## **GUIDE TO IN-CLASS MIDTERM EXAM**

The in-class midterm will be held on **Monday, March 29**. It will cover Part I of the course, minus Topics #8 and #9 which are cancelled due to lack time, and it will cover Bargaining Games and Bargaining Tactics (Topics #10 and #11) only in so far as this material has been covered in class through March 24. You should have studied Parts I and II of Dixit and Nalebuff, plus Case Studies #2, #3, #5, and #12 in Chapter 13. (Chapter #10 is recommended but no longer required.)

The in-class midterm will consist of a number of short-answer (5-10 minute) questions — not longer essay questions. Many of these questions will ask you, in a brief but precise paragraph for each item, to identify and indicate the significance of a selection of items (with some choice) drawn off the list that appears below. (Note that these items are not of equal generality or importance. The more general or important ones are more likely to appear on the test, but many items below that do not appear as *questions* may be used to good effect in *answers*.) Some questions will be in a different format. In particular, you will be presented with some simple payoff matrices and asked question about them (in the same manner as in the Problem Sets).

parlor game game of strategy Social Coordination Game tacit coordination (Schelling) Game of Fair Division Ultimatum Game Social Dilemma Game Centipede Game Dollar Auction Game game against nature (one-player game) risk vs. uncertainty payoff matrix Maximax Principle Maximin Principle Principle of Insufficient Reason (Maximize Average Payoff) ordinal vs. cardinal (or interval) payoffs Principle of Maximizing Expected Utility (or Payoffs) D-Day Game Against Nature Dominance Principle dominated strategy undominated strategy dominant strategy best reply strategy [Nash] equilibrium simultaneous choice two-player games Matching Pennies: Zero-Conflict Version

Matching Pennies: Total Conflict Version

variable-sum game

Battle of the Sexes Game

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Prisoner's Dilemma Game Chicken Game zero-sum (total conflict) game maximin (for Row) vs. minimax (for Column) payoffs strictly determined zero-sum game (e.g., Battle of Bismark Sea Game) saddlepoint non-strictly determined zero-sum game (e.g., D-Day Invasion Game) pure vs. mixed strategy Minimax (or Min-Max) Theorem of von Neumann (D&N, p. 178) practical uses of mixed strategies *sequential choice (with perfect information)* pre-play communication (unrestricted vs. restricted) strategic intelligence and deception credible commitment unconditional commitment conditional commitment threat (vs. warning) promise (vs. assurance) cooperative games binding agreements sidepayments iterated/repeated games D&N Rule 1: Look ahead and reason back first-mover vs. second mover advantage games in extensive form games in normal (or strategic) form definition of a strategy in an extensive form game information set backwards induction President vs. Congress Game Powell Amendment Game sincere vs. strategic voting Generalized Chicken Game bargaining tactics: "give in" vs. "stand firm" Hostage Holding Game "the rationality of irrationality" strategic moves (as defined by Schelling and Dixit & Nalebuff) reputation effects "last clear chance" "doomsday machine" "trip wire" decomposing a threat

threat that leaves something to chance