

## 15 Practice makes perfect

# Practice PMP exam

I know we're supposed to be studying, but I can't stop thinking about fudge.



**Bet you never thought you'd make it this far!** It's been a long journey, but here you are, ready to review your knowledge and get ready for exam day. You've put a lot of new information about project management into your brain, and now it's time to see just how much of it stuck. That's why we put together this 200-question PMP practice exam for you. It looks just like the one you're going to see when you take the real PMP exam. Now's your time to flex your mental muscle. So take a deep breath, get ready, and let's get started.

## What you'll see on the PMP Exam

Take a minute to think about everything you've learned. There's a lot of information, and it covers all the stuff you do over the course of your entire project and your professional life. So what's the best way to focus all that information? By taking a minute to think about the **exam objectives**. If you know what the test is driving at, it will help you answer questions correctly. And knowing how the exam is broken down will help make sure that there won't be any surprises on exam day.

There are six performance domains, and each of them is divided into tasks. Each of the tasks can span several processes.



11%



Initiating  
process group

- ✓ Conduct Project Selection Methods
- ✓ Define Scope
- ✓ Document Project Risks, Assumptions, and Constraints
- ✓ Identify and Perform Stakeholder Analysis
- ✓ Develop Project Charter
- ✓ Obtain Project Charter Approval

This is where you're tested on everything that has to do with getting a project up and running: what's in the charter, identifying your stakeholders, and understanding how your organization handles projects.

23%



Planning  
process group

- ✓ Define and Record Requirements, Constraints, and Assumptions
- ✓ Identify Project Team and Define Roles and Responsibilities
- ✓ Create the WBS
- ✓ Develop Change Management Plan
- ✓ Identify Risks and Define Risk Strategies
- ✓ Obtain Plan Approval
- ✓ Conduct Kick-off Meeting

Every knowledge area involves a lot of planning. This domain tests you on how you create all of those plans, and what should be in them.

27%



Executing  
process group

- ✓ Execute Tasks Defined in Project Plan
- ✓ Ensure Common Understanding and Set Expectations
- ✓ Implement the Procurement of Project Resources
- ✓ Manage Resource Allocation
- ✓ Implement Quality Management Plan
- ✓ Implement Approved Changes
- ✓ Implement Approved Actions and Workarounds
- ✓ Improve Team Performance

This is where the work happens, but it also includes a lot of information about contracts. That's why it's the performance domain with the most questions.

**Would you rather take this practice exam online?**  
**Try the free Head First PMP online exam simulator!**

[http://www.headfirstlabs.com/PMP/free\\_exam/](http://www.headfirstlabs.com/PMP/free_exam/)



Watch it!

**Uh-oh – the PMP® exam spec isn't out yet!**

This edition of Head First PMP went to press in June 2009 in order to coincide with the new version of the PMP® Exam released in July 2009. As of this time, the most recent version of the PMP® Examination Specification was published in 2005, and this exam conforms to that specification. That's why so many people who have passed the PMP exam using Head First PMP have told us that the real exam is very similar to this one. As soon an updated spec is published, we will release an updated version of this exam. You'll always be able to get the most up-to-date version of this exam as a free PDF download from the Head First Labs website. <http://www.headfirstlabs.com/hfmpm>

21%



Monitoring & Controlling process group

- ✓ Measure Project Performance
- ✓ Verify and Manage Changes to the Project
- ✓ Ensure Project Deliverables Conform to Quality Standards
- ✓ Monitor all Risks

*This is where you see all those earned value calculation questions.*

9%



Closing process group

- ✓ Obtain Final Acceptance for the Project
- ✓ Obtain Financial, Legal, and Administrative Closure
- ✓ Release Project Resources
- ✓ Identify, Document, and Communicate Lessons Learned
- ✓ Create and Distribute Final Project Report
- ✓ Archive and Retain Project Records
- ✓ Measure Customer Satisfaction

*You'll need to know all about how the stakeholders accept your product, and what you need to do before you close out the project.*

9%



Professional & Social Responsibility

- ✓ Ensure Individual Integrity
- ✓ Contribute to the Project Management Knowledge Base
- ✓ Enhance Personal Professional Competence
- ✓ Promote Interaction Among Stakeholders

*PMI places a lot of value on personal integrity. Before you can become a PMP-certified project manager, you need to demonstrate that you know the right thing to do in a lot of tricky situations.*

Wait a second. How do you guys know all this stuff?



**PMI doesn't keep it a secret!**

They publish a specification for the exam. It's called the **Project Management Professional (PMP®) Examination Specification**, and you can buy it from the "Bookstore" section of the PMI website. It's got a lot more details than what we put on this page—this is just the broad strokes. But we were careful to stick closely to the spec when we created this final exam.

The exam lasts 4 hours, and it has 200 questions. Only 175 of those questions count towards your grade—the other 25 are used by PMI for research. The categories on these pages show how those 175 questions break down.

**Okay, enough talk. Let's get to the questions!**

## Exam Questions

**1. A team member approaches you with a change that could cut your schedule down by a month. What is the first thing you should do?**

- A. Write up a change request and see if you can get it approved
- B. Make the change; it's going to save time and nobody will want the project to take longer than it should
- C. Figure out the impact on the scope of the work and the cost before you write up the change request
- D. Tell the team member that you've already communicated the deadline for the project, so you can't make any changes now

**2. You have been hired by a contractor, who wants you to manage a construction project for one of their clients. The project team has been working for six weeks. You need to determine whether the team is ahead of or behind schedule. Which of the following tools and techniques is the BEST one for you to consult?**

- A. Performance Measurement
- B. Project Management Software
- C. Schedule Change Control System
- D. Bottom-Up Estimating

**3. Which of the following is not a tool or technique of the Perform Quality Control process?**

- A. Inspection
- B. Quality audits
- C. Pareto charts
- D. Statistical sampling

**4. Brandi is a project manager on a software project. About halfway through development, her team found that they had not estimated enough time for some of the technical work they needed to do. She requested that the new work be added to the scope statement and that the time to do the work be added to the schedule. The change control board approved her change. What's her next step?**

- A. Update the scope and schedule baselines to reflect the approved change
- B. Start doing the work
- C. Gather performance metrics on the team's work so far
- D. Perform Quality Assurance

**5. You are initiating project that has a virtual team. Half of your team members will be located in another country, where they are working for a subcontractor. The subcontractor's team members speak a different dialect of English than your team does. After a conference call to review the project charter, two of your team members make jokes about the way your subcontractor's team members speak. What is the BEST way to handle this situation?**

## Exam Questions

- A. Inform the subcontractor that they must adopt a non-discriminatory policy or you will be forced to terminate the contract and find a subcontractor that does not discriminate against women
- B. Do nothing, because discrimination against women is a cultural norm in the subcontractor's country
- C. Update the project charter to add a requirement that teams expect cultural differences
- D. Promote another team member, but find a different way to reward the woman for her work

**6. Which of the following is NOT a source of information about specific project constraints and assumptions?**

- A. The project scope management plan
- B. Requirements documentation
- C. The project scope statement
- D. The scope baseline

**7. When do you perform stakeholder analysis?**

- A. When managing communications on your project
- B. When developing the project charter
- C. When creating the project management plan
- D. When putting changes through change control

**8. Which of the following is NOT true of obtaining project plan approval?**

- A. Until you obtain plan approval, you don't need to put changes to it through change control
- B. Change control makes sure that only approved changes can make it into the approved plan
- C. Only one person needs to approve the Project Management Plan and that's the Project Manager
- D. It's important for the entire team to buy into the Project Management Plan for it to be successful

**9. When are the most expensive defects most likely to be introduced into a product?**

- A. When the product is being assembled
- B. When the product is being designed
- C. When the quality management plan is being written
- D. When the product is being reviewed by the customers

## Exam Questions

10. You are the project manager for a railroad construction project. Your sponsor has asked you for a forecast for the cost of project completion. The project has a total budget of \$80,000 and CPI of .95. The project has spent \$25,000 of its budget so far. How much more money do you plan to spend on the project?

- A. \$59,210
- B. \$80,000
- C. \$84,210
- D. \$109,210

11. Which of the following best describes decomposition?

- A. Waiting for a task to expire so that it can break down into smaller tasks
- B. Taking a deliverable and breaking it down into the smaller work packages so that it can be organized and planned
- C. Categorizing work packages
- D. Dividing work packages into deliverables that can be planned for

12. Which is the BEST definition of quality?

- A. A product made of very expensive materials
- B. A product made with a lot of care by the team who built it
- C. A product that satisfies the requirements of the people who pay for it
- D. A product that passes all of its tests

13. In which plan do you define the processes that will be used to keep people informed throughout the project?

- A. Staffing Management Plan
- B. Project Management Plan
- C. Schedule Management Plan
- D. Communications Management Plan

14. Which enterprise environmental factor defines how work is assigned to people?

- A. RACI matrix
- B. Project Management Information System (PMIS)
- C. Resource histogram
- D. Work authorization system

15. You are currently performing the Conduct Procurements process. You are considering two bids from companies on your qualified sellers list. Your project is on a tight budget, and you have been instructed by senior management to consider the cost over any other criteria. You used the company that submitted the lower bid on

## Exam Questions

a previous project, and you were not happy with their work. The company that submitted the higher bid has a reputation for treating their clients well, flying project managers first class, and giving them accommodations in five-star hotels. What is the BEST way to handle this situation?

- A. Select the company with the lowest bid
- B. Give the manager at the company with the higher bid information that will allow him to tailor his bid so that it better meets your needs
- C. Rewrite the RFP so that the company with the lowest bid is excluded
- D. Select the company with the higher bid

16. Which of the following shows roles and responsibilities on your project?

- A. Bar chart
- B. Resource histogram
- C. RACI matrix
- D. Human Resource Management Plan

17. A project manager is working in a country where it is customary to pay the police for private protection services, and those costs have increased the AC. This has affected his earned value calculations. When he reviews the budget with his company's management, his supervisor tells him that in another country, those costs would be considered a bribe, and questions whether they should be added to the budget. What is the BEST way for the project manager to proceed?

- A. Do not pay the police for private protection services, because that would be a bribe
- B. Pay the police for private protection services, because it is customary in the country they are operating in
- C. Consult the Cost Management Plan about payment
- D. Initiate cost control to update the cost baseline.

18. Which conflict resolution technique is most effective?

- A. Withdrawal
- B. Compromise
- C. Smoothing
- D. Confronting

19. Which of the following is NOT an input to Perform Quality Control?

- A. Deliverables
- B. Work Performance Measurements
- C. Quality Checklists
- D. Validated Changes

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**20. You have just delivered a product to your client for acceptance, when you get a call that some features they were expecting are missing. What's the first thing you should do?**

- A. Get your team together and reprimand them for building a product that doesn't meet user expectations
- B. Tell the client that the product passed all of your internal quality inspections and scope verification processes, so it must be fine
- C. Tell the team to start building the missing features into the product right away
- D. Call a meeting with the client to understand exactly what is unacceptable in the product and try to figure out what went wrong along the way

**21. You are managing a software project. You are partway through the project, and your team has just delivered a preliminary version of part of the software. You are holding a weekly status meeting, when one of the team members points out that an important stakeholder is running into a problem with one of the features of the current software. The team member feels that there is a risk that the stakeholder will ask for a change in that feature, even though that change would be out of scope of the current release—and if the stakeholder requests that change, there is a high probability that the change control board would approve the change. What is the BEST action to take next?**

- A. Mitigate the risk by asking a team member to get familiar with the feature of the software that might be changed
- B. Schedule a meeting with the stakeholder to discuss the risk
- C. Add the risk to the risk register and gather information about its probability and impact
- D. Add the risk to the issue log and revisit it when there is more information

**22. Tom is the project manager of an accounting project. He has just finished defining the scope for the project and is creating the WBS. He goes to his organizational process asset library and finds a WBS from a past project to use as a jumping off point. Which of the following describes the asset that Tom is using?**

- A. Decomposition
- B. Delphi Technique
- C. Brainstorming
- D. Templates

**23. Which of the following BEST describes the main purpose of the project charter?**

- A. It authorizes the project manager to work on the project
- B. It identifies the sponsor and describes his or her role on the project
- C. It contains a list of all activities to be performed
- D. It describes the initial scope of the work

**24. You are the project manager for a software development project. When you need to get staff from the manager of the QA department, he suggests a few test engineers with performance problems for your team. Which is the BEST response to this situation?**



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- A. Stop talking to the QA manager
- B. Call a meeting with the QA manager to try to figure out why he suggested those candidates and how the two of you can work together to find team members with suitable skills and interests for your team
- C. Tell the QA manager that the staffing problems are really no big deal, and you're sure that the two of you can eventually figure out the right answer together
- D. Tell the manager that you know which team members you want for your team and he needs to give them to you

**25. You are managing a construction project using a firm fixed price (FFP) contract. The contract is structured so that your company will be paid a fee of \$85,000 to complete the work. There was a \$15,000 overhead cost that your company had to cover. It's now three months into the project, and your costs have just exceeded \$70,000. The project has now consumed the entire fee, and your company will now be forced to pay for all costs on the project from this point forward. What's the BEST way to describe this situation?**

- A. The project manager has overspent the budget
- B. The project is overdrawn
- C. The project has reached the point of total assumption
- D. The project has ceased to be a profit center for the company

**26. A project manager is reporting the final status of the closed contract to the stakeholders. Which form of communication is appropriate?**

- A. Informal written
- B. Informal verbal
- C. Formal written
- D. Formal verbal

**27. You are managing a software engineering project. While investigating the cause of a low SPI, you discover that your team is having trouble completing their object design tasks, which are on the critical path. One of your team members tells you that her friend at another company sent her a copy of a software package they own that will help your team meet its deadline. Without that software package, your project will probably be late. But you don't have enough money in the budget to purchase it. What's the BEST way to handle this situation?**

- A. Tell the team member not to use the software, and accept that the project will be late
- B. Use the software so that your project comes in on time
- C. Purchase the software so that you have a licensed copy
- D. Find a way to add resources to the object design activity or move it off of the critical path.

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**28. You are managing a project with a total budget of \$450,000. According to the schedule, your team should have completed 45% of the work by now. But at the latest status meeting, the team only reported that 40% of the work has actually been completed. The team has spent \$165,000 so far on the project. How would you BEST describe this project?**

- A. The project is ahead of schedule and within its budget
- B. The project is behind schedule and within its budget
- C. The project is ahead of schedule and over its budget
- D. The project is behind schedule and over its budget

**29. Which of the following is the correct order of the Monitoring & Controlling processes for Scope Management?**

- A. First Verify Scope, then Control Scope
- B. First Control Scope, then Verify Scope
- C. Both happen simultaneously
- D. There is not enough information to decide

**30. You are working on a construction project. You, your team, and your senior manager all feel that the work is complete. However, one of your important clients disagrees, and feels that one deliverable is not acceptable. What is the BEST way to handle this conflict?**

- A. Consult the contract and follow its claims administration procedure
- B. Renegotiate the contract
- C. File a lawsuit to force the stakeholder to accept the deliverable
- D. Terminate the contract and follow any termination procedure in the contract

**31. One way the Close Project or Phase process differs from Close Procurement is:**

- A. Procurement closure involves verification that all work and deliverables are acceptable, where Close Project or Phase does not
- B. Close Project or Phase is only a subset of Close Procurement
- C. Procurement closure means verifying that the project is complete or terminated; Close Project or Phase is the process of tying up all of the activities for every management process group
- D. Procurement closure is performed by the seller; Close Project or Phase is performed by the buyer

**32. Which of the following contracts has the MOST risk for the buyer?**

- A. Cost plus fixed fee (CPFF)
- B. Time and Materials (T&M)
- C. Cost plus award fee (CPAF)
- D. Fixed price (FP)

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33. You are managing a software project. During a walkthrough of newly implemented functionality, your team shows you a new feature that they have added to help make the workflow in the product easier for your client. The client didn't ask for the feature, but it does look like it will make the product easier to use. The team developed it on their own time because they wanted to make the client happy. You know this change would never have made it through change control. What is this an example of?

- A. Gold plating
- B. Scope creep
- C. Alternatives Analysis
- D. Schedule Variance

34. While identifying risks for a new construction project, you discover that a chemical you are using on your building cannot be applied in rainy conditions. You also learn that your project will be ready for the chemical application around the time when most of the rainfall happens in this part of the country. Since the project can't be delayed until after the rainy season and you need to make sure the building gets the chemical coating, you decide that your team will just have to allow enough time in the schedule for nonworked rain days.

This is an example of which strategy?

- A. Mitigate
- B. Exploit
- C. Accept
- D. Transfer

35. You are managing a construction project. During your risk identification interviews you learn that there has been a string of construction site thefts over the past few months in the area where you will be building your project. The team agrees that it's unlikely that people will be able to steal from your site. Even if thieves could get around your security, it's even more unlikely that your project will lose a significant amount of material if a theft does occur. You decide to monitor the risk from time to time to be sure that it continues to have a low probability and impact. Where do you record the risk so that you don't lose track of it?

- A. In a trigger
- B. On a watchlist
- C. In the Probability and Impact Matrix
- D. In the Monte Carlo analysis report

## Exam Questions

**36. Which of the following is NOT a characteristic of the Project Management Plan?**

- A. Collection of subsidiary plans
- B. Formal, written communication
- C. A bar chart that shows the order of tasks and their resource assignments
- D. Must be approved by project sponsor

**37. You are developing the project scope statement for a new project. Which of the following is NOT part of creating a project scope statement?**

- A. Verify Scope
- B. Using the Project Charter
- C. Alternatives Identification
- D. Obtaining Plan Approval

**38. Which of the following is NOT a tool or technique of Estimate Costs?**

- A. Bottom-up
- B. Parametric
- C. Cost aggregation
- D. Analogous

**39. You're managing a construction project to install several hundred air conditioner panels in a new office building. Every floor has identical panels. The customer, a construction contracting company, has provided specifications for the installations. The team is using a process to install and verify each panel. As the team completes each panel, your team's quality control inspector measures it and adds the data point to a control chart. You examine the control chart, and discover that the process is out of control and you need to take close look at it immediately. Which of the following BEST describes what you found on the control chart?**

- A. At least seven consecutive measurements are either above or below the mean but within the control limits
- B. At least one point is inside of the control limits
- C. At least seven consecutive measurements are inside of the control limits
- D. At least one point is above or below the mean

**40. A senior manager is presenting to your client's board of directors about your project. As part of distributing information, you must deliver status updates and other project materials to him via overnight mail. If the materials do not arrive tomorrow, your company will miss a major contract deadline and you will lose future business from this important client. The deadline cannot be negotiated. The team worked right up to the last minute in order to give you the files. Due to a traffic jam, you are running late and the overnight delivery company will close in five minutes. You can only make it if you drive over the speed limit. Which of the following is correct?**

- A. You must drive over the speed limit so that you can save the client relationship
- B. You must stay within the speed limit, even if you lose the client

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- C. Update the organizational process assets to reflect the change
- D. You can use the earned value metrics to show that the SPI is over 1, meaning the project is not late

**41. You are planning a project that uses the same team as a project that is currently being performed by your company. What should you consult to find information about when those people will be available for your project?**

- A. The project schedule for your project
- B. The project manager for the project that the team is working on
- C. The staffing management plan for the project that the team is working on
- D. The communications management plan for your project

**42. When is the BEST time to have project kickoff meetings?**

- A. At the beginning of the project
- B. When each deliverable is created
- C. At the start of each phase
- D. When the Communications Management plan is approved

**43. Joe is a project manager on an industrial design project. He has found a pattern of defects occurring in all of his projects over the past few years and he thinks there might be a problem in the process his company is using that is causing it. He uses Ishikawa diagrams to come up with the root cause for this trend over projects so that he can make recommendations for process changes to avoid this problem in the future. What process is he doing?**

- A. Plan Quality
- B. Perform Quality Assurance
- C. Perform Quality Control
- D. Qualitative Risk Analysis

**44. You are a project manager for a software project. Your team buys a component for a web page but they run into defects when they use it. Those defects slow your progress down considerably. Fixing the bugs in the component will double your development schedule and building your own component will take even longer. You work with your team to evaluate the cost and impact of all of your options and recommend hiring developers at the company that built the component to help you address problems in it. That will cost more but it will reduce your delay by a month. What is your next step?**

- A. Fix the component
- B. Write up the change request and take it to the change control board
- C. Start Plan Procurements so you can get the contract ready for the vendor
- D. Change the Scope Baseline to include your recommendation

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45. The terms of union contracts are considered \_\_\_\_\_ in your project plan.

- A. Assumptions
- B. Constraints
- C. Requirements
- D. Collective bargaining agreements

46. A change has occurred on your project. You've documented the change, filled out a change request, and submitted that request to the change control board (CCB). What's the NEXT thing that must happen on the project?

- A. A senior manager decides whether or not to make the change and informs the project management team of the decision
- B. The project manager informs the CCB whether or not to approve the change
- C. Stakeholders on the CCB use expert judgment to evaluate the requested change for approval
- D. The project manager meets with the team to analyze the impact of the change on the project's time, scope, and cost

47. You are managing a design project. You find that bringing all of your team members into a single room to work increases their communication, and helps build a sense of community. This is referred to as a:

- A. War room
- B. Virtual team
- C. Socially active team
- D. Common area

48. You are a project manager on a construction project. You have just prepared an RFP to send around to electrical contractors. You get a call from your uncle who owns an electrical contracting company. He wants to bid on your project. You know he's done good work before, and it may be a good fit for your company. How do you proceed?

- A. You disclose the conflict of interest to your company, and disqualify your uncle's company
- B. You disclose the conflict of interest to your company, and make the selection based on objective criteria
- C. You disclose the conflict of interest to your company, and provide your uncle with information that the other bidders don't have so that he has a better chance of winning the contract
- D. You do not disclose the conflict of interest, and give your uncle the bid

49. You are managing a software project. You are partway through the project, and your team has just delivered a preliminary version of part of the software. Your team gives a demonstration to the project sponsor and key stakeholders. Later, the sponsor informs you that there is an important client who will be using the software your team is building, and whose needs are not being met. As a result, you must now make a large and expensive change to accommodate that client. What is the BEST explanation for this?

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- A. The sponsor is being unreasonable
- B. Stakeholder analysis was not performed adequately
- C. The team made a serious mistake and you need to use punishment power to correct it
- D. You do not have enough budget to perform the project

**50. Which of the following is NOT an input of the Close Project or Phase process?**

- A. Project Management Plan
- B. Project Management Methodology
- C. Accepted Deliverables
- D. Organizational Process Assets

**51. The scope baseline consists of:**

- A. The Scope Management Plan, the Project Scope Statement, and the WBS
- B. The Scope Management Plan, Requirements Documents, and the WBS
- C. The Scope Management Plan, the WBS, and the WBS Dictionary
- D. The Project Scope Statement, the WBS, and the WBS Dictionary

**52. You are managing a construction project that is currently being initiated. You met with the sponsors, and have started to work on identifying stakeholders. You've documented several key stakeholders and identified their needs. Before you can finish initiating the project, your company guidelines require that you make a rough order of magnitude estimate of both time and cost, so that the sponsor can allocate the final budget.**

**What's the range of a rough order of magnitude (ROM) estimate?**

- A. -10% to +10%
- B. -50% to +50%
- C. -50% to +100%
- D. -100% to +200%

**53. Which of the following processes is in the Initiating process group?**

- A. Develop Project Charter
- B. Develop Project Management Plan
- C. Define Scope
- D. Define Activities

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**54. Mary is a project manager at a consulting company. The company regularly builds teams to create products for clients. When the product is delivered, the team is dissolved and assigned to other projects. What kind of organization is she working for?**

- A. Weak matrix
- B. Projectized
- C. Functional
- D. Strong matrix

**55. An important part of performing stakeholder analysis is documenting quantifiable expectations. Which of the following expectations is quantifiable?**

- A. The project must improve customer satisfaction
- B. The project should be higher quality
- C. The project must yield a 15% reduction in part cost
- D. All stakeholders' needs must be satisfied

**56. At the close of your project, you measure the customer satisfaction and find that some customer needs were not fully met. Your supervisor asks you what steps you took on your project to improve customer satisfaction. Which subsidiary plan would you consult to determine this information?**

- A. Quality management plan
- B. Communications management plan
- C. Staffing management plan
- D. Risk management plan

**57. Customer satisfaction should be measured at the end of the project to maintain long-term relationships. Which of the following is NOT always an aspect of customer satisfaction?**

- A. The product meets its stated and unstated requirements
- B. The project is profitable
- C. The product is high quality
- D. The customer's needs are met

**58. Dave is the project manager for a construction project that is building a gazebo. When the project first started, he met with the stakeholders to define the scope. The sponsors mentioned that the gazebo is a really important part of their daughter's wedding ceremony that was planned for seven months from then. In fact, they said that if the gazebo couldn't be completed in seven months, it wouldn't be worth it for them to even start the project. Dave wrote down the seven-month deadline to put in his Project Scope Statement. In which section of the document did the deadline appear?**

- A. Project Deliverables
- B. Project Objectives



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- C. Project Constraints
- D. Project Assumptions

**59. Which of the following is a “hygiene factor” under Herzberg’s Motivation-Hygiene Theory?**

- A. Recognition for excellent work
- B. Self-actualization
- C. Good relations with coworkers and managers
- D. Clean clothing

**60. A bar chart shows the number and type of resources you need throughout your project is called a \_\_\_\_\_.**

- A. Organizational Chart
- B. Resource Schedule
- C. Resource Histogram
- D. Staffing Timetable

**61. You have identified an opportunity to potentially increase the project’s value. Which of the following is an example of enhancing that opportunity?**

- A. By forming a partnership with another company, the project’s value will increase for both companies
- B. By taking additional actions, you increase the potential reward without reducing its probability
- C. By taking out insurance, you can reduce potential costs to the project
- D. By documenting the opportunity in the register, you can keep track of it and ensure it gets exploited

**62. Which of the following best describes the Plan-Do-Check-Act cycle?**

- A. Invented by Joseph Juran, it’s a way of tracking how soon defects are found in your process.
- B. Invented by Walter Shewhart and popularized by W. E. Deming, it’s a method of making small changes and measuring the impact before you make wholesale changes to a process.
- C. Made popular by Phillip Crosby in the 1980s, it’s a way of measuring your product versus its requirements
- D. It means that you plan your project, then do it, then test it, and then release it

## Exam Questions

**63. You are developing the project charter for a new project. Which of the following is NOT part of the enterprise environmental factors?**

- A. Lessons learned from previous projects
- B. Knowledge of which departments in your company typically work on projects
- C. The work authorization system
- D. Government and industry standards that affect your project

**64. You are managing a construction project to install new door frames in an office building. You planned on spending \$12,500 on the project, but your costs are higher than expected, and now you're afraid that your project is spending too much money. What number tells you the difference between the amount of money you planned on spending and what you've actually spent so far on the project?**

- A. AC
- B. SV
- C. CV
- D. VAC

**65. Tom is the project manager on a construction project. Midway through his project, he realizes that there's a problem with the lumber they've been using in a few rooms and they're going to have to tear down some of the work they've done and rebuild. One of his team members suggests that the defect isn't bad enough to cause all of that re-work. Tom says that he's worked on a project that made this same mistake before and they ended up having to redo the work when inspectors looked at the house. He convinces the team member that it's probably better to fix it now than later. What kind of power is he using to make the decision?**

- A. Legitimate
- B. Expert
- C. Referent
- D. Reward

**66. Which of the following is NOT one of the most common sources of project conflict?**

- A. Schedules
- B. Priorities
- C. Resources
- D. Costs

**67. Your company's quality assurance department has performed a quality audit on your project. They have found that your team has implemented something inefficiently, and that could lead to defects. What's the NEXT thing that should happen on your project?**

## Exam Questions

- A. You work with the quality department to implement a change to the way your team does their work
- B. You document recommended corrective actions and submit them to the change control board
- C. You add the results of the audit to the lessons learned
- D. You meet with the manager of the quality assurance department to figure out the root cause of the problem

**68. A junior project manager at your company does not know how to perform earned value analysis. You spend a weekend with him to teach him how to do this. This is an example of:**

- A. Contributing to the project management body of knowledge
- B. Fraternizing, and should be discouraged
- C. Unpaid overtime
- D. Giving access to proprietary information, and should be reported to PMI

**69. Your client has terminated your project before it is complete. Which of the following is true?**

- A. You must stop all work and release the team immediately
- B. You must work with the team to document the lessons learned
- C. You must keep the team working on the project to give your senior management time to talk to the client
- D. You must update the project management plan to reflect this change

**70. When you look at a control chart that measures defects in the product produced by your project, you find that seven values are showing up below the mean on the chart. What should you do?**

- A. Look into the process that is being measured; there's probably a problem there
- B. Ignore the anomaly; this is the rule of seven, so statistically the data doesn't matter
- C. This means that the mean is too high
- D. You should adjust your lower control limit—the values indicate a problem with where the limits have been set

**71. A project manager uses a facilitator to gather opinions from experts anonymously. What risk identification tool or technique is being performed?**

- A. Brainstorming
- B. Delphi Technique
- C. Interviews
- D. SWOT Analysis

## Exam Questions

**72. You have just been authorized to manage a new project for your company. Which of the following BEST describes your first action?**

- A. Create the work breakdown structure
- B. Develop the project management plan
- C. Start working on the project charter
- D. Figure out who has a stake in the project

**73. You're the project manager on a software project that is planning out various approaches to technical work. There's a 20% chance that a component you are going to license will be difficult to integrate and cost \$3,000 in rework and delays. There's also a 40% chance that the component will save \$10,000 in time and effort that would have been used to build the component from scratch. What's the EMV for these two possibilities?**

- A. \$13,000
- B. \$7,000
- C. \$3,400
- D. -\$600

**74. You are managing a software engineering project, when two team members come to you with a conflict. The lead developer has identified an important project risk: you have a subcontractor that may not deliver on time. Another developer doesn't believe that the risk is likely to happen; however, you consult the lessons learned from previous projects and discover that subcontractors failed to deliver their work on two previous projects. You decide that the risk is too big; you terminate the contract with the subcontractor, and instead hire additional developers to build the component. Both team members agree that this has eliminated the risk. Which of the following BEST describes this scenario?**

- A. Transference
- B. Mitigation
- C. Avoidance
- D. Acceptance

**75. Which of the following BEST describes the contents of a WBS Dictionary entry?**

- A. The definition of the work package including its net present value
- B. Work Package ID and Name, Statement of Work, Required Resources, and Monte Carlo Analysis
- C. Work Package ID and Name, Statement of Work, Risk Register, Earned Value Calculation, Scheduled Complete Date, and Cost
- D. Work Package ID and Name, Statement of Work, Responsible Organization, Schedule Milestones, Quality Requirements, Code of Account Identifier, Required Resources, Cost Estimate

## Exam Questions

**76. Two of your project team members approach you with a conflict that they are having with each other over the technical approach to their work. One of the two people is very aggressive, and tries to get you to make a decision quickly. The other team member is quiet, and seems less willing to talk about the issue. The conflict is starting to cause delays, and you need to reach a decision quickly. What's the BEST approach to solving this conflict?**

- A. Tell the team members that they need to work this out quickly, because otherwise the project could face delays
- B. Since it's a technical problem, tell the team members that they should take it to the functional manager
- C. Confront the issue, even though one team member is hesitant
- D. Escalate the issue to your manager

**77. Tom is a project manager on an industrial design project. He is always watching when his team members come into the office, when they take their breaks, and when they leave. He periodically walks around the office to be sure that everyone is doing work when they are at their desks and he insists that he make every project decision, even minor ones. What kind of manager is he?**

- A. Theory X
- B. Theory Y
- C. Cost cutter
- D. Effective

**78. You are the project manager on a construction project. As you're planning out the work your team will do, you divide up all of the work into work packages and create a WBS that shows how they fit into categories. For each one of the work packages, you write down details such as initial estimates and information about what account it should be billed against. Where do you store all of that information?**

- A. Scope Management Plan
- B. WBS
- C. WBS Dictionary
- D. Project Scope Statement

**79. You are managing a project with an EV of \$15,000, PV of \$12,000, and AC of \$11,000. How would you BEST describe this project?**

- A. The project is ahead of schedule and within its budget
- B. The project is behind schedule and within its budget
- C. The project is ahead of schedule and over its budget
- D. The project is behind schedule and over its budget

## Exam Questions

**80. You are using a Pareto chart to examine the defects that have been found during an inspection of your product. Which process are you performing?**

- A. Perform Quality Assurance
- B. Perform Quality Planning
- C. Perform Quality Control
- D. Verify Scope

**81. A project manager is faced with two team members who have conflicting opinions. One team member explains her side of the conflict. The other team member responds by saying, "I know you'll never really listen to my side, so let's just go with her opinion and get back to work." This is an example of:**

- A. Withdrawal
- B. Compromise
- C. Smoothing
- D. Forcing

**82. Complete the following sentence: "The later a defect is found, \_\_\_\_\_."**

- A. the easier it is to find
- B. the more expensive it is to repair
- C. the less important it is to the product
- D. the faster it is to repair

**83. Your top team member has performed extremely well, and you want to reward her. She knows that you don't have enough money in the budget to give her a bonus, so she approaches you and requests an extra day off, even though she is out of vacation days. She asks if she can take one of her sick days, even though the company doesn't allow that. Which of the following is correct?**

- A. You should give her the time off, because McClelland's Achievement Theory states that people need achievement, power, and affiliation to be motivated
- B. You should give her the time off, because Expectancy Theory says that you need to give people an expectation of a reward in order to motivate them
- C. You should give her the time off, because a Theory Y manager trusts the team
- D. You should not give her the time off

**84. Which of the following is NOT a tool or technique of Perform Qualitative Risk Analysis?**

- A. Risk urgency assessment
- B. Expected monetary value analysis
- C. Probability and impact matrix
- D. Risk categorization

## Exam Questions

**85. While creating a project charter, you discover a new project management software tool has come onto the market. You spend the weekend taking an online tutorial to learn about it. This is an example of:**

- A. An assigned project manager using authority and responsibility
- B. Not paying for copyrighted software
- C. Contributing to the project management body of knowledge
- D. Enhancing personal professional competence

**86. Which of the following is NOT a tool in Identify Risks?**

- A. Brainstorming
- B. Risk Urgency Assessment
- C. Delphi technique
- D. SWOT Analysis

**87. You are managing a software engineering project, when two team members come to you with a conflict. The lead developer has identified an important project risk: you have a subcontractor that may not deliver on time. The team estimates that there is a 40% chance that the subcontractor will fail to deliver. If that happens, it will cost an additional \$15,250 to pay your engineers to rewrite the work, and the delay will cost the company \$20,000 in lost business. Another team member points out an opportunity to save money in another area to offset the risk: if an existing component can be adapted, it will save the project \$4,500 in engineering costs. There is a 65% probability that the team can take advantage of that opportunity. What is the expected monetary value (EMV) of these two things?**

- A. - \$14,100
- B. \$6,100
- C. - \$11,175
- D. \$39,750

**88. Your project team has completed the project work. All of the following must be done before the project can be closed EXCEPT:**

- A. Ensure that the schedule baseline has been updated
- B. Get formal acceptance of the deliverables from the customer
- C. Make sure the scope of the project was completed
- D. Verify that the product acceptance criteria have been met

**89. During procurement closure, a procurement audit includes all of the following EXCEPT:**

- A. Reviewing the contract terms to ensure that they have all been met
- B. Identifying successes and failures that should be recognized
- C. Documenting lessons learned
- D. Using the payment system to process consideration as per the terms of the contract

## Exam Questions

90. You are reviewing performance goals to figure out how much bonus to pay to your team members. What document would you consult to find your team's bonus plan?

- A. The reward and recognition plan
- B. The staffing management plan
- C. The human resource management plan
- D. The project's budget

91. You're managing a construction project to install several hundred air conditioner panels in a new office building. You have completed 350 panels out of a total of 900 planned panels, but according to your schedule you should have completed 400 of them. Your company's contract states that you'll be paid a fixed price of \$75 per panel. You've spent \$45,000 so far on the project. Which of the following BEST describes your situation?

- A. The CPI is .813, which means your project is currently over your budget
- B. The CV is -\$4,350, which means your project is currently over your budget
- C. The TCPI is 1.833, which is the minimum CPI you need to stay within budget
- D. The SPI is .84, which means your project is behind schedule

92. Your team has identified a risk with some of the chemicals you are using on your highway construction project. It is really difficult to mix them just right and, based on past projects, you've figured out that there's a high probability that about 14% of the chemical supply will be lost in mixing problems. You decide to buy an extra 15% of the chemicals up front so that you will be prepared for those losses and your project won't be delayed. Which response strategy are you using?

- A. Avoid
- B. Accept
- C. Mitigate
- D. Transfer

93. A project manager is planning the staffing levels that will be needed through the course of her project. She figures out the number of people that will be needed in each role over time and displays that information in a chart as part of her staffing management plan. What is that chart called?

- A. Gantt chart
- B. RACI matrix
- C. Organization chart
- D. Resource histogram



## Exam Questions

94. Which of the following is NOT part of a typical change control system?

- A. Approval
- B. Change control board
- C. Project management information system
- D. Stakeholder analysis

95. A notice sent to a subcontractor about the contract is an example of which kind of communication?

- A. Informal verbal
- B. Formal written
- C. Formal verbal
- D. Informal written

96. You need to determine when to release resources from your project. Which part of the staffing management plan will be most useful for this?

- A. Resource histogram
- B. Safety procedures
- C. Recognition and rewards
- D. Training needs

97. Which of the following is NOT a type of communication ?

- A. Formal written
- B. Paralingual
- C. Nonverbal
- D. Noise

98. A company is about to begin work on a large construction project to build four new buildings for a bank that wants to open new branches. The sponsor is writing a project charter. She recalls that a previous project the company performed for another bank ran over budget because the team had underestimated the effort required to install the reinforced walls in the vault. The previous project manager had documented the details of the lessons learned from this project. Where should the sponsor look for these lessons learned?

- A. The project records management system
- B. The company's organizational process assets
- C. The project's work performance information
- D. The project's performance reports

## Exam Questions

**99. The customer has reviewed the deliverables of a project and finds that they are acceptable, and must now communicate that acceptance to the project manager. Which form of communication is appropriate?**

- A. Informal written
- B. Informal verbal
- C. Formal written
- D. Formal verbal

**100. Which of the following is NOT found in a project charter?**

- A. The summary budget
- B. High-level requirements
- C. Procedures for managing changes to contracts
- D. Responsibility and name of the person authorized to manage the project

**101. Which of the following is NOT a project constraint?**

- A. Cost
- B. Resources
- C. Procurements
- D. Scope

**102. What is a risk owner?**

- A. The person who monitors the watchlist that contains the risk
- B. The person who meets with stakeholders to explain the risk
- C. The person who makes a risk happen
- D. The person who is responsible for the response plan for the risk

**103. You are managing a software engineering project, when two team members come to you with a conflict. The lead developer has identified an important project risk: you have a subcontractor that may not deliver on time. Another developer doesn't believe that the risk is likely to happen; however, you consult the lessons learned from previous projects and discover that subcontractors failed to deliver their work on two previous projects. The lead developer suggests that you have two team members take three weeks to research the component being built by the subcontractor, and come up some initial work that you can fall back on in case that subcontractor does not deliver. You decide to follow the lead developer's advice over the objections of the other team member. Which of the following BEST describes this scenario?**

- A. Transference
- B. Mitigation
- C. Avoidance
- D. Acceptance

## Exam Questions

104. You are managing a project with AC = \$25,100, ETC = \$45,600, VAC = -\$2,600, BAC = \$90,000, and EAC = \$92,100. Your sponsor asks you to forecast how much money you expect to spend on the remainder of the project. Which is the BEST estimate to use for this forecast?

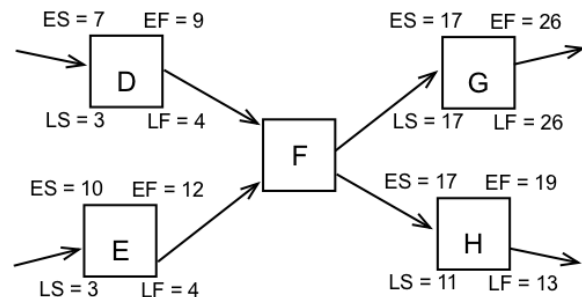
- A. \$45,600
- B. \$87,400
- C. \$90,000
- D. \$92,100

105. Which is the BEST description of project scope?

- A. All of the features and deliverables your project will deliver
- B. All of the products your project will make
- C. All of the people involved in your project
- D. All of the work you will do to build the product

106. Given this portion of the network diagram to the right, what's the LF of activity F?

- A. 10
- B. 11
- C. 16
- D. 17



107. A team member is showing up late to work and leaving early, and it is affecting the project. The project manager decides that the team member must be reprimanded. Which of the following is the BEST way to handle this situation?

- A. In a one-on-one meeting with the team member
- B. At the next team meeting
- C. In a private meeting with the team member and his functional manager
- D. Over email

108. You are managing an accounting project when a new CFO is hired at your company. He'll be affected by all accounting projects in your company. What's the BEST thing for you to do?

- A. Show him the Project Charter so that he knows that you are in charge of the project
- B. Work with him to understand the current requirements and determine if he has new ones to add to the project
- C. Keep working on the project and get his feedback when he can review the finished product
- D. Add him to the communications plan

## Exam Questions

**109. You're managing an industrial design project. Your project is currently in the Initiating phase. The project charter has been created, and you are working on identifying the stakeholders. Which of the following is NOT something that you should do?**

- A. Review lessons learned from prior projects
- B. Perform a stakeholder analysis
- C. Review procurement documents
- D. Create the change control system

**110. Alberto is the project manager of a software implementation project. His company has made an organization-wide decision to move to a new accounting and human resources software package. He has read that some projects to implement the same package have resulted in the loss of personnel data when they tried to import it into the new system. He backs up the data so that it could be restored in the event of such a problem but also buys insurance to cover the cost of keying in the data manually if the implementation doesn't work. Which response strategies are Alberto using?**

- A. Mitigating and Accepting
- B. Mitigating and Avoiding
- C. Mitigating and Transferring
- D. Mitigating and Sharing

**111. Rekha is a project manager on a large construction project. Late in the project, her client demands a big change. She assesses the impact of the change and tells the client how much time and money it will cost. But the client says that he doesn't have the time or budget to allow the change. What's the BEST way for Rekha to handle this situation?**

- A. Have her senior managers meet with the client to explain the situation
- B. Hold a meeting with the client to figure out why he's asking for the change
- C. Do nothing; she's the project manager, so she sets the rules
- D. Have the client find more money for the budget

**112. You are conducting a status meeting and monitoring your risk register when you discover a risk that remains even after you implement all of your response strategies. What kind of risk is this and what should you do about it?**

- A. It's a secondary risk; you don't need to worry about it
- B. It's a residual risk; you need to plan a response strategy for it
- C. It's a residual risk; you don't need to plan a response strategy for it because you've already implemented all of the risk responses you can plan for
- D. It's a contingency reserve. You should only use it if the first risk occurs

## Exam Questions

113. Rekha is a project manager on a large construction project. Late in the project, her client demands a big change. She assesses the impact of the change and tells the client how much time and money it will cost. But the client won't allow any change to the schedule and won't pay anything more for change. Rekha explains that the proposed change is well outside the documented scope of the original work. The client tells Rekha that he doesn't care what was in the original scope and that she needs to implement the change with no impact to schedule or budget. What conflict resolution technique is he the client using?

- A. Confronting
- B. Withdrawal
- C. Smoothing
- D. Forcing

114. Which of the following is NOT a tool of the Define Scope process?

- A. Facilitated Workshops
- B. Constrained Optimization
- C. Alternatives Identification
- D. Product Analysis

115. Which of the following BEST describes the records management system?

- A. A system to store contracts and project records for future project managers to reference
- B. A library that stores the lessons learned for past projects
- C. A filing system to store paid invoices
- D. A system to store human resource records, salary information and work performance history

116. A project manager is negotiating with a contractor. Neither has a good idea of how long the project will take, or how much the materials will cost. Which contract type is MOST appropriate for this project?

- A. Cost plus fixed fee (CPFF)
- B. Time and Materials (T&M)
- C. Cost plus award fee (CPAF)
- D. Firm fixed price (FFP)

117. Which is NOT an example of cost of quality?

- A. The cost of inspecting your product to be sure that it meets requirements
- B. The cost of reviewing documents used to produce your product to be sure that they do not have defects
- C. The cost of training your team on techniques that will help them avoid defects
- D. The cost of contracting another company to build part of the product

## Exam Questions

**118. Which of the following is NOT a stakeholder?**

- A. A project team member
- B. An attorney from your company's competitor
- C. A representative from your project team's union
- D. The project sponsors

**119. What is the main output of the Define Scope process?**

- A. Requirements Documentation
- B. Scope Definition
- C. Scope Dictionary
- D. Project Scope Statement

**120. Paul is a project manager for an industrial design project. The project has a 60% chance of making the company \$230,000 over the next year. It has a 40% chance of costing the company \$150,000. What's the project's EMV?**

- A. \$138,000
- B. \$60,000
- C. \$78,000
- D. \$230,000

**121. The project manager for a construction project discovers that the local city council will vote on a zoning change that would open up a new neighborhood to commercial building. She contacts other construction companies in the area that would benefit from the change to ask them to attend the council meeting in order to convince the city council to vote for the change. A "Yes" vote will benefit all of the companies. This is an example of which risk response strategy?**

- A. Mitigate
- B. Share
- C. Exploit
- D. Enhance

**122. You are acquiring a project team, and as part of that process you must interview new project managers for your company. One of the candidates claims to be a PMP-certified project manager, but you discover that she has never taken the PMP exam. What is the BEST way to handle this situation?**

- A. Consult the resource management plan to see if PMP certification is a resource requirement
- B. Report the person to your manager
- C. Report the person to PMI
- D. Call the police

## Exam Questions

123. Which of the following types of power is the most effective in leading teams?

- A. Expert
- B. Referent
- C. Reward
- D. Punishment

124. You are being hired to manage a highway construction project for a contractor working for Smith County. The sponsor is a project officer who works for the Smith County municipal government. You have three separate teams working all three shifts, with a separate foreman for each team. Each team has members from two different unions, and each union has its own representative. Who is the BEST person to approve the project charter?

- A. The project manager
- B. The Smith County project officer
- C. The team foreman
- D. The two union representatives

125. Which of the following is NOT an input of the Administer Procurements process?

- A. Work Performance Information
- B. Procurement Management Plan
- C. Contract
- D. Procurement Documents

126. While working on the WBS for a large project that spans multiple teams, you meet with a fellow project manager to discuss his portion of the work. He tells you in confidence that he lied about having a PMP certification, and never actually passed the exam. What is the BEST way to handle this situation?

- A. Report the person to PMI
- B. Report the person to his manager
- C. Ask him to tell the truth to his manager
- D. Do nothing because you were told this in confidence

127. Your team has recommended a change to the Verify Scope process. What's the first thing you should do?

- A. Implement the change
- B. Analyze the change versus the Project Management plan to see what its impact will be
- C. Write up a change request
- D. Tell your team that the process has already been decided and they should follow it

## Exam Questions

**128. As you are executing your project you are constantly checking your risk register to be sure that you have planned responses for all of your risks. At one team status meeting, you find that a lower-priority risk has suddenly become more likely. Where do you keep information about low-priority risks?**

- A. Triggers
- B. The watchlist
- C. Risk Management Plan
- D. Qualitative analysis documents

**129. Which of the following are NOT all examples of project documents?**

- A. Scope Baseline, Project Funding Requirements, Stakeholder Requirements
- B. Activity List, Stakeholder Register, Teaming Agreements
- C. Forecasts, Risk Register, Quality Metrics
- D. Basis of Estimates, Resource Requirements, Statement of Work

**130. You're managing a project with a schedule performance index (SPI) of 1.07 and a cost performance index (CPI) of 0.94. How would you BEST describe this project?**

- A. The project is ahead of schedule and within its budget
- B. The project is behind schedule and within its budget
- C. The project is ahead of schedule and over its budget
- D. The project is behind schedule and over its budget

**131. Which of the following is the BEST example of a reward system?**

- A. The team member who works the hardest will receive \$1,000
- B. Everyone will get a bonus of \$500 if the project meets its quality goals, \$500 if it meets its budget goals, and \$600 if it comes in on time
- C. The five team members who put in the most hours will get a trip to Disneyland
- D. The team will only get a bonus if the project comes in 50% under budget, schedule, and quality metric goals; even though the team leads know this goal is unrealistic, they agree that it will motivate the team to work harder.

**132. There are 17 people on a project. How many lines of communication are there?**

- A. 136
- B. 105
- C. 112
- D. 68

**133. Which of the following project selection methods is NOT a comparative approach (or benefit measurement model)?**

- A. Linear programming
- B. Murder boards



## Exam Questions

- C. Benefit-to-cost ratios
- D. Peer review

**134. You're managing a team of project managers, and as part of developing the team you hold a PMP study group so that you and your coworkers can work together to study for the exam. One person recently took and passed the exam, and has offered to give you all of the questions he can remember. How should you respond?**

- A. Accept the questions, but to be fair to everyone in the study group you should make sure everyone gets a copy
- B. Refuse the offer, but encourage other study group members to make up their own minds
- C. Refuse the offer, and report the person to your manager
- D. Refuse the offer, and report the person to PMI

**135. The project charter is typically approved by the project sponsor, although some charters can be approved by key stakeholders instead. Which of the following BEST describes the role of the project sponsor on the project?**

- A. The sponsor manages the project
- B. The sponsor provides funding for the project
- C. The sponsor verifies that all of the work was completed
- D. The sponsor negotiates all contracts

**136. Two of your project team members approach you with a conflict that they are having with each other over the technical approach to their work. One of the two people is very aggressive, and tries to get you to make a decision quickly. The other team member is quiet, and seems less willing to talk about the issue. The conflict is starting to cause delays, and you need to reach a decision quickly. You spend the weekend studying conflict resolution techniques, which is an example of:**

- A. Contributing to the project management body of knowledge
- B. Maslow's Hierarchy of Needs
- C. Enhancing personal professional competence
- D. Confronting (or problem-solving)

**137. You are managing a software project. The stakeholders have found a few requirements that were missed in the initial Project Scope Statement. You put the requested changes through change control and they are approved so you need to update the Scope Statement to include the new work. Where can you find the most updated version of the Scope Statement?**

- A. In the Configuration Management System
- B. In the Document Repository
- C. In the Project Management Plan
- D. In the Communications Management Plan

## Exam Questions

**138. After a status meeting, one of your team members, John, pulls you aside and tells you that he was insulted by a comment from another team member. He felt that the comment was racist. You meet with the team member who made the comment, Suzanne, but she says that the other team member's performance has been very poor. She has never made a comment like this before at the company. You review the records, and see that she is correct—he has consistently delivered lower-quality work than any other team member. What is the BEST way to handle this situation?**

- A. At the next team meeting, reprimand John for his poor performance and Suzanne for the racist comment
- B. Get John additional help for his poor performance
- C. Reprimand Suzanne in private for her racist comment, and follow any company policies for reporting racism among employees
- D. Suzanne has never had this problem before, so she should be given another chance

**139. You're managing a project that is currently executing. You're evaluating the work being performed by constantly measuring the project performance, and recommending changes, repairs, and corrections where necessary. What process are you performing?**

- A. Integrated Change Control
- B. Monitor & Control Project Work
- C. Control Scope
- D. Communications Management

**140. Which of the following helps you identify the root cause of 80% of the defects in your project using the 80/20 rule?**

- A. Scatter chart
- B. Control chart
- C. Cause-and-effect diagram
- D. Pareto chart

**141. As you complete each deliverable for your project, you check that it is correct along with your stakeholders and sponsors. Which process are you performing?**

- A. Define Scope
- B. Define Activities
- C. Verify Scope
- D. Control Scope

**142. You are a project manager on a large military contract that involves 7 subcontractor companies and a total of 1,253 team members, 752 stakeholders and sponsors, and 14 project managers (including you). You need to get a handle on the communications channels, because otherwise your project will devolve into chaos. How many potential channels of communication are there on this project?**

## Exam Questions

- A. 2019
- B. 91
- C. 2,037,171
- D. No way to determine

**143. Joe is an excellent programmer. He was promoted to a role of Project Manager because he understands technology better than anyone else in the company. Unfortunately, he is having trouble doing the project management job and his projects are failing. What is this an example of?**

- A. Gold plating
- B. Halo effect
- C. Pre-assignment
- D. Ground rules

**144. Which of the following describes the contents of a staffing management plan?**

- A. Organizational Chart, Training Needs, Estimated Labor Cost, and Release Criteria
- B. Sponsor, Organizational Chart, Verify Scope Plan, and Schedule
- C. RACI Matrix, Organizational Chart, Performance Improvement Plan, and Budget
- D. Resource Histogram, Training Needs, Recognition and Rewards, and Release Criteria

**145. A member of your seven-person project team comes up with a controversial idea. Two others agree that it should be pursued. Two members of the team are opposed to it, while the remaining two have a different approach. You end up going with the controversial idea. This is an example of:**

- A. Unanimity
- B. Majority
- C. Plurality
- D. Dictatorship

**146. You have been hired by a contractor, who wants you to manage a construction project for one of their clients. The project team has been working for two months, and is 35% done with the job. Two of your team members come to you with a conflict about how to handle the ongoing maintenance for a piece of equipment. You know that they can safely ignore the problem for a while, and you're concerned that if your project falls behind schedule before next week's stakeholder meeting, it will cause problems in the future. You tell the two team members that the problem really isn't as bad as they think it is, and if they take a few days to cool off about it you'll help them with a solution. This approach to conflict resolution is known as:**

- A. Withdrawal
- B. Compromise
- C. Smoothing
- D. Forcing

## Exam Questions

147. Which of the following is NOT true about the Project Charter?

- A. It formally assigns the project manager
- B. It is always created by the project manager
- C. It contains external constraints and assumptions
- D. Includes a high-level milestone schedule

148. You're managing a construction project to install several hundred air conditioner panels in a new office building. Every floor has identical panels. The customer, a construction contracting company, has provided specifications for the installations. The team is using a process to install and verify each panel. As the team completes each panel, your team's quality control inspector measures it and identifies defects. The root cause of each defect is identified. You want to identify the ongoing trends of defective installations. Which is the BEST tool to use for this?

- A. Control chart
- B. Fishbone diagram
- C. Run chart
- D. Pareto chart

149. Which risk analysis tool is used to model your risks on a computer to show random probabilities?

- A. Computerized risk audit
- B. Monte Carlo analysis
- C. EMV analysis
- D. Delphi technique

150. You are a project manager for a software project. As you are defining the scope of the work you need to do, you sit down with all of the project's stakeholders and record all of the requirements you can get from them. Which of the following is NOT a valid requirement from stakeholder analysis?

- A. The work the team does must be better than they did on their last project
- B. There can be no more than 5% schedule variance on the project
- C. The quality of the product must fit within organizational metrics for software quality
- D. The budget must be within 10% of our projected cost

151. There have been several rounds of layoffs at your company. Now your project team is worried about their job security, and you've noticed that their performance has decreased significantly because of it. This is predicted by which motivational theory?

- A. McGregor's Theory of X and Y
- B. Maslow's Hierarchy of Needs
- C. McClelland's Achievement Theory
- D. Herzberg's Motivation-Hygiene Theory

## Exam Questions

**152. Which of the following is NOT included in a cost of quality calculation?**

- A. Team members' time spent finding and repairing defects
- B. Quality managers' time spent writing quality standards
- C. Project managers' time spent creating the project management plan
- D. Team members' time spent reviewing specifications, plans, and other documents

**153. Which of the following contracts has the MOST risk for the seller?**

- A. Cost plus fixed fee (CPFF)
- B. Time and Materials (T&M)
- C. Cost plus percentage of costs (CPPC)
- D. Fixed price (FP)

**154. You are managing an industrial design project for an important client. Two of your team members have a disagreement on project priorities. One person wants to do certain activities first, while the other feels they should be left until the end of the project. You work with both people to forge a compromise where those activities are neither first nor last, but instead done in the middle of the project. Nobody is particularly unhappy with this solution. Another name for a compromise is a:**

- A. Win-win solution
- B. Win-lose solution
- C. Lose-lose solution
- D. Standoff solution

**155. A project manager on a construction project includes a line item in the budget for insurance for the equipment and job site. This is an example of:**

- A. Transference
- B. Mitigation
- C. Avoidance
- D. Acceptance

**156. You are talking to experts and gathering independent estimates for your contract. Which of the following BEST describes what you are doing?**

- A. Plan Procurements
- B. Conduct Procurements
- C. Administer Procurements
- D. Close Procurements

## Exam Questions

**157. A project manager is creating a report of the final status of a closed project to the stakeholders. Which of the following is NOT used in a final project report to communicate the status of a project?**

- A. Variance information
- B. Lessons learned
- C. Scope baseline
- D. Status of deliverables

**158. You are the project manager for a railroad construction project. Your sponsor has asked you for a forecast for the cost of project completion. Which of the following is the BEST metric to use for forecasting?**

- A. EV and AC
- B. SV and CV
- C. ETC and VAC
- D. SPI and CPI

**159. Information about the project must be distributed to all stakeholders. Which of the following process outputs is used to report the status and cost of project activities?**

- A. Work performance information
- B. Issue logs
- C. Status reports
- D. Project records

**160. A company uses a management technique that employs quality assurance techniques to continuously improve all processes. This is called:**

- A. Just In Time Management
- B. Kaizen
- C. Ishikawa Diagrams
- D. Inspection

**161. You are initiating project that has a virtual team. Half of your team members will be located in another country, where they are working for a subcontractor. The subcontractor's team members speak a different dialect of English than your team does. After a conference call to review the project charter, two of your team members make jokes about the way your subcontractor's team members speak. What is the BEST way to handle this situation?**

- A. Correct the team members individually, and hold a training session for your team to help remove communications barriers
- B. Immediately correct the two people in front of the rest of the team
- C. Report the team members to senior management and recommend that they be punished
- D. Remove noise from the communication by contacting the subcontractor and requesting that the team adjust the way they speak

## Exam Questions

**162. Mike is a project manager for an IT technology implementation project. He is using an Ishikawa diagram to figure out what could cause potential risks on his project. Which process is he doing?**

- A. Identify Risks
- B. Perform Qualitative Risk Analysis
- C. Perform Quality Control
- D. Plan Risk Responses

**163. Amit is the manager of a software project. His client has agreed on a Project Scope Statement at the beginning of the project, but whenever the client verifies deliverables, he comes up with features that he would like to add into the product. Amit is working with the client to find what requirements were missed in the planning stages of the project and how to plan better in the future. What is the BEST description of his project's current situation?**

- A. Gold plating
- B. Scope creep
- C. Alternatives analysis
- D. Schedule variance

**164. You are executing a project, and as part of developing the project team you create materials for a PMP training seminar. Afterwards, you decide to offer it to all other project managers in your company to help them obtain enough hours to qualify to take the PMP exam. This is an example of:**

- A. Organizational process assets
- B. Contributing to the project management body of knowledge
- C. Cheating, which should be reported to PMI
- D. Lessons learned

**165. You are managing a construction project to install wiring in an office building. While verifying that the scope of the work has been completed, you discover that one of your team members has taken a box of cable from the job site so he can wire his attic. What is the BEST way to respond?**

- A. Do nothing
- B. Report the team member to your manager
- C. Report the team member to PMI
- D. Call the police

**166. You are working with potential sponsors to determine which project your company will pursue. Based on the benefit-to-cost (BCR) ratios, which of the following four projects should you recommend?**

- A. Project A has a BCR of 5:2
- B. Project B has a BCR of 5:4
- C. Project C has a BCR of 3:1
- D. Project D has a BCR of 2:1

## Exam Questions

**167. What are the 5 kinds of power?**

- A. Legitimate, expert, reward, political, and bargaining
- B. Legitimate, expert, reward, political, and punishment
- C. Legitimate, expert, reward, economic, and bargaining
- D. Legitimate, expert, reward, referent, and punishment

**168. You're managing a software project. Your team has discovered a problem, and as a result you've requested a change. The change will cost the project an extra three weeks, but without it several stakeholders might have problems with the final product. What's the NEXT thing that you should do?**

- A. Instruct the team to make the change
- B. Call a meeting with each stakeholder to figure out whether or not to make the change
- C. Document the change and its impact, and put it through the change control system
- D. Don't make the change because it will delay the project

**169. Which of the following is NOT part of the Close Project or Phase process?**

- A. Making sure that all exit criteria have been met
- B. Obtaining formal acceptance of all deliverables from all stakeholders
- C. Moving the project's deliverables to the next phase or into production
- D. Writing down lessons learned

**170. Which of the following are valid ways to breakdown the work in a WBS?**

- A. By risk or quality metric
- B. By product feature or unit of work
- C. By project phase or project deliverable
- D. By charge code or initial estimate

**171. Which of the following is an output of Direct and Manage Project Execution?**

- A. Work Performance Information
- B. Statement of Work
- C. Approved Change Requests
- D. Contract

**172. You are working on a construction project. You, your team, and your senior manager all feel that the work is complete. Your stakeholders have communicated their final acceptance of the project. You are now meeting with your team to update the organizational process assets with a record of knowledge gained about the project to help future project managers with their projects. This is BEST described as:**



## Exam Questions

- A. Lessons learned
- B. Project records
- C. Project management information system (PMIS)
- D. Work performance information

**173. Which of the following tools is used to document the lessons that were learned when the contract was administered?**

- A. Quality audit
- B. Buyer-conducted performance review
- C. Contract review
- D. Procurement audit

**174. You are managing a project to build a new wing onto a local school building over a summer break. One night, the school and your construction site are destroyed by a tornado. Your client demands that you continue work despite the disaster, but you consult the contract, and find a clause that states that you are not responsible for any more work. This is referred to as:**

- A. A force majeure clause
- B. An "act of God" clause
- C. Mitigation
- D. An ex parte communication

**175. A project manager is running into problems with the team. People are repeatedly running into trouble over seemingly small problems: who takes notes at meetings, what dress is appropriate for the office, who people need to notify when they take a day off. The problems started out small, but as more people run into more problems the situation is rapidly escalating. This situation is most likely caused by a lack of:**

- A. Sensitivity training
- B. Common courtesy
- C. A reward system
- D. Ground rules

**176. Which of the following BEST describes when you perform the Monitor and Control Project Work process?**

- A. Continuously throughout the project
- B. As soon as every deliverable is completed
- C. At scheduled milestones or intervals during the project
- D. At the end of every project phase

## Exam Questions

177. Which of the following is NOT an output of Monitor & Control Project Work?

- A. Project management plan updates
- B. Change request status updates
- C. Change requests
- D. Project document updates

178. You are the project manager of a software project. Two developers, Bill and Alfredo, are having an argument about how to implement a feature. Bill thinks that it's more important that the project get done quickly, so he's suggesting that you re-use some work that's been done on a previous project to get started. Alfredo thinks that that work doesn't apply to this project and will just waste time. Bill is almost always right about these things and he's very influential on the team, so it's important that you keep him happy. What should you do?

- A. Since you do want to get the project done quickly, you side with Bill
- B. Side with Alfredo; it could end up taking longer in the end
- C. Call a meeting to hear both sides of the situation and decide in favor of the solution that is best supported by objective evidence
- D. Call a meeting in private with Bill to hear more about his position

179. Which of the following is NOT an example of a deliverable?

- A. Project Management Plan
- B. Project Schedule
- C. Work Breakdown Structure
- D. Parametric Estimation

180. Which is NOT an input to the Create WBS process?

- A. Project Scope Statement
- B. Organizational Process Assets
- C. Requirements Documentation
- D. WBS Dictionary

181. Which of the following is the correct order of actions that you take during the Closing processes?

- A. Get formal acceptance, release the team, write lessons learned, close the contract
- B. Write lessons learned, release the team, get formal acceptance, close the contract
- C. Get formal acceptance, write lessons learned, release the team, close the contract
- D. Get formal acceptance, close the contract, write lessons learned, release the team

## Exam Questions

**182. At the beginning of the project, you hold a meeting with all of the stakeholders in your project in order to figure out how everyone will communicate as the work goes on. Which of the following terms best describes that meeting?**

- A. Qualitative Analysis
- B. Status meeting
- C. Communication Plan meeting
- D. Kick-off meeting

**183. You are managing a project with 23 team members and 6 key stakeholders. Two team members identify a problem with the current approach. Addressing that problem will require changes to the project plan and its subsidiary plans. One of the stakeholders previously indicated that any delays are unacceptable, and your team members tell you that it's possible the change could cause the team to miss at least one critical deadline. What is the BEST way to deal with this situation?**

- A. Analyze the impact that the change will have on the work to be done, the schedule, and the budget
- B. Deny the change because any delays are unacceptable
- C. Gather consensus among the team that you should make the change before approaching the stakeholders, so that they can see the team supports making the change
- D. Make the change to the project plan and subsidiary plans, and ask the team to implement the change

**184. You have been asked to select between three projects. Project A has a net present value of \$54,750 and will take six months to complete. Project B has a net present value of \$85,100 and will take two years to complete. Project C has a net present value of \$15,000 and a benefit-cost ratio of 5:2. Which project should you choose?**

- A. Project A
- B. Project B
- C. Project C
- D. There is not enough information to decide

**185. Which of the following is a defect?**

- A. A mistake made by a team member on the job
- B. A change that the team needs to make in how they do the work
- C. A project management plan that does not meet its requirements
- D. A change request that's been rejected by the change control board

## Exam Questions

**186.** A project manager is faced with two team members who have conflicting opinions. One team member explains her side of the conflict, and presents a possible solution. But before the other team member starts to explain his side of things, the project manager says, "I've heard enough, and I've decided to go with the solution I've heard." This is an example of:

- A. Withdrawal
- B. Compromise
- C. Smoothing
- D. Forcing

**187.** As you determine the requirements, constraints, and assumptions for the project you record them in which document?

- A. Project Management Plan
- B. Project Scope Statement
- C. Project Charter
- D. Communications Management Plan

**188.** You've been hired by a large consulting firm to evaluate a software project for them. You have access to the CPI and EV for the project, but not the AC. The CPI is .92, and the EV is \$172,500. How much money has actually been spent on the project?

- A. \$158,700
- B. \$172,500
- C. \$187,500
- D. There is not enough information to calculate the actual cost

**189.** Approved changes are implemented in which process?

- A. Direct and Manage Project Execution
- B. Monitor and Control Project Work
- C. Perform Integrated Change Control
- D. Develop Project Management Plan

**190.** You've been hired by a large consulting firm to lead an accounting project. You determine the needs of the project and divide the work up into work packages so that you can show how all of it fits into categories. What are you creating?

- A. A WBS
- B. A schedule
- C. A Project Scope Statement
- D. A contract

## Exam Questions

**191. Over half of conflicts on projects are caused by:**

- A. Bad habits, defects, technology
- B. Resources, priorities, schedules
- C. Budget, carelessness, personalities
- D. Technology, money, personalities

**192. Which of the following is NOT a tool or technique of Monitor and Control Risks?**

- A. Bringing in an outside party to review your risk response strategies
- B. Revisiting your risk register to review and reassess risks
- C. Using Earned Value analysis to find variances that point to potential project problems
- D. Gathering information about how the work is being performed

**193. You work for a consulting company and your team has implemented an approved scope change on your project. You need to inform your client that the change has been made. What's the best form of communication to use for this?**

- A. Formal verbal
- B. Formal written
- C. Informal written
- D. Informal verbal

**194. Which of the following is NOT typically found in a project charter?**

- A. Project requirements
- B. Authorization for a project manager to work on a project
- C. Work packages decomposed into activities
- D. An initial set of schedule milestones

**195. What are the strategies for dealing with positive risks?**

- A. Avoid, mitigate, transfer, accept
- B. Transfer, mitigate, avoid, exploit
- C. Exploit, share, enhance, accept
- D. Mitigate, enhance, exploit, accept

**196. In which process do you create the Risk Breakdown Structure?**

- A. Identify Risks
- B. Plan Risk Responses
- C. Perform Qualitative Risk Analysis
- D. Plan Risk Management

## Exam Questions

**197. Your project just completed, and one of your subcontractors has sent you floor seats to the next big hockey game to thank you for your business. What is the BEST way to respond?**

- A. Thank the subcontractor, but do not give him preference in the next RFP
- B. Thank the subcontractor, but politely refuse the gift
- C. Ask for tickets for the entire team, so that it is fair to everyone
- D. Report the subcontractor to PMI

**198. A project manager discovers that a project problem has occurred. The problem was never discussed during risk planning activities or added to the risk register, and it will now cost the project money. What is the BEST response?**

- A. Don't take any action, just accept that there's a problem that the team did not plan for
- B. Stop all project activity and approach senior management for advice
- C. Add the risk to the risk register and gather information about its probability and impact
- D. Use the management reserve to cover the costs of the problem

**199. You are managing a large construction project that's been broken down into subprojects (or phases). Each of these subprojects is scheduled to take between three and six months to complete. At the end of each subproject, you plan to go through the closing processes and document lessons learned. Which of the following BEST describes what you must do at the beginning of each subproject or phase?**

- A. Make sure you don't involve the team, to avoid introducing too much project management overhead
- B. Identify the stakeholders
- C. Use the Earned Value Technique to decide whether or not to finish the project
- D. Release all resources from the project and contact sellers to renegotiate all contracts

**200. Which of the following is NOT an output of the Manage Stakeholder Expectations process?**

- A. Change requests
- B. Deliverables
- C. Updates to the project management plan
- D. Organizational process asset updates

## Before you look at the answers...

Before you find out how you did on the exam, here are a few ideas to help make the material stick to your brain. Remember, once you look through the answers, you can use these tips to help you review anything you missed.

This is especially useful for conflict resolution questions – the ones where you’re presented with a disagreement between two people and asked how you’d handle it.

### 1 Don’t get caught up in the question.

If you find yourself a little confused about a question, the first thing you should do is try to figure out exactly what the question is asking. It’s easy to get bogged down in the details, especially if the question is really wordy. Sometimes you need to read a question more than once. The first time you read it, ask yourself, “What’s this question *really* about?”

### 2 Try this stuff out on your job.

Everything you’re learning about for the PMP exam is really practical. If you’re actively working on projects, then there’s a really good chance that some of the ideas you’re learning about can be applied to your job. Take a few minutes and think about how you’d use these things to make your projects go more smoothly.

### 3 Write your own questions.

Is there a concept that you’re just not getting? One of the best ways that you can make it stick to your brain is to write your own question about it! We included “Question Clinic” exercises in *Head First PMP* to help you learn how to write questions like the ones you’ll find on the exam. And if you visit <http://www.headfirstlabs.com/PMP>, you’ll find a fill-in form to help you construct your own questions—and you can see questions that other people have written. And that’s all going to help you understand the material better.

When you write your own question, you do a few things:

- You reinforce the idea and make it stick to your brain.
- You think about how questions are structured.

• By thinking of a real-world scenario where the concept is used, you put the idea in context and learn how to apply it.

And all that helps you recall it better!

### 4 Get some help!

Join the **free PMP study forums** at the Head First Labs website. That’s a great place to ask questions and find other people who are also studying for the exam. Visit <http://www.headfirstlabs.com/> and click on “Forums” to join.

## Exam Questions

### 1. Answer: C

Just because the change will help the project's timeline doesn't mean that it will be an overall benefit to the project. It's important to check how the project will impact the other two constraints as part of your change request. Once you know all the facts about the change, the change control board can make an informed decision about how to proceed.

### 2. Answer: A

Performance measurement is what you're doing when you look at the work that the team is performing in order to determine whether the project is ahead or behind schedule. A really good way to do that is to use schedule variance (SV) and schedule performance index (SPI) calculations.

### 3. Answer: B

Quality audits are when your company reviews your project to make sure that you are following all of the processes in your company correctly. They are a tool of the Perform Quality Assurance process.

### 4. Answer: A

When a change has been approved you always need to update the baseline and then implement the change. That way, you will be sure to track your performance versus new scope and schedule expectations and not the old ones.

### 5. Answer: A

Sexism, racism, or other discrimination should never be tolerated, no matter what the circumstances. You must separate your team from discriminatory practices, even if those practices are normal in the country where you're working.

Some things – like bribing officials – can differ from country to country, because a payment that's illegal in one country could be considered a customary fee in another. But sexism, racism and discrimination don't work like that. They're never acceptable, no matter what country you're in.

### 6. Answer: A

The project scope management plan is a really important tool in your project. It tells you exactly how you'll create the project scope, define the WBS, verify that the work has been done, and make changes to the scope. But it doesn't tell you about specific assumptions that you and the



## Answers

~~Exam Questions~~

team have made, or constraints on your project. To find those, you should look in the requirements documentation and the project scope statement.

↑ The Scope Baseline contains the WBS and project scope statement, so you'll find constraints and assumptions there, too!

**7. Answer: A**

Stakeholder Analysis is one of the tools and techniques of the Identify Stakeholders process. And that shouldn't really be a surprise. After all, the goal of stakeholder analysis is to write down the needs of your stakeholders. Identify Stakeholders is one of the processes in the Communications Management knowledge area, and answer A is the definition of Communications Management.

**8. Answer: C**

It's not enough that the Project Manager approves of the Project Management Plan; it needs to be approved by all of the stakeholders in the project. Everyone on the team should feel comfortable with the processes that are going to be used to do the work.

**9. Answer: B**

The most expensive defects are the ones introduced when the product is being designed. This is a little counterintuitive at first, but it really makes sense once you think about how projects are run. If your team introduces a defect into a product while it's being assembled, then they have to go back and fix it. But if there's a flaw in the design, then you have to halt production and go back and figure out all the things that flaw affected. You may have to order new parts, reassemble components, and maybe even go back and redesign the product from the ground up.

↑ That's why your Quality Management processes are so focused on reviewing EVERY deliverable – not just the final product, but all of the components, designs, and specifications, too.

**10. Answer: A**

This question is asking you to create a forecast using estimate to complete (ETC), which uses CPI to project how much money is likely to be spent for the rest of the project. The first step is to plug the numbers into the formula  $EAC = BAC / CPI$ , which yields  $EAC = \$80,000 / .95 = \$84,210$ . That's how much money you're likely to spend on the project. Now you can figure out  $ETC = EAC - AC = \$84,210 - \$25,000 = \$59,210$ .

## Exam Questions

**11. Answer: B**

Decomposition is the main tool for creating the WBS. It just means breaking the work down into smaller and smaller pieces based on how your company does the work until it is small enough to categorize and organize hierarchically.

**12. Answer: C**

Quality management is all about making sure that the product you are building conforms to your customer's requirements. If you have done a good job of gathering and understanding those requirements, all of the measurements you take on your project should help you see if what you are building will make your clients satisfied in the end.

**13. Answer: D**

The Communications Management Plan defines all of the processes that will be used for communication on the project.

**14. Answer: D**

The work authorization system is a part of your company's Enterprise Environmental Factors, and it's generally part of any change control system. It defines how work is assigned to people. If work needs to be approved by specific managers, the work authorization system will make sure that the right people are notified when a staff member's work assignments change.

**15. Answer: A**

There are a few really important ethical issues in this question. Your senior management was clear about the rules: go with the lowest bidder. And that's what you should do. But on top of that, you shouldn't choose your sellers based on perks that you'll get—that's called a bribe. And you should always refuse bribes.

**16. Answer: C**

The RACI matrix shows roles and responsibilities on your project. RACI stands for Responsible, Accountable, Consulted, Informed. Some people on your project will be responsible for activities, others might be accountable for them. The RACI matrix is a table that shows people and how they relate to the work that is being done.

## Answers

~~Exam Questions~~**17. Answer: B**

Some questions on the exam might ask you about how to operate in another country. In this case, the question is about whether or not something is a bribe. Clearly, if it's a bribe, you can't pay it. But is it? If a payment to a government official (or anyone else) is customary, then it's not a bribe. You should go ahead and pay the police—as long as it's acceptable and legal in that country.

*(Sometimes a bribe isn't money. Sometimes it's not 100% clear if something even is a bribe. But if you see an exam question where you're getting any reward for doing your normal job, make sure you treat that reward as a bribe – and refuse it!)*

**18. Answer: D**

Confronting means figuring out the cause of the problem and fixing it. That's the best way to be sure that the right decision is made.

**19. Answer: D**

The most important part of the Perform Quality Control process is that your team has to inspect each deliverable in order to verify that it meets its requirements. So what do you need to do that? Well, obviously you need the deliverables! And Quality Checklists are really useful too, because they help you inspect each deliverable. You need Work Performance Measurements, because that tells you how well the team is doing the job. But Validated Changes aren't an input—they're the output!

*(If you're wondering why the defect repairs are recommended rather than approved, it's because those defect repairs still need to go through change control! After all, there are some defects that are just not worth repairing, but only the stakeholders on the change control board can determine which ones are worth it and which ones aren't.)*

**20. Answer: D**

You can't do anything about the problem until you understand it. You should meet with the client to get a better understanding of what went wrong and why the product is not meeting their needs.

**21. Answer: C**

Your risk register is one of the most important project management tools that you have—that's why you review it and go over your risks at every meeting. Any time you come across a new risk, the first thing you should do is document it in the risk register. It's really easy to lose track of risks, especially when you're running a big project. By adding every risk to the register, you make sure that you don't forget about any of them. So once you've identified the risk, what's the next step? You analyze the impact and probability of the risk! That's what the Qualitative Risk Analysis process is for. You shouldn't take any other action until you've analyzed the risk. The reason is that it might turn out that the risk is very unlikely, and there might be another risk with a higher probability and larger impact that deserves your attention.

## Exam Questions

### 22. Answer: D

Tom is using a Template. As your company completes projects, the documents created along the way are stored in an Organizational Process Asset library. The WBS's from those past projects can be a great way to be sure that you are thinking of all of the work that you will need to do from the very beginning. Your project will never match the old WBS exactly, but there could be work packages listed there that you might not have thought of on your own but really are necessary in your project.

← While a template is definitely one of your organization's process assets, it's NOT a tool or technique of the Create WBS process. It's an input!

### 23. Answer: A

The project charter does several important things: it lays out the project requirements, describes an initial summary milestone schedule, documents the business case, and identifies initial risks, assumptions, and constraints. But the most important thing that a project charter does is that it identifies the project manager, and assigns him or her the authority necessary to get the job done.

### 24. Answer: B

You need to figure out the root cause of the problem if you are going to find a lasting solution to it. The best choice is to meet with the manager and understand why he offered the team members to you and what you can do to work together to find the right people for your team. It's possible that he has some information about those staff members that make them a good fit after all.

### 25. Answer: C

The point of total assumption is the point at which the seller assumes the costs. In a firm fixed price contract, this is the point where the costs have gotten so large that the seller basically runs out of money from the contract and has to start paying the costs.

### 26. Answer: C

All project reports must be communicated as formal written documents. Not only that, but anything that has to do with a contract DEFINITELY needs to be formal written.

## Answers

~~Exam Questions~~**27. Answer: A**

As a certified project management professional, it's your duty to respect copyrights. Purchased software is copyrighted, and you cannot use it without a license. Ever. If you don't have the budget to buy it, you can't use it.

When a question says that you don't have enough money in the budget to do something that will keep your project from being late, then your project will be late. That's why time and cost are two of the triple constraints.

**28. Answer: B**

If you want to evaluate how the project is doing with respect to the schedule and budget, you need to calculate CPI and SPI. The first step is to write down the information you have so far: BAC = \$450,000, planned % complete = 45%, actual % complete = 40%, and AC = \$165,000. Now you can calculate PV = BAC x planned % complete = \$450,000 x 45% = \$202,500. And you can calculate EV = BAC x actual % complete = \$450,000 x 40% = \$180,000. Now you have the information you need to calculate CPI and SPI.  $CPI = EV / AC = \$180,000 / \$165,000 = 1.09$ , which is above 1.0—so your project is within its budget. And you can calculate  $SPI = EV / PV = \$180,000 / \$202,500 = .89$ , which is below 1.0 - so your project is behind schedule.

**29. Answer: D**

Sometimes Verify Scope happens before Control Scope, and sometimes it happens afterwards—and sometimes it happens both before AND afterwards. That actually makes a lot of sense when you look at what those two processes do, and how they interact with each other. You always perform some Verify Scope activities at the end of your project, because you need to verify that the last deliverable produced includes all of the work laid out for it in the Scope Statement. Most projects will almost certainly have gone through Control Scope before then. So it might seem like Control Scope always happens before Verify Scope. But you don't just perform Verify Scope at the end—you actually do it after every deliverable is created, to make sure that all the work for that deliverable was done. Not only that, but sometimes Verify Scope fails because your team didn't do all of the work that was needed—that's why Requested Changes are an output of Verify Scope. And if those changes include scope changes, then your project will end up going through Control Scope again—possibly for the first time in the project, if this is the first scope change you've had to make. So Control Scope can happen before Verify Scope, but it can also happen afterward as well. That's why there's no prescribed order for those two processes: they can happen in any order.

**30. Answer: A**

Answer D is wrong because you can't just terminate a contract, since it's legally binding. But if a contract does eventually get terminated early during claims administration, you do have to follow any termination procedures in the contract.

When there's a dispute between a buyer and a seller, that's called a claim. Most contracts have some language that explains exactly how claims should be resolved—and since it's in the contract, it's legally binding, and both the buyer and seller need to follow it. Usually it's not an option to renegotiate a contract, especially at the end of the project after the work is complete, and lawsuits should only be filed if there are absolutely, positively no other options.

## Answers

~~Exam Questions~~**31. Answer: C**

When you're performing the **Close Procurements** process, you're closing out work done by a seller for a contract. To do that, you do a few things: you verify that all of the work and deliverables are acceptable, you finalize any open claims, and in case of early termination, you follow the termination clause in the contract. On the other hand, when you're performing the **Close Project or Phase** process, you're finalizing all of the various activities that you do across all of the process groups, and you're also verifying that the work and deliverables are complete.

Understanding the difference between these two things can really help you on the exam!

**32. Answer: B**

Of all of the contract types listed in the question, the Time & Materials (T&M) contract is the riskiest kind of contract for the buyer, because if the cost of the materials gets really high then they're passed along to the buyer—and the seller doesn't have any incentive to keep them down! (It's true that Cost Plus Award Fee (CPAF) could involve paying an additional fee to the seller, but that fee is based entirely on the buyer's subjective evaluation of the seller's performance, which lowers the risk.)

Unplanned work done by the team is always gold plating, even if it makes the client happy. But if the client never asked for it, it's not scope creep because the project's planned scope never changed.

**33. Answer: A**

Gold plating is when you or your team add more work to the project that was not requested by the sponsor or client. It is always a bad idea to gold plate a project because the impact is sometimes not immediately known. Sometimes, a feature that might seem really useful to your team is actually a detriment to the client. Gold-plated features can also introduce bugs that slow down later development.

**34. Answer: C**

This is an example of accepting a risk. The team can't do anything about the weather, so the project manager has accepted the fact that they could end up being delayed by it.

**35. Answer: B**

A watchlist is where you keep risks that don't have a high enough probability or impact to make it into the risk register but still need to be monitored. By recording the risk in a watchlist, you will have a reminder to check to be sure that circumstances haven't changed as your project goes on. That should give you enough time to come up with a risk response strategy if circumstances change as time goes on.

Answers

## Exam Questions

**36. Answer: C**

The Project Management Plan is not a bar chart (or a Gantt chart). It's the collection of all of the planning documents you create through all of the knowledge areas within the five process groups. It describes how your project will handle all of the activities associated with your project work.

**37. Answer: A**

Verify Scope is the Monitoring & Controlling process for the Scope Management knowledge area. It doesn't have anything to do with planning out the scope of the project—you do it as you complete each project phase to make sure that your team has completed all of the project work.

**38. Answer: C**

Cost Aggregation is used to build your budget, but it is not a tool for cost estimation. Bottom-up, Parametric, and Analogous estimation techniques are used for both cost and time estimates.

**39. Answer: A**

A control chart is a really valuable tool for visualizing how a process is doing over time. By taking one measurement after another and plotting them on a line chart, you can get a lot of great information about the process. Every control chart has three important lines on it: the mean (or the average of all data points), an upper control limit and a lower control limit. There's an important rule called the Rule of Seven that helps you interpret control charts. That rule tells you that if you find seven consecutive measurements that are on the same side of the mean, there's something wrong. That's because it's extremely unlikely for seven measurements like that to occur—it's much more likely that there's a problem with your process. If you can figure out an improvement to fix that, you'll have a lot fewer defects to repair later!

**40. Answer: B**

The PMP Code of Professional Conduct states that you must follow every law, no matter how trivial, and no matter how serious the consequences are. Any time that you see a question that asks about breaking a law, your answer should always be the choice that doesn't break it—no matter how minor the infraction, and how serious the consequences.

## Exam Questions

**41. Answer: C**

The staffing management plan tells you everything that you need to know about when resources will be released from a project. Since the team you need for your project is currently on another project, that project's staffing management plan will tell you when they will be released from that project and available for yours.

**42. Answer: C**

If your project is broken up into phases, you should have a kickoff meeting at the start of each phase. You use that meeting to talk about lessons learned from past projects and establish the way people will communicate as the project work goes on.

**43. Answer: B**

Joe is doing root-cause analysis on process problems: that's Perform Quality Assurance. Remember, Perform Quality Control is when you are trying to find problems in your work products through inspection. Perform Quality Assurance is when you are looking at the way your process affects the quality of the work you are doing.

**44. Answer: B**

Once you've figured out the impact of the change to your schedule, budget, and scope, the next step is to take the change request to the Change Control Board. If they approve your recommendation, then the request will be approved and you can update your baseline and implement the change.

**45. Answer: B**

When you work with a union then the union contract can have an impact on your project. That means you need to consider the union itself a stakeholder, and when you do your planning you need to make sure any union rules and agreements are considered as constraints.

**46. Answer: C**

A change control board (or CCB) is a group of people that approves or rejects changes. It usually includes the sponsor, which makes sense because the sponsor is the one funding the project. It's not the project manager's job to tell the CCB whether or not to approve a change—they use their



## Answers

~~Exam Questions~~

expert judgment to figure out whether or not the change is valuable. It IS the project manager's job to make sure the impact of the change on the triple constraint (time, scope, and cost) is evaluated, but that impact analysis should happen BEFORE the change request is sent to the CCB.

**47. Answer: A**

Co-location means that you have all of your team located in the same room. When you do this, you can increase communication and help them build a sense of community. Sometimes the room the co-located team meets in is called a war room.

**48. Answer: B**

Any time there's a conflict of interest, it's your duty to disclose it to your company. After that, you should always proceed based on your company's policies. If there are no specific policies about that, then make sure that the conflict does not affect your decisions.

*When bidders are competing for a contract, you must make sure they all have the same information so that no one bidder is given an unfair advantage. That's why a bidder conference is a great tool – it gives all bidders access to the same information.*

**49. Answer: B**

Stakeholder analysis means talking to the stakeholders and figuring out their needs, and it's something that you do when you're defining the project scope. If there's an important client who has needs that your project is supposed to fulfill, that client is always a stakeholder. And if your project is not meeting that client's needs, then you didn't do a good enough job when you were performing stakeholder analysis!

**50. Answer: B**

The project management methodology describes the process (or lifecycle) that you use to manage your project. It really doesn't have anything to do with closing a project or phase. The other three answers, however, do! You need the Project Management Plan to give you the procedure for closing the project phase. You need the Accepted Deliverables to verify that they're complete. And you need your Organizational Process Assets for lessons learned and closure guidelines.

**51. Answer: D**

The scope baseline is made up of the Project Scope Statement and the WBS and the WBS Dictionary. The WBS Dictionary is considered a supporting document to the WBS, so if the WBS were to change, then the dictionary would, too.

## Exam Questions

**52. Answer: B**

A rough order of magnitude (ROM) estimate is an estimate that is very rough. According to the PMBOK® Guide, you should expect a ROM estimate to be anywhere from half (-50%) to one and a half times (+50%) the actual result. That means that if your ROM estimate for a project is six months, then you should expect the actual project to be anywhere from three months to nine months.

**53. Answer: A**

It's pretty easy to remember which processes are in the Initiating group, because there are only two of them! But more importantly, it's useful to know what you need to do when you initiate a project. First the project charter needs to be created (by performing the Develop Project Charter process), which authorizes the project manager to do the work. And then you need to identify your stakeholders (by performing the Identify Stakeholders process), which helps you understand who needs your project done and what interest they have in it..

**54. Answer: B**

Mary is working for a projectized organization. In those companies, the project manager has authority over the team as well as the project.

**55. Answer: C**

It's very hard to figure out whether or not your project is successful unless you can measure that success. That's why you need to come up with goals that have numbers attached to them—which is what quantifiable means. Of all four answers, only answer C has a goal that you can actually measure.

**56. Answer: A**

Customer satisfaction is an important part of modern quality management. Remember, customer satisfaction is about making sure that the people who are paying for the end product are happy with what they get. But the way that you make sure that your customers are happy is by meeting their needs—and you do that by ensuring the product the team builds meets the customer's requirements. That's what quality management is all about, and it's an important reason that you do quality management.

## Exam Questions

**57. Answer: B**

Customers can be satisfied even when a project is not profitable—customer satisfaction isn't always about money. Rather, customer satisfaction is about making sure that the people who are paying for the end product are happy with what they get. When the team gathers requirements for the specification, they try to write down all of the things that the customers want in the product so that you know how to make them happy. Some requirements can be left unstated, too. Those are the ones that are implied by the customer's explicit needs. In the end, if you fulfill all of your requirements, your customers should be satisfied.

**58. Answer: C**

Since the project absolutely must be completed in seven months for it to be worth doing, the deadline is a constraint. It must be met for the project to be considered successful.

**59. Answer: C**

Herzberg's Motivation-Hygiene Theory states that people need things like good working conditions, a satisfying personal life, and good relations with the boss and coworkers—these are called “hygiene factors.” Until people have them, they generally don't care about “motivation factors” like achievement, recognition, personal growth, or career advancement.

**60. Answer: C**

The Resource Histogram is a bar chart that shows your staffing needs over time. If you need more testers in the end of the project than you do while you're building a product, for example, you can forecast how many you will need and what their skill level needs to be from the beginning. That way, you'll be sure that they're available when you need them.

**61. Answer: B**

There are four things you can do with any opportunity. You can exploit it by making sure you do everything you can to take advantage of it. You can share it by working with another company in a way that gives you a win-win situation. You can enhance it by figuring out a way to increase its value. Or, if there's no way to take advantage of it, you can just accept it and move on. In this case, taking additional actions that will increase the potential reward is enhancing the opportunity.

## Exam Questions

**62. Answer: B**

The Plan-Do-Check-Act cycle is a way of making small improvements and testing their impact before you make a change to the process as a whole. It comes from W. Edwards Deming's work in process improvement, which popularized the cycle that was originally invented by Walter Shewhart in the 1930s.

**63. Answer: A**

Lessons learned are part of the organizational process assets, not enterprise environmental factors. Your company's enterprise environmental factors tell you about how your company typically does business—like how your company's departments are structured, and the regulatory and industry environment your company operates in. An important enterprise environmental factor that you'll run across when you're planning a project is the work authorization system. That's your company's system to determine who is supposed to be working on what, and when the work should get done.

*Just remember, lessons learned are your most important organizational process assets.*

**64. Answer: C**

The cost variance (CV) is the difference between the amount of money you planned on spending and the total that you've spent so far. This should make sense—if your CV is negative, it means that you've blown your budget.

**65. Answer: B**

Tom is using expert power. Since he's been through this problem before, his team is more likely to accept his authority. Expert power is the best form of power to use when making project decisions. The team will respect decisions that are based on experience and expertise.

**66. Answer: D**

It's important to know that resources, schedules, and priorities cause 50% of project problems and conflicts. Sure, it's important for the PMP exam. But even more importantly, if you're trying to confront a problem by looking for the root cause of a conflict, the odds are that you'll find that cause in one of those three areas!

Answers

**Exam Questions****67. Answer: B**

Quality Audits are when your company reviews your project to see if you are following its processes. The point is to figure out if there are ways to help you be more effective by finding the stuff you are doing on your project that is inefficient or that causes defects. When you find those problem areas, you recommend corrective actions to fix them.

Any time you create recommended corrective actions, they go through change control.

**68. Answer: A**

Any time you do coaching, mentoring, training, or anything else to help others learn about project management, you're contributing to the project management body of knowledge.

**69. Answer: B**

Even if a project is shut down before the work is completed, you still need to document the lessons learned and add them to the organizational process assets. In fact, if a project is terminated early, that's probably the best time to do that! When a project goes seriously wrong, then there are always important lessons that you can learn—even if it wasn't your fault!

**70. Answer: A**

Seven values on one side of the mean in a control chart indicate a problem with the process that is being measured.

**71. Answer: B**

The Delphi technique is a way to get opinions and ideas from experts. This is a technique that uses a facilitator who uses questionnaires to ask experts about important project risks. They take those answers and circulate them—but each expert is kept anonymous so they can give honest feedback.

**72. Answer: D**

Take a look at the answers to this question. What do you see? A list of processes—"Create WBS", "Develop Project Management Plan", "Develop Project Charter," and "Identify Stakeholders". Your job is to figure out which of these processes comes next. So what clues do you have to tell you where you are in the project lifecycle? Well, you've just been authorized to manage a new project. Since the project charter is what authorizes a project manager to work on a project, it means that the Develop Project Charter process has just been performed. So which of the processes in the list comes next? The other Initiating process: Identify Stakeholders.

~~Exam Questions~~**73. Answer: C**

The expected monetary value (or EMV) of the problems integrating the component is the probability (20%) times the cost (\$3,000), but don't forget that since it's a risk, that number should be negative. So its EMV is  $20\% \times \$3,000 = -\$600$ . The savings from not having to build the component from scratch is an opportunity. It has an EMV of  $40\% \times \$10,000 = \$4,000$ . Add them up and you get  $-\$600 + \$4,000 = \$3,400$ .

**74. Answer: C**

The best thing that you can do with a risk is avoid it—if you can prevent it from happening, it definitely won't hurt your project. The easiest way to avoid a risk is to cut it out of your project entirely; in this case, getting rid of the subcontractor avoids the risk.

Sometimes avoiding one risk can lead to another. It's possible that there was a reason that you went with the subcontractor in the first place, and now you've exposed the project to a different risk! That's why Risk Management is so important.

**75. Answer: D**

The WBS Dictionary always corresponds to an entry in the WBS by name and Work Package ID. So that's the easiest way to cross reference the two. The Statement of Work describes the work that will be done. The Responsible Organization is the team or department who will do it. Schedule Milestones are any set dates that will affect the work. The Quality Requirements describe how we will know if the work has been done properly. The Resource and Cost Estimates are just a list of how many people will be needed to do the work and how much it will cost. Answer A couldn't be right because net present value doesn't have anything to do with individual work packages. The other options mention Earned Value and Monte Carlo Analysis, which have nothing to do with scope management as well.

**76. Answer: C**

The best way to resolve any problem is to confront the issue—because “confronting” means figuring out the source of the problem and then resolving the root cause of the conflict. Any time you have an opportunity to confront the problem, you should do it. Remember, one of the most important things that a project manager does is make sure that team conflicts get resolved. Sometimes questions are worded so that the word “confronting” sounds negative. Even when it is, it's still the best approach to resolving conflicts!

**77. Answer: A**

Tom is a Theory X manager. He believes that employees need to be watched all of the time and that all of his team members are selfish and unmotivated.

Answers

## Exam Questions

**78. Answer: C**

The WBS Dictionary is the companion document to the WBS. It gives all the details that you know about each work package in the WBS, including estimates and billing information.

**79. Answer: A**

This is a calculation question that's asking you to use SPI and CPI to evaluate your project. Luckily, it's easy to do that! First calculate  $SPI = EV / PV = \$15,000 / \$12,000 = 1.25$ —so your project is ahead of schedule. Then calculate  $CPI = EV / AC = \$15,000 / \$11,000 = 1.36$ —so your project is within its budget.

**80. Answer: C**

Whenever you use any of the seven basic tools of quality to examine the results of an inspection of your product, you are in Perform Quality Control. If you were examining the process your company uses to build multiple projects, you would be in Perform Quality Assurance.

**81. Answer: A**

Withdrawal happens when someone gives up and walks away from the problem, usually because they're frustrated or disgusted. If you see a team member doing this, it's a warning sign that something's wrong.

**82. Answer: B**

The reason we work to do quality planning up front is that it is most expensive to deal with problems if you find them late in the project. The best case is when you never inject the defects in the first place; then it doesn't cost anything to deal with them. Prevention is always better than inspection.

**83. Answer: D**

You must always follow your company's policy—it's your ethical duty as a project manager. You should find some other way to reward her that is not against your company's rules.

## Answers

~~Exam Questions~~**84. Answer: B**

Perform Qualitative Risk Analysis is all about figuring out prioritizing each risk, and figuring out its probability and impact. It's an important part of risk planning. But it's not about coming up with specific numbers! That's what Perform Quantitative Risk Analysis is for—and EMV analysis is part of Quantitative (not Qualitative) analysis, because it's where you assign numeric values to risks.

Remember, quantitative means numbers and qualitative means judgments!

**85. Answer: D**

The PMP Code of Professional Conduct tells us that an important part of any project manager's career is enhancing personal professional competence. This means increasing your knowledge and applying it so that you can improve your ability to manage projects.

**86. Answer: B**

A Risk Urgency Assessment is a tool of Perform Qualitative Risk Analysis. Identify Risks is all about finding risks. Perform Qualitative Risk Analysis is about ranking them based on what your team thinks their impact and probability will be for your project.

Brainstorming and Delphi technique are both part of Information-Gathering Techniques, which is one of the tools and techniques of Identify Risks.

**87. Answer: C**

To calculate the expected monetary value (EMV) of a set of risks and opportunities, multiply each probability by its total cost and add them together. In this question, the cost of the risk is  $-\$15,250 + -\$20,000 = -\$35,250$ , so its EMV is  $40\% \times -\$35,250 = -\$14,100$ . The value of the opportunity is  $\$4,500$  and its probability is 65%, so its EMV is  $65\% \times \$4,500 = \$2,925$ . So the total EMV for the two is  $-\$14,100 + \$2,925 = -\$11,175$ .

Don't forget that the cost of a risk is negative, and the cost of an opportunity is positive.

**88. Answer: A**

Before you can close your project, there are a few things you need to do. Remember the acceptance criteria in the scope statement? Well, those criteria need to be met. And you need to get formal written acceptance from the customer. And every work item in the WBS needs to be completed.

Until the customer accepts the final product, your project isn't done!

**89. Answer: D**

Once you've closed out a procurement, it's important to conduct a procurement audit. This is



## Answers

~~Exam Questions~~

where you go over everything that happened on the project to figure out the lessons learned, and look for anything that went right or wrong. However, consideration—or payment—is not part of an audit (unless there was a problem processing or paying it).

That's why the payment system is one of the Administer Contracts tools and techniques, and not part of Close Procurements - you can't close out the contract until it's been paid.

**90. Answer: B**

The Staffing Management plan includes a "Reward and Recognition" section that describes how you'll reward your team for good performance. It also contains training requirements and release criteria.

There's no such thing as a "Reward and Recognition Plan" in the PMBOK® Guide.

**91. Answer: C**

It's pretty obvious just from a quick glance at the numbers that this project is in trouble. The total budget for completion is 900 panels x \$75 per panel = \$67,500, and your actual costs are already \$45,000. But if you look at all the answers, every one of them could potentially be correct: you know that you're pretty far below budget, so the CPI will be below 1 and the CV will be negative. And since you should have completed 400 panels, you're behind schedule, so you know your SPI will also be below 1. So which of the answers is right? There's only one way to find out: do the calculations. Actual % complete is  $350 \div 900 = 38.9\%$  so  $PV = \$67,500 \times .389 = \$26,258$ . Planned % complete is  $400 \div 900 = 44.4\%$ , so  $PV = \$67,500 \times .444 = \$29,970$ .  $CPI = \$26,258 \div \$45,000 = .584$ , and  $CV = \$26,258 - \$45,000 = -\$18,742$ , so both of those numbers don't match the answers for A and B. And for answer D,  $SPI = \$26,258 \div \$29,970 = .876$ , which doesn't match, either. But for answer C,  $TCPI = (\$67,500 - \$26,258) \div (\$67,500 - \$45,000) = 1.833$ , which does match the answer. Answer C is correct.

**92. Answer: C**

By buying the extra chemical stock, you are mitigating the risk.

**93. Answer: D**

A resource histogram is just a way to visualize the number of people in each role that you will need on your project as time goes on. Once you have figured out your schedule and the order of activities, you figure out how many people it's going to take to do the work and plot that out over time. Then you have a good idea of what the staffing needs of your project will be.

Stakeholder analysis is important, but it's not part of change control.

**94. Answer: D**

Change control is how you deal with changes to your project management plan. And a change control system is the set of procedures that lets you make those changes in an organized way. A typical change control system includes a change control board, utilizes a project management information system, and ends with either approval or rejection.

## ~~Exam Questions~~

**95. Answer: B**

Anytime you have any communication having to do with the contract, it's always formal written communication.

**96. Answer: A**

One of the most important elements of the staffing management plan is the timetable, which tells you who will work on what, and when they will be released from the project. One of the most common ways of showing the timetable is the resource histogram (or staffing histogram). That timetable will let you know exactly when you plan to release your project resources.

**97. Answer: D**

Noise is something that interferes with communication. It's not a communication type.

**98. Answer: B**

Lessons learned from past projects are always part of a company's organizational process assets, and are usually stored in a process asset library. The other three answers are important project tools, but they're not where you find lessons learned.

*All the answers to that question sounded good, right? Just remember, lessons learned are your most important organizational process assets!*

**99. Answer: C**

Once your project team is done with the work, it's time to check the deliverables against the scope statement, WBS, and scope management plan. If your deliverables have everything in those documents, then they should be acceptable to stakeholders. When all of the deliverables in the scope are done to their satisfaction, then you're done with the project! What comes next? Formal acceptance, which means you have written confirmation from the stakeholders that the deliverables match the requirements and the project management plan. Since this communication is a project document, it's formal written communication.

**100. Answer: C**

The procedure for managing changes to a contract is found in the Contract Management Plan. The other three answers are all things you typically find in a project charter.

## Answers

~~Exam Questions~~**101. Answer: C**

The most important project constraints that you'll see on the exam are scope, quality, schedule, budget, resources, and risk. Any change to one of those constraints affects the others. It's important to balance all of these constraints throughout your project.

**102. Answer: D**

Every risk should have a risk owner listed in the register. That person is responsible for keeping the response plan up to date and make sure the right actions are taken if the risk does occur.

**103. Answer: B**

Risk mitigation means taking some sort of action that will cause a risk, if it materializes, to do as little damage to your project as possible. Having team members spend time doing work to prepare for the risk is a good example of risk mitigation.

**104. Answer: A**

Sometimes you don't need to do any calculations when you run across a question like this. The question asked you which number to use for a forecast of how much money you expect to spend on the rest of the project. Well, isn't that the definition of ETC? Since you were given the value of ETC, you could just use that number!

**105. Answer: D**

Product scope means the features and functions of the product or service being built. Project scope means the work that's needed to build the product.

**106. Answer: A**

It's just easy to calculate the late finish (LF) of an activity in a network diagram. Look at the following activity, take its LS (late start), and subtract one. If there's more than one following activity, use the one with the lowest LS. So for activity F in the question, the following activities are G, with an LS of 17, and H, with an LS of 11. So the LF of F is  $11 - 1 = 10$ .

## ~~Exam Questions~~

**107. Answer: A**

Punishment power is exactly what it sounds like—you correct a team member for poor behavior. Always remember to do this one-on-one, in person, and in private! Punishing someone in front of peers or superiors is extremely embarrassing, and will be really counterproductive.

*Punishment isn't usually the best way to handle a situation, but if it's the only option, make sure you do it right.*

**108. Answer: B**

Since the CFO is affected by your project, that means he's a stakeholder. The best thing you can do in this situation is get the new stakeholder's opinion incorporated in the project up front. It's important that all of the project stakeholders understand the needs and objectives that the project is meant to address. The worst case is to have the stakeholder's opinion incorporated at the end of the project—that could mean a lot of re-work or even an entirely unacceptable product.

**109. Answer: D**

An important part of identifying stakeholders is reviewing lessons learned from prior projects (because they may help you identify stakeholder issues early), performing stakeholder analysis (which often involves a power/interest grid), and reviewing procurement documents (because a contract often brings extra stakeholders with it). However, you don't create the change control system in the Initiating phase—that's something that you do as part of your project planning activities.

**110. Answer: C**

The Project Manager is mitigating the risk by backing up the data so that it doesn't get lost. He is transferring it to the insurance company by insuring the company for the cost of re-keying the information.

**111. Answer: B**

This project is not in good shape. The client has needs that aren't being met, but there may not be enough time or money to meet them. What's the project manager going to do? Well, the first thing that you should do any time you have a problem is try to figure out what's causing it. All of the other answers involved taking some sort of action, and you should never take action until you've figured out the root cause of the problem.

## Exam Questions

**112. Answer: C**

Residual risks are risks that remain even after you have planned for and implemented all of your risk response strategies. They don't need any further analysis because you have already planned the most complete response strategy you know in dealing with the risk that came before them.

**113. Answer: D**

The client is trying to command Rekha to do what he says even though she has good reasons for not doing it. He isn't working to solve the problem, he's just forcing the resolution to go his way.

**114. Answer: B**

Constrained Optimization doesn't have anything to do with Define Scope—it's a kind of benefit selection method. The other answers are all tools of the Define Scope process.

**115. Answer: A**

The records management system is one of the tools that you use in the Close Procurements process. It's what you use to store your contracts and any related documents, so that future project managers can refer to them in future projects.

**116. Answer: B**

Time and Materials (T&M) contracts are used in labor contracts. In a T&M contract, the seller pays a rate for each of the people working on the team plus their material costs. The "Time" part means that the buyer pays a fixed rate for labor—usually a certain number of dollars per hour. And the "Materials" part means that the buyer also pays for materials, equipment, office space, administrative overhead costs, and anything else that has to be paid for.

**117. Answer: D**

Any activity that helps you find, prevent or fix defects in your product is included in the cost of quality. The activities you do to build the product don't count towards that number.

~~Exam Questions~~**118. Answer: B**

A stakeholder is anyone who is affected by the cost, time, or scope of your project. And that includes unions—if you have team members who are in a union, then you always need to consider that union as a stakeholder and make sure their needs are met. However, you don't need to consider the needs of your company's competitors.

**119. Answer: D**

The Project Scope Statement builds defines the scope of work for the project. It's where everyone comes to a common understanding about the work that needs to be accomplished on the project.

**120. Answer: C**

$\$230,000 \times 0.70 = \$138,000$  savings, and  $\$150,000 \times 0.40 = -\$60,000$  expenses. Add them together and you get  $\$78,000$ .

When you calculate EMV, anything that saves your project money is counted as positive, and anything that costs it money is negative. Multiply each by the probability and add them together.

**121. Answer: B**

The project manager is asking the other companies to help her make this opportunity happen and they can all share in the benefits of it.

**122. Answer: C**

If you discover that someone claims to have the PMP credential but is not actually certified, you must contact PMI immediately so that they can take action.

**123. Answer: A**

The most effective type of power for a project manager is Expert power. That's when your team respects you because they know that you know what you are talking about.

**124. Answer: B**

Since the Smith County project officer is the sponsor, he's the person who is best suited to signing the charter. A project charter is typically approved and signed by the sponsor. Some

Answers

~~Exam Questions~~

projects are approved by key stakeholders, but they are never approved by project managers (since the project manager is only granted authority once the project is signed) or team members.

**125. Answer: B**

Administer Procurements is the Monitoring & Controlling process for Procurement Management. It's when you run into a change that has to be made to a specific contract. You use work performance information to determine how the contract is going, and the contract and procurement documents to see exactly what everyone's on the hook for. But you don't actually see the Procurement Management Plan as an input to administer procurements.

**126. Answer: A**

If you discover that someone claims to have the PMP credential but is not actually certified, you must contact PMI immediately so that they can take action.

**127. Answer: B**

You may get a question on the exam that asks what to do when you encounter a change. You always begin dealing with change by consulting the project management plan.

**128. Answer: B**

Sometimes you'll find that some risks have obviously low probability and impact, so you won't put them in your register. Instead, you can add them to a watchlist, which is just a list of risks that you don't want to forget about, but you don't need to track as closely. You'll check your watchlist from time to time to keep an eye on things.

**129. Answer: A**

Everything listed in each of the answers is a project document... except for the Scope Baseline. The baselines and subplans are all part of the Project Management Plan, so they don't fall under the heading of "project documents".



**Project Documents**



Take a minute and flip to page 350 of the PMBOK® Guide. It has a table that show you exactly what's considered part of the Project Management Plan, and what's a project document.

## Exam Questions

**130. Answer: C**

When you're looking at CPI and SPI numbers, remember: lower = loser. If your CPI is below 1.0, then your project is over its budget. If the SPI is below 1.0, then the project is behind schedule. In this case, the project is ahead of schedule, since its SPI is above 1.0. But it's over its budget, because it's got a CPI that's below 1.0.

**131. Answer: B**

The key to a good bonus system is that it must be achievable and motivate everyone in the team to work toward it. If you are only rewarding one team member or a few people in the group, the rest of the team will not be motivated. Also, making the goals too aggressive can actually de-motivate people.

**132. Answer: A**

The formula for lines of communication is  $n \times (n-1) / 2$ . So the answer to this one is  $(17 \times 16) / 2 = 136$ .

**133. Answer: A**

There are two kinds of project selection methods. Benefit measurement models, or comparative methods, are used to compare the benefits and features of projects. Mathematical models use complex formulas to determine which project has the most value to the company. You should get familiar with some of the more common comparative approaches to project selection, like murder boards, benefit-to-cost ratios, and peer reviews.

**134. Answer: D**

If you find out that someone is cheating on the PMP exam by distributing questions that are on it, you must report that person to PMI immediately. If that person is a PMP-certified project manager, he or she will be stripped of his certification.

**135. Answer: B**

The project sponsor is the person (or people) that pays for the project. Sometimes this means the sponsor directly provides funding; other times, it means the sponsor is the person who signs



## Answers

~~Exam Questions~~

the organizational approval to assign resources. Either way, you can usually tell who the sponsor is by finding the person who can approve or deny the budget.

**136. Answer: C**

An important part of any project manager's career is enhancing personal professional competence. This means increasing your knowledge and applying it so that you can improve your ability to manage projects.

**137. Answer: A**

The "document repository" sounded good, but you won't find that term anywhere in the PMBOK® Guide. Watch out for made-up terms on the exam!

The configuration management system is there to be sure that everybody on the team has the most updated version of all of the project documents. Whenever a project document is changed, it is checked into the Configuration Management System so that everyone knows where to go to get the right one.

**138. Answer: C**

Project managers must have a "zero tolerance" policy on racist remarks, or any other cultural insensitivity. If there is an incident involving racism, sexism, or any other kind of discrimination, your top priority is to correct that. Every company has a policy that guides how you handle this kind of situation, so a question involving racism will usually involve the company's policy or HR department.

**139. Answer: B**

An important part of making sure that your project goes well is keeping an eye on the work, and that's what the Monitor & Control Project work process is for. It's where you constantly evaluate the work being done, and any time you see a problem you recommend changes, defect repairs, and preventive and corrective actions.

**140. Answer: D**

The bars in the Pareto chart show the number of defects in each category, with a line overlaid that shows the percentage of the total defects found.

Pareto charts plot out the frequency of defects and sort them in descending order. The right axis on the chart shows the cumulative percentage. This helps you figure out which root cause is responsible for the largest number of defects. The 80/20 rule states that 80% of defects are caused by 20% of the root causes you can identify. So if you do something about that small number of causes, you can have a big impact on your project.

## Exam Questions

**141. Answer: C**

You need to make sure that what you're delivering matches what you wrote down in the scope statement. That way, the team never delivers the wrong product to the customer. As you complete each deliverable, you work with the stakeholders and the sponsor to make sure that you did the right work.

**142. Answer: C**

Even though the numbers are large, this is a simple application of the channels of communication formula:  $\# \text{ lines} = n \times (n - 1) \div 2$ . There are a total of  $1,253 + 752 + 14 = 2,019$  people. So the number of channels is  $2019 \times 2018 \div 2 = 2,037,171$ . That's a pretty staggering number, but it's realistic for a large project—and it's why Communications Management is such an important part of a project manager's toolbox.

**143. Answer: B**

The halo effect is when you put someone in a position they can't handle, just because they're good at another job. Just because Joe is a great programmer, that doesn't mean he'll be a good project manager.

**144. Answer: D**

The Staffing Management Plan always includes a resource histogram, so that should be your first clue about which one of these answers is right. The resource histogram shows what kind of resource is needed through each week of your project and how many staff members you need. When planning out your staffing needs, you need take into account the training it will take to get them up to speed as well as the kinds of incentives you are going to offer for a job well done. Release criteria are important too, but they might not be familiar to you if you don't work in a consulting organization. You need to think about what each staff member needs to get done before they are released to work on other projects.

**145. Answer: C**

Plurality is an example of a group decision-making technique in which a decision can be made by the largest block of people in the group, even if they don't have a 50% majority.

## Answers

~~Exam Questions~~

146. Answer: C

Smoothing is minimizing the problem, and it can help cool people off while you figure out how to solve it. But it's only a temporary fix, and does not really address the root cause of the conflict.

147. Answer: B

The Project Charter is often created without the project manager's involvement. Sometimes it is handed to the project manager by the sponsor or high-level manager.

148. Answer: C

Run charts tell you about trends in your project by showing you what your data looks like as a line chart. If the line in the chart were the number of defects found in your product through each quality activity, that would tell you that things were getting worse as your project progressed. In a run chart, you are looking for trends in the data over time.

Run charts help you answer questions about trends in your defect rate.: Does it seem to be going up or down as the project progresses? Is there a steady climb or a spike when a particular activity occurs?

149. Answer: B

Monte Carlo Analysis is a way of seeing what could happen to your project if probability and impact values changed randomly.

150. Answer: A

Saying that the work must be "better" is subjective. Requirements gathered in stakeholder analysis need to be quantifiable. That way, the team has a goal they can shoot for and you can always tell how close or far from it you are.

## Answers

~~Exam Questions~~**151. Answer: B**

Maslow's Hierarchy of Needs says that people have needs, and until the lower ones (like acceptance on the team, job safety or job security) are satisfied, they won't even begin to think about the higher ones (fulfilling their potential and making a contribution).

*Cost of quality doesn't include the time the project manager spends putting together the project management plan - except for the time spent on the quality portions!*

**152. Answer: C**

Cost of quality is what you get when you add up the cost of all of the prevention and inspection activities you are going to do on your project. It doesn't just include the testing. It includes any time spent writing standards, reviewing documents, meeting to analyze the root causes of defects, reworking to fix the defects once they're found by the team—absolutely everything you do to ensure quality on the project.

**153. Answer: D**

A fixed price (FP) contract means that the buyer pays one amount regardless of how much it costs the seller to do the work. A fixed price contract only makes sense in cases where the scope is very well known. If there are any changes to the amount of work to be done, the seller doesn't get paid any more to do it.

*So if the costs get really high, then the buyer has to swallow them.*

**154. Answer: C**

A lot of people think compromise is a great way to handle conflicts. But any time there's a compromise, it means that everyone needs to give up something. That's why compromise is often called a lose-lose solution. It's always better to confront the problem and fix the root cause of the conflict. You should only force people to compromise if that's the only option.

*Insurance is just a contract that you use to pay a company to take on some of your risk.*

**155. Answer: A**

One effective way to deal with a risk is to pay someone else to accept it for you. This is called transference. The most common way to do this is to buy insurance.

**156. Answer: B**

When you're working with procurements, Independent Estimates is one of the tools and techniques of the Conduct Procurements process. It certainly sounds a lot like something you'd

## Answers

~~Exam Questions~~

do while planning out your procurements. Don't forget that the Conduct Procurements process involves finding sellers as well as carrying out the work to complete the contract. That's why you use things like Bidder Conferences and Qualified Seller Lists in Conduct Procurements.

**157. Answer: C**

The scope baseline is not a particularly useful thing once a project's done. A baseline is what you use to measure any changes to the project—whenever there's a change, you always want to compare it against the baseline. But once the project is done, the baseline isn't necessary any more.

**158. Answer: C**

Forecasting is a cost monitoring tool that helps you predict how much more money you'll need to spend on the project. So which of the cost metrics would you use to do that? There are two useful numbers that you can use for forecasting. One of them is called Estimate to Complete (ETC), which tells you how much more money you'll probably spend on your project. And the other one, Variance at Completion (VAC), predicts what your variance will be when the project is done.

**159. Answer: A**

Did you think the answer was "Status reports"? You generally won't see that as a valid answer on the exam. The PMBOK® Guide is clear on this: a PM's job is to plan the work and control the project, not just gather and report status.

You create one of the most important outputs of your entire project when the team is doing the project work. Work Performance Information tells you the status of each deliverable in the project, what the team's accomplished, and all of the information you need to know in order to figure out how your project's going. But you're not the only one who needs this—your team members and stakeholders need to know what's going on, so they can adjust their work and correct problems early on.

**160. Answer: B**

Kaizen is a Japanese word that means "improvement"—and it's also a management technique that helps your company use problem-solving to constantly find new ways to improve. Kaizen focuses on making small improvements and measuring their impact. It's a philosophy that guides management, rather than a particular way of doing quality assurance.

Ishikawa diagrams – or fishbone diagrams – are an important tool that's used in Kaizen.

## Answers

~~Exam Questions~~**161. Answer: A**

The PMP Code of Professional Conduct requires cultural sensitivity to others. It's unacceptable to belittle anyone based on how they speak, the way they dress, or any other aspect of their cultural background. If you see a member of your team doing this, it's your responsibility to do what's necessary to correct the behavior and prevent it from happening in the future.

*Don't assume that every time you see a fishbone diagram the question is talking about Perform Quality Control.*

**162. Answer: A**

Diagramming Techniques (including Ishikawa diagrams and flowcharts) are a tool of the Identify Risks process. You use them to find the root cause of defects in Quality Management processes but they can also be useful in finding the risks that can lead to trouble in Risk Management.

**163. Answer: B**

The project's scope is changing every time the client is asked to verify the product—that's scope creep. The best way to avoid that is to be sure that the Project Scope Statement that is written in the planning stages of the project is understood and agreed to by everyone on the project. Scope changes should never come late in the project; that's when they cost the most and will jeopardize the team's ability to deliver.

**164. Answer: B**

Any time you hold a seminar, give a talk, write an article, or help others learn about project management, you're contributing to the project management body of knowledge.



*This is an important part of every PMP-certified project manager's career!*

**165. Answer: D**

If you discover that someone has broken the law, it is your duty to call the authorities and report that person. You need to do this, even if it seems like the offense is minor.

**166. Answer: C**

When you're asked to use benefit-to-cost (BCR) ratios to select a project, always choose the project with the highest BCR because that's the project that gives you the most benefit for the least cost. An easy way to do it is to divide: Project A has a BCR of 5:2, and  $5 / 2$  is 2.5. Do that with all four projects, and you find that project C has the highest BCR.

Answers

## Exam Questions

**167. Answer: D**

Legitimate power is the kind of power you have when you tell someone who reports to you to do something. Expert power is when your opinion carries weight because people know that you know what you're talking about. Reward power is when you promise a reward for doing as you ask. Referent power is when people do what you say because of your association with somebody else. Punishment power is when people do what you say because they are afraid of the consequences.

**168. Answer: C**

Every change request needs to be evaluated to determine whether or not it should be made. That's what we do in the Perform Integrated Change Control process—every change is analyzed to determine its impact. It's then documented as a change request and put into the change control system. That's where the stakeholders on the CCB determine if the change should be made.

**169. Answer: B**

By the time the Close Project or Phase process happens, you should have already gotten formal written acceptance for the deliverables. That's what the Verify Scope process is for, and you verify that formal acceptance in the Close Project or Phase process.

**170. Answer: C**

The WBS work packages can be displayed by project phase or by project deliverable. It depends on how your company needs to see the work organized. If you use the same phased lifecycle for all projects, it can be easier to show all of the work as it breaks down within each phase. If you have various teams depending on the deliverables your team will produce, it can make sense to break the work down by project deliverable.

**171. Answer: A**

The two main outputs of Direct and Manage Project Execution are Deliverables and Work Performance Information. Deliverables are the documents and other work products your project produces, and Work Performance Information is a name for all of the performance metrics and reports you can generate to track how your project is doing versus your plan.

## Answers

~~Exam Questions~~**172. Answer: A**

Lessons learned are some of your most important organizational process assets. At the end of every project, you sit down with the project team and write down everything you learned about the project. This includes both positive and negative things. That way, when you or another project manager in your company plans the next project, you can take advantage of the lessons you learned on this one.

← It's really important that you work with the team to write down the lessons you've learned, because they have a lot of insight into what went right and wrong on the project.

**173. Answer: D**

Once you've closed out a contract, it's important to conduct a procurement audit. This is where you go over everything that happened on the project to figure out the lessons learned, and look for anything that went right or wrong.

**174. Answer: A**

"Force majeure" is a kind of clause that you'll see in a contract. It says that if something like a war, riot, or natural disaster happens, you're excused from the terms of the contract.

**175. Answer: D**

Ground rules help you prevent problems between team members, and let you establish working conditions that everyone on the team can live with. You set up the ground rules for a project to help guide people in their interactions with each other. Make sure you discuss the ground rules with the team during the kick-off meeting!

**176. Answer: A**

One of the most important things that you do as a project manager is to constantly monitor the project for changes, and take the appropriate action whenever you make a change. But changes don't happen on any sort of schedule—if they did, it would make project management a whole lot easier! That means you need to continuously monitor your project to figure out whether or not its plans and scope need to change.

↙ You can think of Change Requests as what you get when someone finds a problem and needs to make a change. Once you've figured out whether or not to do that change (in Perform Integrated Change Control), you give the person an update on its status.

**177. Answer: B**

This question is basically asking you the difference between Change Requests and Change Request Status Updates. Change Request Status Updates are outputs from Perform Integrated Change Control, not Monitor & Control Project Work.



Answers

## Exam Questions

**178. Answer: C**

You can't know the answer to technical questions as well as your team. So, while it's important to understand both sides of the issue, your job is to make sure that problems are confronted and fairly evaluated.

**179. Answer: D**

Parametric estimation is a tool for creating estimates. It's not a deliverable.

**180. Answer: D**

The WBS Dictionary is an output of the Create WBS process. It is created along with the WBS and gives all of the details about each work package in the WBS.

**181. Answer: C**

*The team always needs to help you document the lessons learned for the project.*

This question isn't hard if you remember one really important fact: you need your team's help when you're writing the lessons learned. That's why you can't release the team until the lessons learned are documented and added to the organizational process assets. Also, the last thing you do on the project is close the contract. The reason for this is that you don't want to have to wait for payment before releasing the team, because most contracts have payment terms that allow for some period of time before full payment is required.

**182. Answer: D**

The kick-off meeting gets all of the stakeholders together to explain how communication will go. That way, everyone knows who to talk to if things go wrong or they run into any questions.

**183. Answer: A**

Not every change needs to be made. Before you make any change, you always need to evaluate its impact on the triple constraint—time, cost, and scope—and how those changes will affect the quality of the deliverables. Until you analyze that impact, there's no way to know whether or not it makes sense to make the change.

## Answers

~~Exam Questions~~**184. Answer: B**

The idea behind net present value (or NPV) is that you can compare potential projects by figuring out how much each one is worth to your company right now. A project's NPV is figured out by coming up with how much the project is worth, and then subtracting how much it will cost. If you're asked to choose between projects and given the NPV of each of them, choose the one with the biggest NPV. That means you're choosing the one with the most value!

**185. Answer: C**

It's easy to get change, defects, and corrective actions mixed up—they're all words that sound suspiciously similar! Just remember: a defect is any deliverable that does not meet its requirements. A defect is NOT always caused by a mistake—defects can come from lots of sources, and team members' errors only cause some defects. For example, plenty of defects are caused by equipment problems.

Don't forget that the project management plan itself is a deliverable! That means that it can have defects, too – a lot of companies have specific standards and requirements that every project plan must meet. And if a defect is found in the plan after the work has started, then you need to go through change control to repair it!

**186. Answer: D**

Forcing means putting your foot down and making a decision. One person wins, one person loses, and that's the end of that.

**187. Answer: B**

The Project Scope Statement is where you figure out exactly what your stakeholders need, and turn those needs into exactly what work the team will do to give them a great product. Any constraints or assumptions that need to be made to determine the work need to be written down in the scope statement as well.

**188. Answer: C**

You can figure out the actual cost that was spent on a project, even if all you're given are some of the project metrics. In this case, if you only have CPI and EV, you can figure out the AC by writing down the formula that has all three of them:  $CPI = EV / AC$ . Now flip the formula around:  $AC = EV / CPI = \$172,500 / .92 = \$187,500$ .

Answers

**Exam Questions****189. Answer: A**

Changes are found in Monitor and Control Project Work; they are approved in Perform Integrated Change Control, and implemented in Direct and Manage Project Execution. When you are monitoring and controlling the project work, you are always looking for changes that might need to be made to your plan and assessing their impact. Then you present those changes to the change control board for approval. If they approve, you implement them in the Direct and Manage Project Execution process—that's where all the work gets done.

**190. Answer: A**

A Work Breakdown Structure is the best way to visualize all of the work that will be done on your project. It divides all of the work up into work packages and shows how it fits into higher-level categories. By looking at the WBS, you can communicate to other people just how much work is involved in your project.

**191. Answer: B**

Over half of the conflicts on projects come from resources, priorities, and schedules. It can be tough to get resources assigned to projects, especially if they have skills that are in high demand. Sometimes multiple projects (and even roles within projects) are vying to get top priority. Finally, you probably don't need to think too hard to remember a conflict about schedules on a project you've worked on—many projects start with overly aggressive deadlines that cause conflicts from the very beginning.

**192. Answer: D**

When do you gather work performance information? You do it when you're reporting on the performance of the team—that's why it's a tool and technique of the Report Performance process. But that's not something you do during Monitor and Control Risks—Work Performance Information is an input to that process, which means it needs to be gathered BEFORE you start monitoring and controlling your risks.



Some questions on the PMP exam will describe tools or techniques rather than using their names. A question might say "bringing in an outside party to review your risk response strategies" instead of "Risk Audit." You're actually asked about concepts you've learned, not just about a bunch of things you've memorized.

## ~~Exam Questions~~

**193. Answer: B**

You should always use formal written communication when you are communicating with clients about changes in your project.

**194. Answer: C**

The project charter is created long before you start identifying work packages and activities. Those things are done as part of the project planning, which only happens after the project charter is completed.

**195. Answer: C**

Positive risks are opportunities that could happen on your project. The strategies for dealing with them are all about making sure that your project is in a position to take advantage of them or at least share in them with other projects if possible.

**196. Answer: D**

The RBS is part of the Risk Management Plan. It's structured very similarly to an WBS. The RBS helps you to see how risks fit into categories so you can organize your risk analysis and response planning.

**197. Answer: B**

The PMP Code of Professional Conduct says that you're not allowed to accept any kind of gift, not even if it's after the project has finished. That would be the same thing as taking a bribe.

**198. Answer: D**

This is a tough situation for any project manager. You've got a problem that's happened, and you didn't plan for it. Now it's going to cost you money. What do you do? Well, you can't just accept it and move on—that's only something you do with risks that have no other option. You have options with a problem that happens during your project. And you can't just go to the boss, because you're the project manager and it's your job to figure out what to do. There's no use in doing risk planning, because you already know the probability (100%) and impact (the cost of fixing the problem). So what do you do?

## Answers

~~Exam Questions~~

That's where your reserve comes in. There are two kinds of reserves: a contingency reserve and a management reserve. The contingency reserve is what you use for "known unknowns"—you use it to pay for risks that you've planned for. But this situation isn't like that. That's why you tap into the management reserve. That's the money in the budget you set aside for "unknown unknowns"—problems that you didn't plan for but which came up anyway.

**199. Answer: B**

When you have a project that's broken up into subprojects or phases, it's important that you perform the Initiating processes at the beginning of the project. Answer B is the one that best describes something that happens during the processes in the Initiating group—performing the Identify Stakeholders process.

**200. Answer: B**

This question looks hard, but it's actually pretty easy if you remember that Manage Stakeholder Expectations is just an ordinary Monitoring & Controlling process—it's the one for the Communications Management knowledge area. Once you know that, it's easy to pick out the output that doesn't fit! When you're handling a change in a Monitoring & Controlling process, you update your project plan and organizational process assets, and you request changes. But you don't create deliverables.

**So how'd you do?**

PMI uses a scoring system called the "Modified Agnoff Technique" (which they explain in the PMP Handbook, available for download from their website), which makes it a little hard to predict exactly how you'll do. But if you're scoring in the 80% to 90% range on this exam, then you're in really good shape.