Practice Exam

All material covered during class is included in your midterm exam; the following is a list of question that you could use to practice and prepare for the exam.

1. What is the importance of tracking the budgeted work performed versus budgeted work scheduled?
2. Explain how project monitoring is handled by the project manager.
3. What is the difference between the V-model and waterfall model in software development
4. What is the intent of the CMM framework?
5. Explain the difference between Scrum and traditional/plan-based/waterfall project management methods.
6. Quantitative process management is one of the KPA in level 4, explain.
7. How do we measure the quality of the project?
8. What are the characteristics of a successful project manager?
9. Explain how automation may help reduce the cost of the software project?
10. Explain the difference between Scrum and Xp.
11. Explain the relationship between the BCWS and BCWP.
12. Explain the difference between the Iteration in the Unified process and Sprint in Scrum
13. Explain the difference between disciplines in the Unified process and phases in the waterfall process.
14. Who executes the unit testing task?
15. We can compress the software development project up to 25% of the dominant but no more, explain.
16. Do we test for the presence or the absence of the bugs in the software system? Explain.
17. Compare and contrast the software build and the software release within the context of software configuration management.
18. Quality is a constraint that operates on every project, explain.
19. What are the five phases of the traditional/plan-based software project management?
20. Explain how the requirements may become a risk factor for the project?
21. What is the software process?
22. Why realtime applications like Air Traffic control system, and Telecom Switch are expensive?
23. What is the formal testing process?

24. What is the crashpoint?
25. Explain the difference between the software artifact review preparation and software artifact review meeting
26. How misunderstanding in the SW development project may impact the activity duration?
27. Explain why code-rework is more expensive than the original coding work.
28. What are the general constraints that may exist between the activities?
29. What is the critical path?
30. Based on the following table create the network diagram and calculate the critical path.

Activity Number	Activity Description	Dependency	Duration	Early Start	Early Finish	Late start	Late Finish
1	Planning		12	8/1	8/12	8/1	8/12
2	Install Hardware	1	2	8/13	8/14	10/19	10/20
3	Test Hardware	2	8	8/15	8/22	10/21	10/28
4	Install Software tools	1	10	8/13	8/22	8/13	8/22
5	Implementation	4	45	8/23	10/6	8/23	10/6
6	Test Software	5	22	10/7	10/28	10/7	10/28
7	Install Software	3,6	8	10/29	11/6	10/29	11/6
8	Interoperability Test	7	3	11/7	11/9	11/7	11/9
9	Train	8	3	11/10	11/12	11/10	11/12
10	Acceptance	9	1	11/13	11/13	11/13	11/13

31. Explain how slack can be used to level resources.
32. What is the purpose of the work package?

33. Is the appraisal of a developer on the project will be carried out by the project manager or functional manager? Explain.
34. What is the difference between request for information and request for proposal?
35. What are the constraints that may influence whether we can partition an activity or not?
36. What is the main rational behind the V-Model?
37. What is the difference between the project manager and team leader?
38. In a company where the software life span is 10 plus years, what is/are methods to estimate activity duration?

39. Use the following data and calculate the effort and duration required for every task, considering the following constraints:

    1. Every review "meeting" task shall be carried by 5 engineers including ONE of the author(s)
    2. Every review "preparation" task shall be carried by 4 engineers excluding the author(s)
    3. Any "Rework" task can be executed by one or all authors of the original task
    4. Clearly state how many headcounts will work on authoring/writing the artifact

Task	Effort	Duration	Amount of Work	Productivity Rate
Design				
Write High Level DD			320 pages	5 pages/Hour
Review High Level DD				
Preparation for High Level DD				5 pages/Hour
Review Meeting				5 pages/Hour
Rework			190 defects	5 defects/Hour
Write Low Level DD			225 pages	1 page/Hour
Review Low Level DD				
Preparation for Low Level DD				5 pages/Hour
Review Meeting				5 pages/Hour
Rework			143 defects	5 defects/Hour