

## CORE COMPULSARY SUBJECT

Subject: Industrial Economic Environment

Course Code: 402

Total Credits: 04

### Preamble –

In the present global era, growth of industries and knowledge of it is becoming imperative. This paper aims to provide basic knowledge to students about industrial growth and policies adopted by India since its independence. It also aims to make students acquainted with the changing industrial scenario of the country with focus on the main industries contributing in the industrial development of the country.

### Scope of the programme –

Basic Knowledge of Industrial economic environment

#### ➤ Objectives of the Course:

1. To provide knowledge about basic issues in Industrial Economic Environment to students.
2. To make students aware about Industrial pattern and growth in India and Industrial policies of India since independence.
3. To study the progress and current problems of major industries in India.

Unit No.	Unit Title	Content	Purpose & Skills to be Developed
1	<b>Industrial Economic Environment</b>	1.1 Industry: Meaning and Classification	1.To understand the concept of Economic Environment & its Constituents. 2. To understand the elements of Economic & Non-Economic environment.  <b>Skills:</b> Conceptual skills, writing skills
		1.2 Economic Environment : Meaning and Definitions	
		1.3 Importance of Economic Environment	
		1.4 Factors Affecting Economic Environment	
		1.5 Role of Economic Environment in Industrial Development	
2	<b>Industrial Growth and Pattern in Indian Economy</b>	2.1 Role of Industries in Economic Development of India	1.To help students to know about changes in Industrial growth and pattern after 1991 2. To know the role & problems of public sector undertakings, small scale Enterprises & Multinational Corporations in global & competitive Environment  <b>Skills:</b> Analytical skills, Critical Analysis
		2.2 Industrial Growth Pattern Since 8 <sup>th</sup> Plan	
		2.3 Public Sector industries –Role, Problems and Present Situation	
		2.4 Small Scale and Cottage Industries – Meaning, Role and Problems	
		2.5 Multinational Corporations and Indian Economy- Progress and Problems	

		2.6 Industrial Imbalance: Causes and Measures	
3	<b>Industrial Policy and Issues</b>	3.1. Meaning of Industrial Policy	1. Acquaint students with the broad features of industrial policies of Government of India since independence. 2. Recognizing progress & performance of SEZ in India. <b>Skills:</b> Writing skill, critical thinking&Improving analytical ability.
		3.2 Brief Outline of Industrial Policies : 1948, 1956, MRTP Act 1969, 1980	
		3.3 Industrial Policy of 1991 – Features and Impact	
		3.4 Special Economic Zone- Progress and Problems	
		3.5 Liberalization, Privatization and Globalization – Meaning, and Nature	
		3.6 Liberalization, Privatization and Globalization: Arguments for and Against	
		3.7 Impact of Globalization on Indian Industry	
4	<b>Major Industries in India</b>	4.1 Importance of Major Industries in India	To understand progress & problems of major industries in India. <b>Skill:</b> Communication & Analytical Skills
		4.2 Iron and Steel Industry: Progress and Problems	
		4.3 Cotton Textile Industry : Progress and Problems	
		4.4 Sugar Industry : Progress and Problems	
		4.5 Cement Industry : Progress and Problems	
		4.6 Service Industry: Information Technology Industry and Tourism Industry –Progress and Problems	

➤ **Teaching Methodology:**

Topic Number	Total Lectures	Innovative methods	Film shows and AV applications	Project	Expected Outcome
1	10	<ul style="list-style-type: none"> <li>Open book discussion</li> <li>Digital lectures</li> <li>Reading</li> <li>Projects</li> </ul>	You tube lectures	<ul style="list-style-type: none"> <li>Components of macroeconomic environment in India</li> <li>Anatomy and functioning of Industries in India</li> </ul>	Will understand the impact of economic and non – economic factors affecting industrial environment
2	14	<ul style="list-style-type: none"> <li>Group discussion</li> <li>Casestudies</li> <li>Problem solving based learning</li> </ul>	<ul style="list-style-type: none"> <li>You tube lectures,</li> <li>Lectures on SWAYAM Portal or any other online source</li> </ul>	<ul style="list-style-type: none"> <li>Analyze opportunities of growth of Small scale industries in India</li> <li>Study the growth pattern of any MNC in</li> </ul>	Will understand role of various types of industries in India like small scale industries, public sector industries, MNCs etc

				India	
3.	12	<ul style="list-style-type: none"> <li>• Pairlearning</li> <li>• Groupdiscussion</li> <li>• Open book discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher oriented PPTs.</li> <li>• You tubelectures</li> </ul>	<ul style="list-style-type: none"> <li>• Impact privatization of railways in India</li> <li>• Trend of liberalization in India since 1991</li> </ul>	<ul style="list-style-type: none"> <li>• Critically evaluate industrial polices in India</li> <li>• Analyze the impact of new industrial policy adopted by India.</li> </ul>
4	12	<ul style="list-style-type: none"> <li>• Groupdiscussion</li> <li>• Teacher driven power pointpresentation Games andsimulation</li> </ul>	<ul style="list-style-type: none"> <li>• You tubelectures</li> <li>• OnlinePPTs</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing role of service industry in India.</li> <li>• Changing composition of industries in India.</li> </ul>	Will understand role, progress and problems of manufacturing and service industries in India

### References:

1. **1 Business Environment**, Francis Cherunilam ,Himalaya Publishing House Pvt. Ltd., Mumbai
2. **Economics of Environment**, Garg M. R, RBSA Publishers, Jaipur
3. **Environmental Economics**, Singh G. N. Singh G. N. Mittal Publications,New Delhi
4. **Industrial Growth in India**, Ahluwalia J. J, Oxford University Press, New Delhi
5. **Industrial Economics in India**, Desai B., Himalaya Publishing House Pvt. Ltd., Mumbai
6. **Industrial Economics**, Birthwal R. R., Wiley Eastern Ltd., New Delhi
7. **Environmental Economics: Theory & Applications.**, Singh & Shishodia, Sage Publication, New Delhi
8. **Economics of Environment of Business (with case studies)**, Puri V. K., Mishra S. K., Himalaya Publishing House Pvt. Ltd., Mumbai
9. **Indian Economy Its Growing Dimensions.**, Dhar P. K., Kalyani Publishers, New Delhi
10. **Datt&Sundharam's Indian Economy**, GauravDatt&AshwiniMahajan, S. Chand & Company Ltd., New Delhi
11. **Industrial Economics**, Singh A & A.N. Sadhu, Himalaya Publishing House Pvt. Ltd., Bombay
12. **Indian Economy- Its Development Experience.**, Puri V. K., Mishra S. K., Himalaya Publishing House Pvt. Ltd., Mumbai
13. **Indian Economy**, Tandon B. B., Tandon K. K., McGraw Hill Publishing Company Ltd., New Delhi
14. **Indian Economy: Problems of Development & Planning.**, Agrawal A. N., New Age International, New Delhi

15. India's Economic Policies., Jalan B., Viking, New Delhi

16. Industrial Economics – Indian Perspective, Francis Cherunilam, Himalaya Publishing House.

WEB REFERENCES:

Sr. no	Lectures	Films	Animation	PPTs	Articles
1	<a href="http://www.youtube.com/user/TheMrunalPatel">www.youtube.com/user/TheMrunalPatel</a>	<a href="http://www.pbs.org/independents/blogs/earth-day-watch...">www.pbs.org/independents/blogs/earth-day-watch...</a>	<a href="http://Eprints.manipal.edu/78288/1/search_paper_final[1].pdf">Eprints.manipal.edu/78288/1/search_paper_final[1].pdf</a>	<a href="http://www.learnpick.in/.../1691/environmental-issues-india">www.learnpick.in/.../1691/environmental-issues-india</a>	<a href="http://www.preservearticles.com/economics/problems-in...">www.preservearticles.com/economics/problems-in...</a>
2	<a href="http://www.weforum.org/agenda/2017/10/eight-key-facts...">www.weforum.org/agenda/2017/10/eight-key-facts...</a>	<a href="http://www.imdb.com/search/keyword/?keywords=industrial...">www.imdb.com/search/keyword/?keywords=industrial...</a>	<a href="http://www.bbvaopenmind.com/en/technology/innovation/7">www.bbvaopenmind.com/en/technology/innovation/7</a>	<a href="http://www.slideshare.net/luxminy/industrial...">www.slideshare.net/luxminy/industrial...</a>	<a href="http://www.yourarticlelibrary.com/industries/industrialization...">www.yourarticlelibrary.com/industries/industrialization...</a>
3	<a href="http://www.toppr.com/.../indian-industrial-policies">www.toppr.com/.../indian-industrial-policies</a>	<a href="http://www.youtube.com/watch?v=jN2j6diwCFc">www.youtube.com/watch?v=jN2j6diwCFc</a>	<a href="http://www.livemint.com/Consumer/srodhe895MOz60byz2e0DL/...">www.livemint.com/Consumer/srodhe895MOz60byz2e0DL/...</a>	<a href="http://www.learnpick.in/private/documents/ppts/details/...">www.learnpick.in/private/documents/ppts/details/...</a>	<a href="http://www.researchgate.net/publication/316284188_Major...">www.researchgate.net/publication/316284188_Major...</a>
4	<a href="http://www.youtube.com/watch?v=yqzzqbkv16c">www.youtube.com/watch?v=yqzzqbkv16c</a>	<a href="http://www.youtube.com/watch?v=W7Mfznn9OkM">www.youtube.com/watch?v=W7Mfznn9OkM</a>	---	<a href="http://www.eai.in/ref/ae/wte/typ/clas/india_industrial_wastes.html">www.eai.in/ref/ae/wte/typ/clas/india_industrial_wastes.html</a>	<a href="http://www.yourarticlelibrary.com/industries/indian-industries...">www.yourarticlelibrary.com/industries/indian-industries...</a>

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## CORE COMPULSARY SUBJECT

**Subject: Operations Research**

**Course Code: 402 A**

**Total Credits: 04**

**Preamble to the syllabus:** Operations research deals with operational planning control issues and execution. It is needed in all sectors of the society. One of the objectives of the operations manager is that how to make use of the available resources in the best way to achieve certain objectives. Quantitative approaches are indeed needed in tackling many of such problems.

Operations Research (OR) deals with problem formulation and application of analytical methods to assist in decision-making of operational problems in planning and control. The techniques of OR are useful quantitative tools to assist operations managers, and has a wide applicability in engineering, manufacturing, construction, financial and various service sectors.

### Objective of the Program

1. To understand and master the concepts of Operations Research.
2. To inculcate an attitude of enquiry, logical thinking about Quantitative techniques.
3. To develop skills of facing real life problems using operational research techniques.
4. To prepare students to understand the art of applying Operational research techniques.
5. To gain knowledge of Operations research.

Unit No.	Unit Title	Contents
1	<b>Game Theory</b>	Introduction, Characteristics of game theory, Two person zero sum game, Pay off and pay off matrix, saddle point, pure strategy, mixed strategy, value of game, Dominance Principle, Algebraic system of solving 2X2 Game, Numerical problems
2	<b>Linear Programming Problem (L.P.P.)</b>	Introduction, Advantages and Applications of L.P.P., Basic Definitions and Terminology, Formulation, Canonical and Standard forms, Slack, Surplus and Artificial variables, Solution by graphical method (for problems with two variables only), Solution by simplex method (canonical form and two iterations only), degenerate, alternate, unbounded and Infeasible solutions, Big M method, Formation of dual of a L.P.P. and relation between solution of primal and dual, Numerical problems
3.	<b>Transportation Problem (T. P.) and Assignment Problem</b>	Definition, T.P. as L.P.P., balanced and unbalanced T.P., Methods of finding Initial Basic Feasible Solution (I.B.F.S.) - North – West corner method, Matrix Minima Method, Vogel's approximation method, Optimal solution by U-V method, Maximization and degeneracy in T.P. Definition, balanced and unbalanced A.P., Hungarian method, Variations of A.P (maximization and restrictions), Numerical Problems