analysing the data, presentation of the project and using various statistical tools and their interpretation and conclusion.

Suggested Question Paper Design
Economics (Code No. 030)
Class XI (2015-16)
March 2016 Examination

Theory: 90 marks + Project: 10 Marks

		Very Short MCQ	Short	Short	Long			%
	or theories; Identify information)						22	25%
							23	25%
							18	20%
							19	21%
								9%
	Total							100

There will be **Internal Choice** in questions of 3 marks, 4 marks and 6 marks in both sections (A and B). (Total 3 internal choices in section A and total 3 internal choices in section B).

	Introductory Microeconomics		
			11
	Consumer's Equilibrium and Demand	16	34

	Producer Behaviour and Supply	16	34
	Forms of Market and Price Determination under perfect competition with simple applications	12	31
		50	110
	Introductory Macroeconomics		
	National Income and Related Aggregates	15	32
			18
	Determination of Income and Employment	12	27
	Government Budget and the Economy		17
			16
		50	110

Part A: Introductory Microeconomics

Meaning of microeconomics and macroeconomics

What is an economy? Central problems of an economy: what, how and for whom to produce; concepts of production possibility frontier and opportunity cost.

Unit 2: Consumer's Equilibrium and Demand

Consumer's equilibrium - meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis.

Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand - (a) percentage-change method and (b) geometric method (linear demand curve); relationship between price elasticity of demand and total expenditure.

Unit 3: Producer Behaviour and Supply

Total Product, Average Product and Marginal Product.

Cost: Short run costs - total cost, total fixed cost, total variable cost; Average cost; Average fixed cost, average variable cost and marginal cost-meaning and their relationships.

Revenue - total, average and marginal revenue - meaning and their relationships.

Producer's equilibrium-meaning and its conditions in terms of marginal revenue-marginal cost.

Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - (a) percentage-change method and (b) geometric method.

Unit 4: Forms of Market and Price Determination under Perfect Competition with simple applications, 31 Periods

Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply.

Other Market Forms - monopoly, monopolistic competition, oligopoly - their meaning and features.

Simple Applications of Demand and Supply: Price ceiling, price floor.

Part B: Introductory Macroeconomics

Unit 5: National Income and Related Aggregates

Some basic concepts: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.

Circular flow of income; Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method.

Aggregates related to National Income: Gross National Product (GNP), Net National Product (NNP), Gross and Net Domestic Product (GDP and NDP) - at market price, at factor cost; National Disposable Income (gross and net), Private Income, Personal Income and Personal Disposable Income; Real and Nominal GDP.

Unit 6: Money and Banking

Money - its meaning and functions.

Supply of money - Currency held by the public and net demand deposits held by commercial banks.

Money creation by the commercial banking system.

Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank, Controller of Credit through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement.

Unit 7: Determination of Income and Employment

Aggregate demand and its components.

Propensity to consume and propensity to save (average and marginal).

Short-run equilibrium output; investment multiplier and its mechanism.

Meaning of full employment and involuntary unemployment.

Problems of excess demand and deficient demand; measures to correct them - changes in government spending, taxes and money supply.

Unit 8: Government Budget and the Economy

Government budget - meaning, objectives and components.

Classification of receipts - revenue receipts and capital receipts; classification of expenditure revenue expenditure and capital expenditure.

Measures of government deficit - revenue deficit, fiscal deficit, primary deficit their meaning.

Unit 9: Balance of Payments

Balance of payments account - meaning and components; balance of payments deficit-meaning.

Foreign exchange rate - meaning of fixed and flexible rates and managed floating.

Determination of exchange rate in a free market.

1. Statistics for Economics, Class XI, NCERT
2. Indian Economic Development, Class XI, NCERT
3. Introductory Micro Economics, Class XII, NCERT

4. Macro Economics, Class XII, NCERT
5. Supplementary Reading Material in Economics, Class XII, CBSE
Note: The above publications are also available in Hindi Medium.

Suggested Question Paper Design
Economics (Code No. 030)
Class XII (2015-16)
March 2016 Examination

S. No.		Very Short MCQ	Short	Short	Long		
	Simple recall questions, to know specific facts, terms, concepts, principles, or theories; identify, define, or recite, information)					25	25%
						25	25%
	knowledge to new situations; Use given content to interpret a situation, provide an example, or solve a problem)					20	20%
						20	20%
						10	10%
	Total						100%

Note: There will be **Internal Choice** in questions of 3 marks, 4 marks and 6 marks in both sections (A and B). (Total 3 internal choices in section A and total 3 internal choices in section B).

Economics is a Dynamic and evolutionary subject, It keep improving day by day and spreading its domain to every aspect of life. Economics is related to each and every person irrespective of what he does or what is his status. Rich and poor, producer and consumer, ruler and citizen, buyer and seller everyone needs economics to do better in life and to reach equilibrium. We Economics Teachers, should feel proud that we are associated with the subject which is most sought after course in university and students studying economics gets highest pay packages and maximum recruitment in campus recruitments. Economics has always been considered as Science as well as Arts. Its theories are based on empirically tested data and are applicable irrespective of time and place.

To make it pragmatic and meaningful in changing scenario at domestic and global level, syllabus is reviewed accordingly. There are some changes in the syllabus which is given below in tabular form along with the impact that has to be taken up in the classroom:

In Year 2014-15 for	In Year 2015-16 for	Net Impact

examination held in March 2015	examination to be held in March 2016	
Unit 2: Collection, Organisation and Presentation of data Collection of data - sources of data - primary and secondary; how basic data is collected; methods of collecting data;	Unit 2: Collection, Organisation and Presentation of data Collection of data - sources of data - primary and secondary; how basic data is collected, with concepts of Sampling; methods of collecting data;	Concept of Sampling has been added this year. Type of samples, Sampling Errors and non sampling errors.
Unit 3: Statistical Tools and Interpretation Relative dispersion (co-efficient of quartile-deviation, co-efficient of mean deviation,	Unit 3: Statistical Tools and Interpretation Relative dispersion (co-efficient of range, co-efficient of quartile-deviation, co-	co-efficient of range has been added this year and question on same can be asked co-ef of range= H-L / H+S
co-efficient of variation)	efficient of mean deviation, co-efficient of variation)	
Lorenz Curve: Meaning and its application	Lorenz Curve: Meaning, construction and its application.	Construction of Lorenz curve has been added and steps for construction of Lorenz curve may be asked

Part B Indian Economic Development

In Year 2014-15 for examination held in March 2015	In Year 2015-16 for examination to be held in March 2016	Net Impact
Class XI Part B Unit 5. Current Challenges facing Indian Economy (OTBA) (Page 234 of Senior school curriculum volume-1 2014-15) (10 Marks)	Class XI Part B Unit 5. Current Challenges facing Indian Economy (Page241 of Year 2015-16 Senior School curriculum volume -1) (15 Marks)	Weightage for the unit has been increased to 15 marks. The final question paper will include questions of 15 marks from unit-5 of Part-B. From this unit, no OTBA questions will be asked in the theory examination.
Unit 6. Development Experience of India - A Comparison with Neighbours (15 Marks) Note: The question paper will include a Section on Open Text Based Assessment (OTBA) of 10 marks from unit-5 of Part-B.	Unit 6. Development Experience of India - A Comparison with Neighbours (OTBA) (10 marks) Note: The question paper will include a Section on Open Text Based Assessment (OTBA) of 10 marks from unit-6 of Part-B.	The question paper will include a Section on Open Text Based Assessment (OTBA) of 10 marks from unit-6 of Part-B. From this unit, no other questions will be asked in the theory examination. The OTBA will be asked only during the annual examination to be held in the March 2016.

Part C: Developing Projects in Economics

In Year 2014-15 for examination held in March 2015	In Year 2015-16 for examination to be held in March 2016	Net Impact
The students may be encouraged to develop projects, as per the suggested project guidelines. Case studies of a few organisations / outlets may also be encouraged. Under this the students will do two (5+5= total 10 marks) comprehensive projects using concepts from both part A and part B.	The students may be encouraged to develop projects, as per the suggested project guidelines. Case studies of a few organisations / outlets may also be encouraged. Under this the students will do only **one (10 marks) comprehensive project using concepts from both part A and part B.**	Students have to do only one comprehensive project of 10 marks using multi disciplinary approach and concepts from both parts.

Change in blueprint of Question paper

Note: There will be Internal Choice in questions of 3 marks, 4 marks and 6 marks in both sections (A and B). (Total 3 internal choices in section A and total 3 internal choices in section B). No of question and marks distribution of questions is same as last year. Total 25 questions will be asked including 2 questions from OTBA (5 marks each).

Suggested Question Paper Design
Economics (Code No. 030)
Class XII (2015-16)
March 2016 Examination

S. No.		Very Short MCQ	Short	Short	Long		%
	Simple recall questions, to know specific facts, terms, concepts, principles, or theories; identify, define, or recite, information)					25	25%
						25	25%
	knowledge to new situations; Use given content to interpret a situation, provide an example, or solve a problem)					20	20%
						20	20%

						10	10%
	Total						100%

Note: There will be Internal Choice in questions of 3 marks, 4 marks and 6 marks in both sections (A and B). (Total 3 internal choices in section A and total 3 internal choices in section B).

In Year 2014-15 for examination held in March 2015	In Year 2015-16 for examination to be held in March 2016	Net Impact
Unit 2: Consumer's Equilibrium and Demand Demand, market demand, determinants of demand, demand schedule, **demand curve**, movement along and shifts in the demand curve;	**Unit 2: Consumer's Equilibrium and Demand** Demand, market demand, determinants of demand, demand schedule, **demand curve and its slope**, movement along and shifts in the demand curve;	Explanation of Demand and its slope to be given. Rightward downward sloping. Straight line or rectangular hyperbola.
Unit-3 Producer Behaviour and Supply Production function	Unit-3 Producer Behaviour and Supply Production function – **Short-Run and Long-Run**	Long Run Explanation is to be given
Cost: Short run costs - total cost, total fixed cost, total variable cost; Average fixed cost, average variable cost and marginal cost-meaning and their relationship.	Cost: Short run costs - total cost, total fixed cost, total variable cost; Average cost; Average fixed cost, average variable cost and marginal cost-meaning and their relationships	Average Cost and its relationship with TC, MC and AVC.
Revenue - total, average and marginal revenue.	Revenue - total, average and marginal revenue - meaning **and their relationships.**	
supply curve	supply curve and its slope	Slope of Supply curve
Unit 7: Determination of Income and Employment Problems of excess demand and deficient demand; measures to correct them - change in government spending, availability of credit.	Unit 7: Determination of Income and Employment Problems of excess demand and deficient demand; measures to correct them - changes in government spending, taxes and money supply.	Change in taxes and money supply to correct problems of excess demand and deficient demand.

Changes in Question Paper Design

In Year 2014-15 for examination held in March 2015	In Year 2015-16 for examination to be held in March 2016	Net Impact

Application : Very short Answer MCQ (1 Mark) – no question Short Answer (3 Marks) – 2 questions	Application **Very short Answer MCQ (1 Mark) – 3 questions** Short Answer (3 Marks) – **1 question**	
High Order Thinking Skills Very short Answer MCQ (1 Mark) – 2 questions	High Order Thinking Skills Very short Answer **MCQ (1 Mark) – 1 question**	

Suggested Question Paper Design Economics (Code No. 030) Class XII (2015-16)
March 2016 Examination
Marks: 100 Duration: 3 hrs.

S. N	Typology of Questions	VSA MCQ 1 Mark	SA-I 3 Marks	S A-II 4 Marks	L A 6 Mark	Marks	%
1	**Remembering- (Knowledge based** Simple recall questions, to know specific facts, terms, concepts, principles, or theories; identify, define, or recite, information)	2	1	2	2	25	25%
2	**Understanding- (Comprehension to** be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase, or interpret information)	3	2	1	2	25	25%
3	**Application- (Use abstract information** in concrete situation, to apply knowledge to new situations; Use given content to interpret a situation, provide an example, or solve a problem)	3	1	2	1	20	20%
4	**High Order Thinking Skills- (Analysis** & Synthesis-Classify, compare, contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)	1	1	1	2	20	20%
5	**Evaluation- (Appraise, judge, and/or** justify the value or worth of a decision or outcome, or to predict outcomes based on values)	1	1	-	1	10	10%
	Total	**10x1 =10**	**6x3 =18**	**6x4 =24**	**8x6 =48**	**100 (30)**	**100%**

Note: There will be Internal Choice in questions of 3 marks, 4 marks and 6 marks in both sections (A and B). (Total 3 internal choices in section A and total 3 internal choices in section B).

Methodology

The study used a detailed questionnaire which dwelt on teachers' perception of the relevance of the course and their expectations. It was designed to understand the scope for enhancing the relevance of the refresher course in terms of course design, content and mode of delivery. The questionnaire was validated by experts who corrected the items for appropriateness and confirmed its suitability for the purpose of this study. It was sent to various state education departments and organisations with a request for disseminating it among the teachers teaching at higher secondary stage. Some of the state education departments cooperated with this venture by issuing circulars to the schools to get the questionnaires duly filled by the respective teachers and also placed the questionnaires on their websites for wider dissemination. The survey received 158 valid responses through e-mail and post from various parts of the country.

Findings of the study:

- **Relevance of the course/training :**

Training is often seen as the solution to all capacity problems; even though there are many situations training alone cannot improve (UN-Habitat, 2012).This necessitates to look into potential participants views on whether conducting of such course/training will enhance their existing knowledge, skills or attitudes.

- **Specifying Training Needs:**

The respondents intended to join the course for updating subject knowledge and as they felt that it is designed specifically for enhancing mathematical skills. Majority of them (82.28 percent) were of the view that the course will enhance their ability to transact the subject in the better manner.

- **Course objectives, design and content :**

Needs and objectives are prime factors when determining subject content [Kirkpatrick and James D. Kirkpatrick, 2009, p.9]. The course content is to be prepared to meet the needs and achieve the objectives of the course. The answers of the potential participants help in ascertaining the topics to be covered or deleted. The respondents generally welcomed the incorporation of practical sessions and the integrated design of the course. It was viewed that the practical sessions should cover more application based questions.

The findings of the NAS seem to have reiterated the suitability of the refresher course for the lectures/post graduate teachers at higher secondary stage in dealing with problems and issues confronting them while transacting economic theory using mathematical expressions. NAS was very effective in establishing the relevance and viability of the proposed refresher course, strengthening the course design and content and in collating the views of stake holders with respect to the use of mathematical expressions to explain economic theories at higher secondary stage.

Introduction

A demand curve is the graphical representation of the demand schedule for a commodity. It is the graphic statement of an individual buyer's reaction on amount demanded at different price in the given point of time. A demand curve has got a negative slope. It slopes downwards from left to right. A demand curve shows the maximum quantities per unit of time that consumers will buy at various prices. In the words of **Richard Lipsey** "The curve which shows the relation between the price of a commodity and the amount of that commodity the consumer wishes to purchase is called Demand Curve. There are following factors responsible for downward sloping of a demand curve:

(1)Law of Diminishing Marginal Utility

***Definition**: The law of diminishing marginal utility has been given by **Alfred Marshall** as "The additional utility which a person derives from an increase of his stock of a commodity diminishes with every increase in the stock that he or she already has." OR*

In other words, "other things remaining same when a person takes successive units of a commodity, the marginal utility diminishes constantly."

In 1854, H. Gossoon explained this law after Alfred Marshall in the following words; "other things remaining same, marginal utility becomes smaller and smaller as the more units of a commodity a person has."

EXPLANATION OF THE LAW:

The law can be explained by the following example; Suppose that, in the month of June when it is very hot. A student comes to home from his/her college and starts drinking water because he/she is very thirsty. First, glass of water gives him lot of satisfaction. In other words, the first glass of water has a great utility for him/her. If he/she drinks the second glass the utility will be less than the first one. If he/she takes the third glass then the utility will be less than the second glass and so on

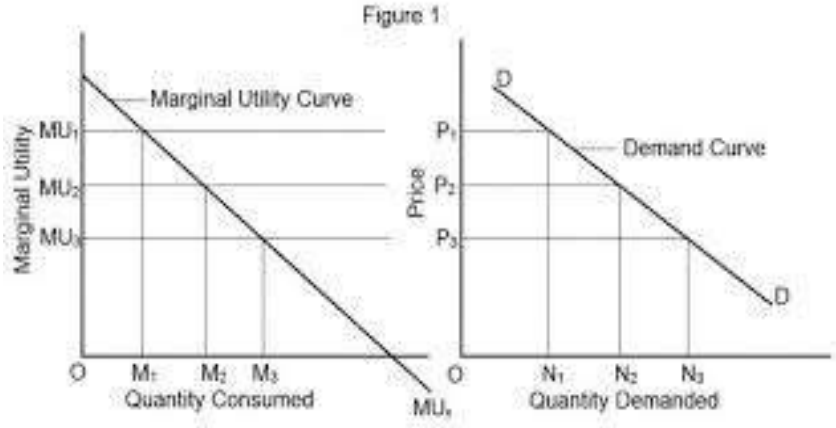
The law states that a consumer derives less and less satisfaction (utility) from the every additional increase in the consumption of a commodity ,however, a consumer always tries to equate marginal utility with price (consumer's equilibrium).

When price of a commodity falls the consumer's price-marginal utility equilibrium is disturbed *i.e.* price becomes smaller than marginal utility.

In order to be in equilibrium, the consumer will buy more of it so that the marginal utility falls with the rise in the amount consumed. So long the price of a commodity falls, the consumer will go on buying more of the commodity so as to reduce the marginal utility and make it equal with new price.

Thus the shape and slope of a demand curve is derived from the slope of marginal utility curve.

Figure 1



(2)Income Effect

Another cause behind the operation of law of demand is income effect. As the price of a commodity falls, the consumer can buy the same amount of the commodity at less amount of money. After buying his required quantity he is left with some amount of money.

This constitutes his rise in his real income or purchasing power. This rise in real income is known as income effect. This increase in real income induces the consumer to buy more of that commodity. Thus income effect is one of the reasons why a consumer buys more at falling prices.

(3)Substitution Effect

When the price of a substitute commodity falls, it becomes relatively cheaper than other commodities. The consumer substitutes the commodity whose price has fallen for other commodities which becomes relatively dearer.

For example with the fall in price of tea and coffee price being constant, tea will be substituted for coffee. Therefore, the demand for tea will go up.

(4)Entry of New Consumers

When the price of a commodity falls many other consumers who were deprived of that commodity at the previous price become able to buy it now as the price comes within their reach. For example the demand of colour TV increases with a remarkable fall in price of it. The opposite will happen with a rise in prices.

(5)Multiple use of Commodity

There are some commodities which have multiple uses. Their uses depend upon their respective, prices. When their prices rise they are used only for certain selected purposes. That is why their demand goes down.

For example electricity can be put to different uses like heating, lighting, cooling, cooking etc. If its price falls people use it for other uses other than that. A rise in price of electricity will force the consumer to minimize its use. Thus with a fall and rise in price of electricity its demand rises and falls accordingly.
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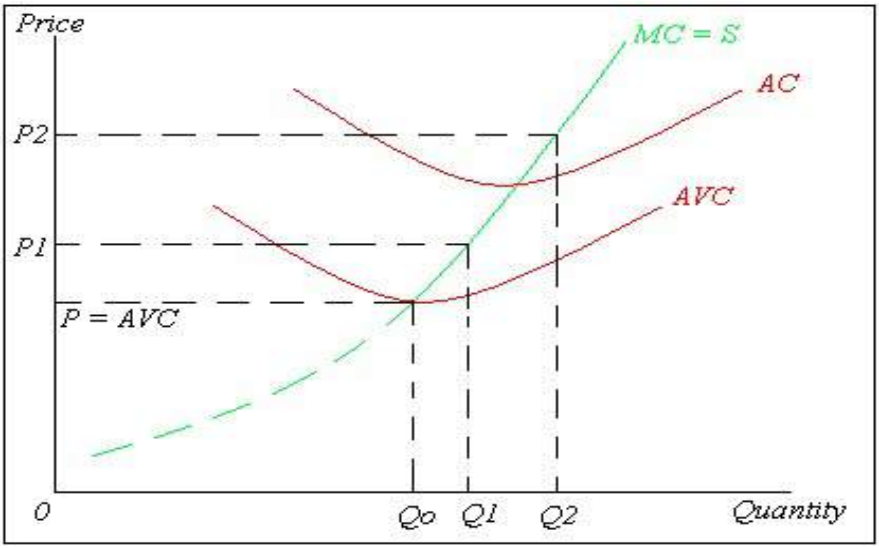
Why Supply Curve has a Positive Slope?

The direct relationship between price of a commodity and its quantity supplied can be explained by the following factors:

1. **Rising Marginal Cost (MC) of Production**



The supply curve slopes upward, reflecting the higher price needed to cover the higher marginal cost of production. The higher marginal cost arises because of diminishing

marginal returns to the variable factor. When the Law of diminishing marginal returns applies, a firm's marginal cost keeps rising. A firm will not find it profitable to increase output if it cannot , at least, cover the additional cost (i.e, MC) that are incurred. As the price of the product rises, the firm can increase its output until the cost of producing an additional unit (MC) rises to the level where it is first covered by the price at which that unit can be sold. In brief, because the cost of rising output increases, as more is being produced already, higher and higher prices are needed to induce firms to make successive increases in output. The result is a positively sloped curve, indicating that higher the price the more will be produced.

2. **Higher Prices Mean More Profits**

As the price of a commodity goes up, profit margin for the producer increases. Rising profit margins work as an incentive to produce more and offer a larger quantity for sale.

3. **Incentives to other Firms**

Rising prices work as an incentive not only for the existing firms to expand the level of output, but also induce new firms to enter the industry. With the entry of new firms, commodity will be produced in a larger quantity and hence supply increases.

A Comparative Study of Why Demand Curves are Downward Sloping and Supply Curves are Upward Sloping (with an Example).

To consider why demand curves are downward sloping and why supply curves are upward sloping we might need to be reminded of just who in an economic society is represented by the demand and supply curves themselves. Demand curves are intended to represent the consumption preferences of households and individuals for finished goods. Supply curves are intended to represent the production preferences of firms. We also need to recall why households consume: to receive some level of satisfaction - which economists refer to as utility. And firms produce to receive their unique form of satisfaction: profit - which depends on output prices and input costs.

Demand Curves are Downward Sloping

First, what does it mean to us in terms of prices and quantities for a demand curve to have a negative, or downward, slope? It means that as prices rise, quantity demanded falls and as prices fall, quantity demanded rises – the movement of the two variables is negatively correlated. That makes intuitive sense to most of us. We might even think of this in terms of scarcity, if there's just one unit of a good, if it's unique, we're likely willing to pay more for it than if it's ubiquitous, in which case we don't hold it in as high esteem or attribute to it as high a level of value or price.

Beyond this, in order to explain why demand curves are downward sloping we need to think about what drives demand for a product. There are numerous determinants of demand of course, but in short, we demand a good or service because we gain some amount of utility through its consumption and we're typically willing to pay more for something that gives us a high amount of utility and less for something that gives us a lower amount of utility. So think about the amount of utility we gain from consuming one more unit of a good – the marginal utility; is it more or less than the utility we gained from consuming the prior unit. In general, it's less.

Think about buying and eating a sandwich when you're REALLY hungry. You expect to receive a high amount of utility from that sandwich, but the next sandwich you eat, though it may be the exact same type of sandwich, gives less utility; in part because the first sandwich already went a long way towards satisfying your hunger. So if you've just come in from a long day's labor without having eaten, maybe you'd pay Rs.10 for the first sandwich – it's a lot, but without it you're about to starve. You might even be willing to pay a lot for the second sandwich, let's say Rs.8.00, but the third sandwich is likely to be a different story. By now you're largely satisfied and you may only be prepared to pay Rs.6.00 for the third sandwich and even less, maybe Rs.4 for a fourth sandwich, and so on. We can even suppose that at a certain level of consumption, say the sixth sandwich, you wouldn't pay anything. And at the seventh sandwich someone would have to pay you Rs.2 to get you to eat it! It can be explained with this help follow by table I and diagram:

Table - I

QUANTITY of Sandwich	PRICE
1	10
2	8
3	6
4	4
5	2
6	0

What we've just described is the law of ***Diminishing Marginal Utility***, virtually synonymous with the law of

diminishing marginal returns and similar to the law of diminishing marginal productivity. We also just defined a table suggesting what you might pay for various quantities of a Good and that table can be used to form the demand curve for the good.

o
o

So, in this formation we see why the demand curve for an income-normal Good, like a sandwich, would be expected to be downward sloping. It's all about diminishing marginal utility and our willingness to pay for that utility. ***Obviously, we're not offering a rigorous mathematical proof here; we're just discussing this in very simplistic terms.***

What does it mean for a curve to be upward sloping or to have a positive slope? It means that as the price rises, the quantity also rises, and vice versa. We might think of this in terms of motivation: if you want someone to put in the extra effort required to produce more goods, you might need to pay them more per unit. That's pretty simplistic and doesn't really get at the underlying issue of the firm seeking greater utility, or profit, but it's not altogether irrelevant. We need to return to the law of diminishing marginal returns or in this particular case, the law of diminishing marginal productivity. This law suggests that as we employ more units of any particular factor (input) of production, the productivity of that factor declines. The example of a very small sandwich shop in which the owner, sandwich maker, order taker, server and cashier – all are one /same ,is undertaken. In this set of roles he / she might be able to produce 15 sandwiches an hour. If an employee is added for assistance, and that person only makes sandwiches, then it can be assumed / we can suppose the person's productivity should be greater than the owner – maybe they can make 20 sandwiches per hour – but this presumes that the size of the sandwich shop can accommodate another worker, which is to say, that before adding the worker owner was underutilizing the capital investment represented by the sandwich shop itself.

So, as a business owner, I like the added production. If I pay the worker the same wage I pay myself, say Rs.10 per hour, then the per unit wage cost just went down from Rs.0.66 per sandwich (Rs.10/15 sandwiches) to Rs.57 [(Rs.10
+Rs.10)/(15 + 20 sandwiches)]. If I then add another worker expecting that I'd see a similar increase in productivity (and decrease in per unit cost), I might be surprised. Remember that it was a very small sandwich shop, in fact it's really just big enough to accommodate 2 workers without getting into each other's way, but it was not known before that until I add that additional worker. So I add the 3rd worker and find that this person only contributes another 15 sandwiches per hour, and I add yet another and find that the 4th worker only adds another 10 sandwiches per and the 5th worker actually decreases overall production by 5
sandwiches per hour.

What is projected here is a demand curve is created for labor as an input to production, but that is also shown that as the quantity of output rises, the cost of producing the good also rises; once we're fully utilized our capital as shown in following Table - 2.

Table - 2

WAGE	LABOUR	QUANTITY	COST/UNIT
10	1	15	.67
10	2	35	.57
10	3	50	.60
10	4	60	.67
10	5	55	.91

So unless the producer is prepared to accept less profit per unit, which would be the result of increasing input costs with a stable price per unit for the finished good, then price will have to rise. In this case, it is seen that the cost of producing a sandwich begins to increase from Rs.0.57 to Rs.0.91 and we can suppose that the cost of other inputs to production might also rise such that a producer might have to consider the following Table - 3 for prices and quantities of sandwich production:

QUANTITY of Sandwich	PRICE of Sandwich
10	3
20	4
30	5
40	6
50	7
60	8
70	9
80	10

O
O

This is why supply curves must be upward sloping.

If we now try to put this market together in one graph so that we can see both supply and demand, we'd first have to aggregate the quantity and price preferences of the lone consumer in the demand discussion, so that it approximately states the demand for an entire market. It can be done by forming a new table showing both Quantity Demanded and Quantity Supplied aside given price levels in following:

Table - 4

PRICE	QUANTITY DEMANDED	QUANTITY SUPPLIED
3	80	10
4	70	20
5	60	30
6	50	40
7	40	50
8	30	60
9	20	70
10	10	80

P
O
Q
P
O
Q

Mathematically put: If demand function is

Qd = a-bP

And supply function is Qs = c + dP

Then, equilibrium is where: Qd = Qs ∅ a – b P = c + dP

∅ a – c = P(d +b) ∅ P = (a-c)/(b +d If demand function is

Qd = a-bP

And supply function is Qs = c + dP

Then, equilibrium is where: Qd = Qs ∅ a – b P = c + dP

∅ a – c = P(d +b) ∅ P = (a-c)/(b +d Sample question

Explain the theory of Consumer's Equilibrium with the help of an example other than covered above.

INTRODUCTION

By "Returns to Scale" it is meant that behaviour of production or returns when all productive factors are increased or

decreased simultaneously and in the same ratio. When all inputs are changed in the same proportion, we call this as a change in scale of production. The way total output changes due to change in the scale of production is known as Returns to Scale. Thus, whereas in the short-run change in output is associated with the change in ***factor proportions***, and change in output in the long-run is associated with change in the ***scale of production***. Thus Returns to Scale is the long-run concept.

A layman would perhaps expect that with doubling of all productive factors, the output will also double and with trebling of factors of production, production would also be trebled, and so on. But actually this is not so. In other words, when all inputs are increased in the same proportion, the total product may increase at an increasing rate, constant rate or diminishing rate. ***Accordingly the Returns to Scale could be 'increasing, 'constant', or 'decreasing'.***

LAW OF RETURNS TO SCALE

Definition

The law of returns to scale describes the relationship between outputs and the scale of inputs in the long-run when all the inputs are increased in the same proportion. According to the ***Roger Miller***, the law of returns to scale refers "to the relationship between the changes in output and proportionate change in all factors of production". The firm increases its scale of production by using more space, more machines and labourers (as a input) in the factory, to meet a long-run change in demand.

Returns to scale explains the behavior of output when all the factor inputs are changed in the same proportion. Alternatively Returns to scale refers to the increase in output when all the factor inputs are increased in the same proportion. In this way the returns to scale may be increasing

2. **A worker works with given tools and implements.**
3. **Technological changes are absent.**
4. **There is perfect competition.**
1. **All factors (inputs) are variable but enterprise is fixed.**
5. **The product is measured in quantities.**

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5. **The product is measured in quantities.**

Three Different Cases

1. **Increasing Returns to Scale**
2. **Constant Returns to Scale an**
3. **Decreasing Returns to Scale.**

Increasing Returns To Scale:

This situation occurs if a percentage increases in all inputs results in a greater percentage change in output. For *e.g.* a 10 % increase in all inputs causes a 20% increase in output.

By increasing its scale, the firm may be able to use new production methods that were not feasible at the smaller scale. For instance, the firm may utilize sophisticated, highly efficient, large-scale factories. It also may find it advantageous to exploit specialization of labour at the large scale. This is shown in the following example.

Inputs (Units)	**Output (Units)**
2 capital + 2 Labour	**200**
4 Capital + 4 Labour	500

The table shows that the input is increasing by 100%, on the other hand the output is increased by 150%. This shows the increasing returns to scale. As changes in the output is more than the change in input.

Causes of Increasing Returns to Scale

- **Indivisibilities**: According to economist like Kaldor, learner, knight and Joan Robinson, an important cause of indivisibility. Indivisibility means that certain factors are available only in some minimum sizes. Certain inputs particularly machinery, management *etc.* are available in large and lumpy units. Such inputs cannot be divided into small sizes to suit the small scale of production. For *e.g.* there cannot be half a machine, half a computer or half a manager. Such inputs have to be employed even if the scale of production is small. Therefore, as the

scale of production increases, these indivisible factors are utilized better and more efficiently. This leads to increasing returns to scale.

2 Greater Specialization: As the scale of production increases, the efficiency of labour increases due to division of labour and specialization of labour. Similarly, when the scale of production increases, it becomes possible to use specialised machines and the services of specialized and expert management.

This results in productivity of inputs leading to increasing returns to scale. ***According to Prof. Chamberlin*** , Returns to Scale in the initial stages increases due to the fact that the firm can introduce the specialization of labour and machinery.

Constant Returns to Scale

Constant Returns to Scale: It occurs if a given percentage change in all inputs results in an equal percentage in output. For instance, if all inputs are doubled, output also doubles; a 10% increase in inputs would imply a 10% increase in output; and so on. Under constant returns, the firm's input are equally productive whether smaller or larger levels of output are produced.

A common example of constant returns to scale occurs when a firm can easily replicate its production process.

For, instance a manufacturer of electrical company finds that it can double its output by replicating its current plant and labour force, that is, by building an identical plant beside the old one.

Similarly, chain of drycleaners can increase its volume of service by increasing its number of outlets (with designated number of workers per outlets). So long as all necessary inputs are readily available, the firm can increase in proper proportion to inputs via replication, and constant returns to scale will hold. This can be explained in the following example.

Inputs (Units)	Output (Units)
2 capital + 2 Labour	**200**
4 Capital + 4 Labour	**400**

The above example shows that as the inputs (i.e. labour and capital) are increased to 100%, output also increased to 100%.

Causes of Constant Returns to Scale

- **Limits of Economies of scale:** Increasing returns to Scale cannot go on indefinitely. There is a limit to these economies of scale when the economies of scale are exhausted and diseconomies are yet to start, there may be a brief phase of constant returns to scale.
- **Economies of Scale:** It refers to the situation where increases in the scale of production give rise to certain benefits to the producers.
- **Divisibility of Inputs:** Constant returns to scale may occur in certain productive activities where the factors of production are perfectly divisible. For example, we may double the output by setting up two plants (factories) which use the same quantity and the same type of workers, machinery, raw materials and other inputs.

Decreasing Returns to Scale:

It occurs if a given percentage increase in all inputs results in a smaller percentage increase in output. The most common explanation for decreasing Returns involves organization factors in very large firms. As the scale of firms

increases, the difficulties in Coordinating and monitoring the many management functions. Coordinating production and distribution of 12 products manufactured in four separate plants typically means incurring additional costs tor management and information systems that would be unnecessary in a firm one-quarter size. As a result, proportional increases in output require more than proportional increases in inputs. The following example will explain decreasing returns to scale.

Inputs (Units)	Output (Units)
2 capital + 2 Labour	200
4 capital + 4 Labour	300

The above shows, that inputs ate increases to 100% but the increase output is 50%, which shows that there is decreasing returns to scale.

Causes of Decreasing Returns to Scale

1. **Complexity of Management**

Increase in the scale of production on beyond a point may create the problem of proper management, leading to a decrease in managerial efficiency. Large scale

of production creates the problem of lack of proper, larger bureaucracy, red tapism, lengthy Chain of Communication and command between the top management and men on the production line. As a consequence of all these, the overall efficiency of management decreases.

2. **Entrepreneur is a Fixed Factor**

According to some economist decreasing returns to scale arise because entrepreneur is a fixed and indivisible factor. An increase in scale may come to a point where the abilities and Skills of the entrepreneur may be fully utilised. An increase in the scale beyond this point may decrease the efficiency of the entrepreneur. This gives rise to diseconomies of scale.

3. **Exhaustibility of Natural Resources**

Another factor responsible for the diminishing returns in some activities is the limitation of natural sources. For example, if we double the fishing fleet, the number of fish Catch will not double because the availability of fish may decrease when fishing is carried out on an increasing scale.

Abstract

MDQs are newly introduced in CBSE - XII syllabus since 2014-15 session. MDQs are Interdisciplinary questions and are very important in a subject like Economics - which is actually a study of mankind in the ordinary business of life.

Multidiscipline means Economics is related to other subjects of social science. whereas, Interdisciplinary questions includes questions which can be answered both from Micro concepts and Macro concepts. The current design of question paper for CBSE (2015-16) shows that, 20% questions will be based on HOTS and 25% questions will be based on application. and 10% questions will be based on Evaluation. (i.e. 50% of the questions will be skill based) For example, a question like:-

"Saving is a boon or bane" - Comment.

- This is a Interdisciplinary question as while answering this question both micro and macro concept will be used.

Multidisciplinary questions deals with comprehension of abstraction information in concrete real life situation and finally interpret the result. The idea behind introducing this unit is to enable students to develop the ways and means by which the current cultural/ economic / geographical problems can be analysed using their concepts on simple economic theories [viz. Investment Multiplier, Law of Demand etc.]

For Example the 2014-15 CBSE question asking the impact of "Jan-Dhan Yojana" as introduced by PM Modi, on the National Income - is a multidisciplinary question.

Introduction of MultiDisciplinary Questions in Economics at Class XII Level We all know that today the subject economics is evolving very fast so the teachers teaching have to keep in pace with the rapid changes. As life-long learners, we have to constantly upgrade and hone our teaching-learning skills so as to keep our best

foot forward. CBSE as its latest innovative practice in 2015 has introduced the MultiDisciplinary Questions in Economics, which call curriculum programme for the teacher.

Keeping abreast with the latest innovative initiatives in the field of examination and evaluation, the strong emphasis on the revised Bloom's Taxonomy while framing questions has to be taken cognizance of weightage on Remembering and understanding questions has been reduced from 30% and 50% to 25% each. Weightage on application based questions remains at 20%. HOTS questions have a

weightage of 20%. Latest addition to the typology of questions are MDQs with a weightage of 10%.

In a nutshell, 50% of the question paper will not be based on challenging questions which would be thought provoking and not based on note memory.So as effective teachers we have to accept all challenges involved and equip and facilitate our students to think for themselves. Best teachers in fact are those who help the students-

- to better understand,
- to become familiar with words that require HOTS
- to achieve better.

If HOTS questions involve the learning of complex judgmental skills which are logical, reflective and creative, 'MultiDisciplinary Questions (MDQs) link some aspect of one unit of the syllabus to some aspect of the other unit/units of the syllabus. Such linkages are required to develop wider perspective of Economics.

Thus the students are to be well versed with all the 9 units of the syllabus to understand the linkages. Some are the days of selective study and questions based on note memory. So arise, awake and crack them!

Start with the following steps-

1. Introduction of MDQs
2. Presentation of MDQs
3. Group work on the construction of MDQs. Each group of 5-6 students will be given a newspaper clipping (Refer the Exemplar Cuttings in the following pages) and asked to frame 3 MDQs on it having
    - 1 Question of 3 marks (SA)
    - 1 Question of 6 marks (LA)

Total weightage of the three questions to be 10 marks.

This exercise will expose them to the framing of MDQs and give them a hands-on experience with the MDQs.

Why MDQs are introduced in the Syllabus?

The objective of introducing MDQs in the current changed syllabus of CBSE - Economics is to enable the students to apply their knowledge in predicting the economic problems.

The Problems faced by the Teacher : Teachers fail to understand the philosophy behind the introduction of MDQs in the syllabus where there is already almost 45% weightage is given to Application based questions and HOTS question.

So, now the teachers have to be properly trained to handle such MDQs. Orientation of the students are required to enable them to appraise, judge and justify the given abstract (economic/non-economic) situation and provide an economic solution for it.

Sample Clip

'Neoclassical economics is incomplete humans are not always rational or selfish'

Varun Gauri is senior economist at the World Bank and co-author of 2015's World Development Report (WDR), the World Bank's flagship annual report known for economic policy considerations – but this year, uniting psychology, sociology, economics, behavioural science and cognitive science in 'Mind, Society, and Behaviour'. Speaking with ***Subodh Varma****, Gauri discussed the Bank's new approach, why understanding real behaviour is crucial and how it's time to rework neoclassical economics.*

Q&A

■ Why is the World Bank arguing for a redesign of policy – 'based on careful consideration of human factors'?

Well, years of experience have shown that some assumptions made by economists while designing policies are not aligned to reality.

For instance, it was assumed that man is rational and driven by selfish goals – but it's been shown this may not always be the case. Man may act socially, collaboratively and not selfishly in certain contexts. We've found if you factor in the mind and behaviour of humans, you end up saving money.

Neoclassical economics, it seems, was incomplete. Some assumptions made by it need to be changed with changing times.

With greater information available, such changes are necessary.

■ What are key messages of the World Development Report 2015?

The key message is that people's thinking and behaviour have to be accommodated in policy making and execution.

Just as those who sell commodities make a big effort to understand consumers, development policies also must. To change mental models, Swachh Bharat, for example, is a programme to change prevailing behaviour. A whole new set of tools should be deployed to address the minds of people. This includes entertainment education, presenting leadership models, simplification of messages, reminders, etc.

In Columbia, a direct cash transfer programme for higher education wasn't taking off. Then the government changed the system by holding back cash and giving it as a lump-sum just before the admissions process began.

This led to immediate success because people needed the money at that time.

■ So, is this just a marketing fix? Is there no change in policies?

No, we're not going to just stamp a happy face on old policies and push them all over again – policies will be changed according to contexts.

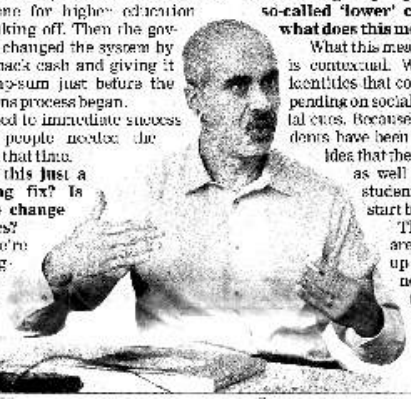
In the World Bank, we're putting together a Behavioural Insights Team (BIT). Such teams provide inputs about timing of messages, salience, social factors, etc. They provide feedback to tweak policies, so policies themselves undergo changes in the process.

The ultimate goal is to make a policy successful – that can happen only if the policy is right.

■ In WDR 2015, you also discuss how revealing caste identities of students in a mixed group depressed scores of so-called 'lower' caste students – what does this mean?

What this means is that identity is contextual. We have multiple identities that come to the fore depending on social and environmental cues. Because 'lower' caste students have been imbued with the idea that they will not perform as well as 'higher' caste students, they actually start behaving like that.

The implications are that building up self-esteem is necessary to break through barriers – and development policy needs to account for this.



Read the article in the class and relate it to the different topics in Economics keeping in mind the concept of MDQs. Encourage students to reflect and discuss to arrive at certain conclusions. Teacher has to act as a facilitator.

[* Keep discussing such issues and concern in classroom to make the students develop analytical ability which is at the core of this subject]

MULTI – DISCIPLINARY QUESTIONS (MDQ)

1. Which central problem of an economy is directly affected when government through its budget takes steps to reduce inequality in income? Explain
2. Examine the effect of large scale inflow of foreign capital on (i) PPC (ii) GDP
3. Which central problem of an economy is directly affected when government, through its budget, tries to influence allocation of resources?
4. If the budgetary policy of the government shows a big shift from indirect taxation to direct taxation analyse the impact of this government's move upon the central problem of 'For Whom'.
5. If a leading MNC intends huge FDI in the Indian economy. How will this affect (i) the growth of GDP of India (ii) PPC
6. Explain with the help of utility analysis, that a consumer will like to buy more of the good on which government has imposed 'maximum price ceiling'?

7(a). Show with the help of utility analysis, that a buyer of a good *service will like to buy less of that good* service on which government has put 'minimum price ceiling.

7(b). Suppose price elasticity of demand varies between zero and infinity, as price changes. In which type of market it is likely to happen. Explain

8. On account of a fall in the price of crude oil in the international market, price of diesel has fallen in the domestic market. What kind of change in terms of the budget line of :- given consumer will take place, who spends his entire income on goods X and Y, of which X is diesel ? Explain.
9. Government of India has opened the domestic auto sector to the foreign investors. Analyse the changes in the market structure in the domestic auto market.
10. If the personal income rises due to the transfers from the government. Does it imply that the Household's should lower the consumption of inferior good?
11. RBI raises SLR. Explain its impact on national income.
12. What will be the impact of a cut in the repo rate from 8% to 7.75% upon the automobile market in India?
13. Prime – Minister's Jan Dhan Yojana has found massive response in India. Analyse its impact on the credit

creation capacity of the commercial banks.

14. What is the effect of an improvement in the 'balance of trade' upon GDP? Explain.
15. Explain the impact of devaluation of domestic currency on country's national income.
16. If the cash subsidy on domestic LPG is withdrawn, how it will impact the welfare level of the poor masses?
17. What will be the impact of recently launched 'Clean India Mission' (Swachh Bharat Abhiyan) on the PPC of the economy and Why?
18. Government of India has recently launched 'Jan-Dhan Yojana' aimed at every household in the country to have at least one bank account. Explain how deposits made under the plan are going to affect National Income of the country.
19. What is likely to be the impact of "Make in India appeal to the foreign investors by the Prime Minister of India, on the PPF of India? Explain.
20. Other things remaining the same, when in a country the price of foreign currency rises, National Income is:
    (a) Likely to rise
    (b) Likely to fall
    (c) Likely to rise and fall both **(d)** Not affected

Value-Based Questions (VBQ)

1 Resources in a country are more efficient in the production of tanks, as compared to wheat. In the situation of natural calamities like floods or famines, what should be produced more?

2 An economy is operating on PPC. Is there any method to increase the agricultural production as the land is fully utilized?

3 Government of a state intends to start a chemical industry in a rural area. The new factory would run through the wet lands bordering a local river, where a wide range of creatures live. Environmentalists are against the project. What will be the opportunity cost of this project? Which moral value is violated here?

4 What awareness should be brought in the society to reduce their demand for petrol and conserve this useful source of energy?

5 'A rise in the BPO services in the economy can be a good source of supply of foreign currency'. Justify

6. An individual started his own business and started earning Rs 2 lakh per month. He worked 7 days a week for 12 hours a day. What will be the real cost incurred in the business?
7. What is the moral responsibility of the seller while serving the society?
8. How does price discrimination under monopoly be of any help to the society?

9 By providing services like street lighting, maintenance of law and order ….etc., which value is observed in the government's attitude towards the public and why?

10. Explain the contribution of happy families towards GDP, as an indicator of welfare?
11. 'Introduction of ATM outlets has brought about – wasteful expenditure' Justify / Refute.
12. Indian economy is in the grip of rising prices, which in turn is affecting the poor adversely. Suggest two measures to promote social welfare.
13. Due to a consistent rise in the price of essential commodities like onions and potatoes, explain the role of the government in this context to reach the poor?
14. A big rise in the FER adversely affects the imports in the country. How can this rise be managed and by whom in the interest of social welfare?

USE OF NEWSPAPER / MAGAZINE CUTTINGS FOR CLASS ROOM INTERACTIONS*

***Similar exercise of collecting relevant Resource Material should be taken up by every teacher and be discussed/debated in the classroom to bring the subject closer to the happenings in the Economy at domestic and at global level and provide them a broad horizon.**

HINDUSTAN TIMES, NEW DELHI
SATURDAY, JANUARY 24, 2015

Non-tax revenues key to 4.1% fiscal deficit target

BRIDGING THE GAP With tax collection low, govt pinning hopes on PSU stake sales and spectrum auction proceeds

Mahua Venkatesh
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NEW DELHI: Achieving the fiscal deficit target of 4.1% of gross domestic product (GDP) this year depends critically on two non-tax sources — divestment revenues, and earnings from the sale of telecom radio waves.

Sputtering tax collection which has so far fallen short of the targeted 19% growth encilled in the budget has aised concerns among north lock policymakers, barely four eeks before finance minister .run Jaitley presents his first ıll budget on February 28.

With just two months left for ne fiscal year to end, the govnment is racing against time meet its ambitious target of ollecting ₹43,425 crore by elling stakes in state-owned ompanies.

While the Cabinet has approved plans to sell 10% stakes in Coal India Ltd, which at current prices is likely fetch over ₹23,000 crore, the government is battling resistance from powerful labour unions.

Similarly, despite the Cabinet's approval last year to sell 5% shares in ONGC, a definitive subsidy-sharing formula is yet to be finalised.

Meanwhile, the government has raised excise duty on petrol and diesel four times since October — a move that will generate about ₹30,000 crore.

"It is important to convey that the Centre is serious about fiscal discipline, which is crucial for the global investor community," a senior government official said on condition of anonymity.

It is crucial to contain the deficit, especially amid sovereign credit rating agencies' punches about the precarious state of India's public finances.

However, experts opine the government may eventually fail in the attempt, given the current revenue trends.

"It has been a tough challenge right from the start. The government may have to resort to expenditure cuts which could hurt GDP growth marginally. But, this is a small price to pay, and can be made up in the next fiscal. So, it would be practical to stick to the fiscal deficit target this year," said Rajiv Kumar, senior fellow, Centre for Policy Research.

Crisil's chief economist DK Joshi pointed out that this would be challenging despite falling global crude prices, as revenue from other sources including disinvestments and tax collection have not been buoyant.

THE CHALLENGES

- It is crucial to contain the deficit, especially amid sovereign credit rating agencies' punches about the precarious state of the country's public finances.
- The government struggling to meet its ambitious target of collecting ₹43,425 crore by selling stakes in state-owned companies
- Though the Cabinet approved selling of 10% stakes in Coal India Ltd, which is likely fetch over ₹23,000 crore, government faces resistance from powerful labour unions
- The regime has raised excise duty on petrol and diesel four times since October — a move that will generate about ₹30,000 crore

Govt draws roadmap for skill development

IN PIPELINE Plan includes launch of PM's fellowship scheme, industry-driven curricula, entrepreneurship lessons in schools

SPECIAL

Shishir Gupta and
Gaurav Choudhury

NEW DELHI: The government has drawn up an ambitious roadmap to enhance skill levels of millions of people who join the queue of job hopefuls every year.

The plans involves integrating skill enhancement and entrepreneurship in the syllabi at the school level, set up 2,500 multi-skilling institutions in the public private partnership mode, and setup institutes of entrepreneurship development in various centres including upcoming smart cities among others.

The plan also includes setting up skill universities (one for each region including one in north-east) to develop large numbers of qualified instructors, reform and reorient existing industrial training institutes (ITIs) with industry-driven relevant curricula and leverage 25% of corporate social responsibility (CSR) funds and defence offset in skill development projects.

A National policy on skill development and entrepreneurship will be finalised by March 31, 2015, sources told *HT*.

Sources said that the government is likely to launch a Prime Minister's fellowship scheme for skilling and innovation. A sustained national campaign will also be launched to make vocational training aspirational with celebrities as brand ambassadors.

For entrepreneurship, the plan involves integrating entrepreneurship training in schools alongside vocational training.

GROOMING THEM YOUNG

The government is planning to introduce skill enhancement courses at the school level

15 mn
No. of people who join the workforce every year

120 mn
Estimated skilled workers required between 2013 and 2022

ON THE CARDS

- Institutes of entrepreneurship development in various centres
- Skill universities (one for each region including one in north-east) to develop qualified instructors
- Leveraging 25% of CSR funds and defence offset in skill development projects

2,500
New multi-skilling institutions planned in public private partnership

government will likely support setting up incubation and research parks and enable credit linkages through banks.

The government is also drawing up plans to provide market-like support to tech start-ups to create one million "digital entrepreneurs".

According to estimates between 2013 and 2022, India will have to skill 120 million people in non-farm sectors, with the highest requirement skilled labour to come from the construction sector (31 million) followed by retail (17 million) and logistics (15 million).

During 2005-12, India added only 15 million jobs, a quarter of the figure added in the previous

Of India's 1.2-billion population, 60% are of the working age. And of the 15 million individuals who join the queue of job seekers every year, only 5% undergo vocational training.

The scheme for adoption of ITIs through public-private partnership is also likely to be revamped.

In the earlier scheme, launched in 2007, about 1,396 institutes were to be developed by involving the industry, which would adopt them while the government would provide a grant of ₹2.5 crore for each of them. The scheme did not take off as planned because it did not have much involvement of the state bureaucratic structure, which is

Govt committed to fiscal discipline: FM

BUSINESS HOURS Meets leading economists, who stress on boosting domestic consumption to spur GDP growth

HT Correspondent

NEW DELHI: Finance minister Arun Jaitley on Tuesday said the government is committed to fiscal discipline, and that the sharp decline in international oil prices and government initiatives would help keep the current account deficit (CAD) at comfortable levels.

Addressing a pre-budget meeting with economists, Jaitley said that while the global economic situation is still facing critical challenges, the NDA government is committed to rebuilding investor confidence, especially for the infrastructure and manufacturing sectors.

He said the government has taken several measures to revive growth adding that with inflation under control, macroeconomic stability has improved.

Finance minister Arun Jaitley (R) with minister of state for finance Jayant Sinha, ahead of Tuesday's meeting with economists PTI

Economists who attended the meeting included Abhijit Banerjee and Esther Duflo from Massachusetts Institute of Technology, Partha Mukhopadhyay of the Centre for Policy Research, Errol D'Souza from Indian Institute of Management, Ahmedabad, Ajit Ranade of the Aditya Birla Group and Sonal Varma of Nomura.

"We stressed that focus must be given to the domestic market and consumption as the global economy is still to pick up," said one economist who was present in the meeting. Major suggestions include focus on boosting growth, containing inflation, rationalisation of subsidies, containing fiscal deficit and above all, bringing back the investors' confidence.

It was also suggested that a single window system be implemented, both at the Centre and state level, to ease doing business. "The Centre and states must be on the same page," the economist said, adding a mechanism must be put in place to ensure effective implementation of decisions upto grass root level.