Operating Systems, miniexam 5, 27.3.2017 (6p)

Write your answer on this exam paper in the space given. Please notice, that the exam paper is 2-sided.

a) [2 p] How does the Highest Response Ratio Next (HRRN) scheduling work?

What data does it use in decision making and how is that data obtained?

What types of jobs does it prefer and why?

b) [1 p] Fair Share scheduling policy tries to give different users about equal execution time, independently on how many processes they have for execution.

How does Fair Share scheduling work in main principles?
c) [2 p] In a real time system task A runs every 50 ms, task B every 20 ms, and task C every 100 ms. Under what circumstances could one use just priorities for scheduling?

How would the priorities be determined in this example? Who has the highest priority and why?

d) [1 p] Mention one scheduling algorithm for multiprocessor systems, such that it is not suitable for uniprocessor or real time systems. Explain, why not. Explain also how it works in main principles.