Practice set 4
Performance evaluation

Industrial Economics
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This problem set contains material for the relevant lab. Lab teachers are expected to provide sufficient guidance for the entire problem set. It is in the teacher's discretion to select the most representative tasks to solve instructionally in every lab. For the rest of the tasks, methodology, hints and final answers will be provided. Students are expected to work on practice problems, however, they are not required to submit written solutions. It is a non-negotiable policy in this course to not provide handouts with the solutions of practice problem sets.

1. "While profit maximization is often taken to be the goal of the firm in standard industrial economics models, this is an unrealistic and misleading view of firm behavior in the real world". Discuss this statement, pointing out reasons why profit maximization is or is not a reasonable hypothesis of firm behavior.

   UoL: 2011 za/zb

2. In the past presidential elections in the US analysts assigned to Donald Trump a 25% probability of winning if he exerted the maximum amount of effort and 10% if he exerted no effort at all.
   (a) Are these probabilities compatible with stochastic dominance? Explain.
   (b) Explain what might be the reason why an agent will not exert the maximum effort even though the reward is vastly important.

   End-module 1 test – October 2016

3. A relative contract (for instance a tournament) is known to provide the agents with insurance. (Hint: You may or may not use equations in your answers)
   (a) Explain what a relative contract is.
   (b) Explain what type of insurance is meant in the above statement.
   (c) Under what circumstances the agent will be better off if offered a relative contract (rather than a non-relative contract)?
   (d) Does the principal have any incentive to provide this insurance?

   1st Module Test – Fall 2012

4. A risk-neutral principal is looking to hire n risk-averse agents to perform a task. In order to perform the task, the agents must exert effort. Effort is continuous and it causes a quadratic reduction to agent's utility. Besides effort, the final output for every agent depends significantly on a random factor, which is partly common and partly idiosyncratic.
   (a) If the principal can observe the effort exerted by each agent, how should he compensate them? Explain.
   (b) If the principal can observe only the final output of the agent's work, what would be the best method to compensate them? Explain why.

   End-module 1 test – October 2015

5. A large firm wants to outsource the production of some intermediate good to multiple smaller firms (agents). These agents are known to be quite similar to each other and risk averse. All agents are located very close to each other and they face several risks in the production of the intermediate good, the most important of which is bad weather. Propose an efficient compensation method to these agents for the production of the intermediate good. Explain what makes your method efficient.

   End of 2nd Module Examination – 2013