



Collective Decision Making in Organizations (2687)

Summer Term 2007 – Final Exam

Solve two out of the three questions below. If you answer more than two questions, the first two answers that appear on your reply sheets will be graded.

Each question yields a maximum of 30 points. The number of points assigned to each part reflects the estimated time (in minutes) you should spend on this part. The total is 60 points.

Permitted aid: dictionary.

Before you start answering, please make sure that all your reply sheets provide a margin of at least 2 cm. Limit your replies to one single side of the sheets, but extend them to all aspects of the topic under scrutiny.

Good luck!

1. Explain the “discursive dilemma” that may occur in a committee of three members (with two options and two criteria). 30 points

2.
 - a) Define formally and explain verbally the term “social decision rule”. 5 points
 - b) Name and explain the five axioms that, according to Arrow, a social decision rule should comply with. 15 points
 - c) Explain verbally the “Arrow paradox” and discuss its consequences for an economic and legal order. 10 points

3.
 - a) Consider three firms (1, 2, 3) who send a delegate to the supervisory board of their joint venture. Their voting weights are proportional to their equity shares: $w_1=48$, $w_2=9$, $w_3=43$. Derive the relative power indices (according to Penrose) 10 points
 - b) Now introduce a second criterion, e.g., annual returns (market shares). Assume that $r_1=60$, $r_2=5$, $r_3=20$ (in Mio. \$). A proposal has to be backed by more than 50% of votes AND at least 70 Mio. \$ in returns to become the social decision. Derive the relative power indices. 10 points
 - c) Discard the returns criterion and assume for now that players 1 and 3 always disagree with each other. Derive the relative power indices of the three firms. 10 points