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Each person should submit this document with the answers for INDIVIDUALWORK and your GROUPWORK should be committed to GitHub.

INDIVIDUALWORK

(30 pts)

This is just to ensure you're keeping up with the material.

1) What is a key difference between the burn-down and burn-up charts for Agile?

A burn-down chart tracks the amount of remaining tasks in a project with date/time on the x-axis and story points/ tasks remaining on the y-axis. The general trend of a line on a burndown chart is decreasing over time as less tasks remain until completion. A burn-up chart has the same x and y-axis except it tracks completed tasks, so its general trend would increase over time as more tasks get done. On top of this a burn-up chart also tracks the workload or scope for a project as a second line on a graph. This means that a burn-up chart can give a more complete picture on what is going on in a project given we can see changes in the scope and amount of tasks done, while burn-down only shows tasks remaining.

2) At which point in the software engineering process would you perform a COCOMO I estimate for basic, intermediate, and advanced?

First of all COCOMO I was created in 1981 for waterfall method projects, so I would use each of these types with a waterfall project. I would use the basic style calculation for a small team of developers of similar skill for a safer project. This is because basic COCOMO I does not account for developer skills/seniority or reliability. Next I would use an intermediate COCOMO model for a more complex project that has software and hardware and has a team of varying skill. This is because intermediate COCOMO looks at 15 different attributes tied to the capabilities of the software, hardware, team, and project deadline to create an effort estimate. Lastly, for an advanced COCOMO I estimate with; a team of varying skill, a project that is

expected to last a long time with many iterations, or a high risk project. This is because the advanced technique weighs the different attributes of a project based on its lifecycle and is more accurate.

3) Assume you need to perform an effort estimation early in a project lifecycle (think initial scoping, pre-requirements). What sort of estimation technique would you use and why?

I would use an estimate by analogy if there is a similar completed project to mine. So I can judge based on that project's efforts, costs and closeness to my own project how much my project would cost. If I did not have a similar completed project then I would refer to an expert opinion. I'd use the expert opinion not only to estimate the cost of the project at hand, but also consider costs of the project potentially down the line and leave room for changes.