Semester	VII
Paper Code	
Paper Title	ADVANCED MICROECONOMICS
No. of Credits	6
Theory/Composite	Theory
No. of periods assigned	4
Minimum No. of preparatory hours per week a student has to devote	6
Learning outcomes / Course description/objective	1. This course introduces students to the advanced topics of microeconomics and its applications. 2. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. 3. Introduction of the basic concepts of game theory with a comprehensive understanding of strategic interactions and decision-making. 4. Explore various types of games and their corresponding solution concepts.
Syllabus	**Module 1 (35 Marks)** 1. Theory of firms: Firms' Objectives and Alternative Hypotheses. 2. Optimization in Economic Theory: Value function, Envelop theorem and Duality approach: applications- Indirect utility function; Roy's identity; Expenditure function; Slutsky equation; Equivalent and compensating variation, Cost function; Shepherd's Lemma, Profit function, Hotelling's lemma. **Number of Classes per week: 2** **Module 2 (35 Marks)** 1. Basics of Game Theory: Strategic games; Zero-sum games, min-max theorem, value of a game; Normal form games, Extensive form games with perfect information, Repeated games. 2. Dominant and dominated strategies; Nash Equilibrium-Pure and Mixed strategy equilibria; Applications of game theory 3. Information asymmetry: Basic concepts of adverse selection, moral hazard. **Number of Classes per week: 2**
Readings	1. R. Gibbons. *Game Theory for Applied Economists*, Princeton University Press, 1992 2. A. K. Dixit.*Optimization in Economic Theory*, OUP. 3. H. R. Varian. *Microeconomic Analysis,* W. W. Norton &

<table>
<tr><td></td><td>Company, NY, London, (3rd Edition).
4. D. Fudenberg and J. Tirole, Game Theory, MIT Press (1 October 1991).
5. J. M. Henderson and R. E. Quandt, “Microeconomic Theory: A Mathematical Approach,” McGraw-Hill, Auckland, 1980.
6. C. D. Aliprantis and S. K. Chakrabarti, “Games and decision making”, Oxford University Press.
7.Mas-Colell, Whinston and Green (2012): Microeconomic Theory, Oxford University Press.</td></tr>
<tr><td>Evaluation</td><td>Continuous Internal Assessment: 30 marks
End- Semester Theory Examination: 70 marks</td></tr>
<tr><td>Paper Structure for End Sem Theory</td><td>
<table>
<tr><th>Module</th><th>No. of Questions to be Answered</th><th>No. of Alternatives</th><th>Marks</th></tr>
<tr><td rowspan="2">Module 1</td><td>3</td><td>4</td><td>5 X 3 = 15</td></tr>
<tr><td>2</td><td>3</td><td>10 X 2 = 20</td></tr>
<tr><td rowspan="2">Module 2</td><td>3</td><td>4</td><td>5 X 3 = 15</td></tr>
<tr><td>2</td><td>3</td><td>10 X 2 = 20</td></tr>
<tr><td colspan="3">Total Marks</td><td>70</td></tr>
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