Probabilities & Expected Value of Information: Consulting Interviews & Candidate Quality

Suppose PowerPointers Anonymous Consulting Group LLC is interviewing five candidates for an open management consulting associate role. This company knows that three of the five candidates are equally skilled at making pretty slides but two of the five candidates have no idea how to make slides or use big words for clients. The posted starting salary is \$100,000 for this role. Due to government labor regulations, after hiring someone the company cannot legally reduce this salary or terminate the employee for one year. The value of a skilled employee for the company is \$200,000 in annual revenue and the value of a clueless employee is \$40,000 in annual revenue. The company tries to evaluate candidates in the interview process, but remote interviews do not provide any useful information about candidate quality. On-site interviews conducted in the company office always have an accuracy rate of 80% for correctly identifying a candidate's type, regardless of whether the interviewed candidate is skilled or clueless. All candidates have income/leisure preferences skewed towards work so all of them would be happy to accept the \$100,000 job offer, and the company is aware of this.

- a) How much should a risk-neutral company be willing to pay for one randomly chosen candidate to come into the office for an on-site interview instead of conducting that interview remotely?
- b) After conducting one on-site interview in the office, but before making an offer decision, how much should a risk-neutral company be willing to pay to bring a second candidate (randomly chosen from the remaining four) into the office for an on-site interview instead of conducting this second interview remotely?
- If the company must commit to a decision in advance, before conducting any interviews, about paying some additional amount to bring a second candidate into the office for an on-site interview, how much more should it be willing to pay for a second candidate to interview on-site?
- d) Suppose the company incurs a non-recoverable cost of \$50,000 conducting interviews and background checks but hires one of the clueless candidates. They cannot reverse this decision or terminate the employment for one year. Should a risk-neutral company hire a second randomly chosen candidate from the four remaining if it cannot interview any of them?