

Answers

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

Work performance data 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

Translating your communications into a different language so that they can be transmitted to someone else is an example of encoding.

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 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!

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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 the only process in the Stakeholder Management knowledge area that is part of the Initiating process group.

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 $ETC = EAC - AC = \$84,210 - \$25,000 = \$59,210$.

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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.

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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 Control Quality 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 data, 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 Perform 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.

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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 WBSes 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 most importantly, a project charter 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.

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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 constraints you have to deal with.

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 Validate Scope happens before Control Scope, and sometimes it happens afterward—and sometimes it happens both before AND afterward. 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 Validate 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 Validate Scope. But you don't just perform Validate 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 Validate Scope fails because your team didn't do all of the work that was needed—that's why change requests are an output of Validate 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 Validate 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.

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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 and 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.

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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

Validate Scope is the Monitoring and 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. Any time 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.

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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, Control Quality 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

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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

Colocation 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 colocated 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.

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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 -25% to +75% of 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 you need to create the project charter (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.

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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.

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~~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.

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

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.

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!

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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

Coaching is an important interpersonal skill for any project manager to have. Any time you do coaching, mentoring, training, or anything else to help others learn about project management, you're not only helping your team member, you're also 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 he or she 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.

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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 either.

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.

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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 Control Quality. 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 he's 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.

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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

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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 neither of those numbers matches 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.

Answers

~~Exam Questions~~

95. Answer: B

Any time 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

While noise can interfere 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 making 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 $11 - 1 = 10$.

Answers

~~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 rework 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 rekeying 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.

Answers

~~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 toward that number.

Answers

~~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 its needs are met. However, you don't need to consider the needs of your company's competitors.

119. Answer: D

The project scope statement 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 its benefits.

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 it 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.

Answers

~~Exam Questions~~**124. Answer: B**

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

Control Procurements is the Monitoring and 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 Control 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 it 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."

Answers

~~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 demotivate 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 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

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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 and 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.

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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 is 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 he can't handle, just because he's 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. Resource calendars are important too; they'll tell you when your staff members will be available. You need to think about what staff members need to get done before they are released to work on other projects.

Answers

~~Exam Questions~~**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.

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

Checksheets are a great way to keep a tally of any quality-related activities you need to repeat while controlling quality or performing quality assurance on your project.

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 to or far from it you are.

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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

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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 anymore.

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 data 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 people 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 Control Quality.

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 Validate 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 Work are deliverables and work performance data. Work performance data is a name for all of the actual data that comes from the work your team is doing.

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 kickoff 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 and 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

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.

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

**182. Answer: D**

The kickoff 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. You figure out a project's NPV 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 Control Communications process. But that's not something you do during Control Risks—work performance information is an input to that process, which means it needs to be gathered *before* you start 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 happens only 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 Control Stakeholder Engagement is just an ordinary Monitoring and Controlling process—it's the one for the Stakeholder 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 and 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 it explains 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.