

PMP[®]

PRACTICE EXAM

(6th Edition)



PROJECT PREP

This full-length practice test is intended to be one of many possible tools that may help as you prepare for the Project Management Professional (PMP)[®] exam. This practice test is 200 questions and the answer key is on the last page of the document. The official exam is 200 questions and must be completed within four hours.

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1. **A project to build a new terminal at an airport is ongoing. Currently, the team is performing the plan cost management process. In doing so, which of the following activities might they complete?**
 - A. Calculating contingency allowances that will be used to account for uncertainty.
 - B. Reviewing strategic funding options, such as the possibility of using debt to fund the project.
 - C. Documenting risks that were considered when cost projections were prepared.
 - D. Establishing the amount of management reserve, which will be used to pay for unexpected work.
2. **Francesco is collecting requirements on a project that involves building a courthouse for a local government. In order to do so, he wants to use a brainstorming method that involves voting on several requirements before they are further prioritized. Which tool or technique would accomplish this task?**
 - A. Nominal Group Technique
 - B. Design of Experiments
 - C. Brainstorming
 - D. Focus Groups
3. **A project manager is preparing a scope management plan for a project that includes upgrading three waste-water treatment plants. Which of the following would not be included in that document?**
 - A. The steps for decomposing the scope into work packages
 - B. An explanation of how formal acceptance will be obtained on project deliverables
 - C. A listing of control accounts and planning packages
 - D. The process for creating the project scope statement
4. **A project manager is leading an effort to design a new 3D printer that accepts a broad range of filament types. During the project, she uses earned value analysis and determines that the CPI is 0.85 and the SPI is 1.25. What does this indicate?**
 - A. The project is under budget and ahead of schedule.
 - B. The project is over budget and behind schedule.
 - C. The project is under budget and behind schedule.
 - D. The project is over budget and ahead of schedule.
5. **A project manager is working with a team to revitalize a city park. At this point, she needs to understand what currency will be used to pay vendors working on the project. Which document should be reviewed to find this information?**
 - A. Procurement Management Plan
 - B. Cost Management Plan
 - C. Cost Baseline
 - D. Procurement Documents
6. **A department store is working on a project to close several locations. During the project, the team spends time decomposing project work into smaller components. What is an output from that process?**
 - A. Project Scope Statement
 - B. Requirements Traceability Matrix
 - C. Scope Baseline
 - D. Lessons Learned Register

7. **On your project, 12 stakeholders have been identified. Based on this information, how many possible communication channels exist?**
- A. 66
 - B. 132
 - C. 72
 - D. 6
8. **You are managing a project to develop the next version of a popular financial management tool for small businesses. At this point on your project, you are in the process of collecting requirements from stakeholders. One of the tools that will be used are surveys that will be sent to users. Which of the following are inputs of that process?**
- A. Assumption Log, Requirements Documentation, Project Charter
 - B. Project Scope Statement, Requirements Documentation, Quality Reports
 - C. Lessons Learned Register, Requirements Traceability Matrix, Risk Register
 - D. Project Charter, Lessons Learned Register, Agreements
9. **On a project to landscape the grounds of a large university, the team spends time approximating the number of work periods needed to complete project activities. In this case, what process is being performed?**
- A. Develop Schedule
 - B. Estimate Activity Durations
 - C. Sequence Activities
 - D. Create WBS
10. **A project manager is creating a stakeholder engagement plan for a project that involves redesigning the aluminum packaging for a popular soft drink. Which of the following would not be included in that document?**
- A. A formal or informal set of plans for engaging specific stakeholders
 - B. The classification of known stakeholders
 - C. Strategies for working productively with those who are impacted by the project
 - D. A list of tactics for dealing with demanding stakeholders
11. **On a project to educate users on how use "two-factor authentication" to protect their bank accounts, the team spends time improving team skills and relations to enhance project performance. What is an input to that particular process?**
- A. Resource Management Plan
 - B. Team Performance Assessments
 - C. Conflict Management
 - D. Leadership
12. **On a given project; earned value (EV) is \$30,000; actual cost (AC) is \$35,000; and planned value (PV) is \$28,000. What is the schedule performance index (SPI)?**
- A. 0.86
 - B. 1.16
 - C. 1.07
 - D. 0.93

13. **At a grocery store chain, a project is in process to deploy self-checkout registers at all of the company's California locations. During the project, the team spends time creating and using knowledge to support the project and the organization. What is a tool or technique that may be needed to perform this process?**
- A. Lessons Learned Register
 - B. Project Management Information System
 - C. Information Management
 - D. Issue Log
14. **As a team, you have already planned and implemented responses to risks that were identified. Your task now is to monitor those risks. Which of the following are inputs to that process?**
- A. Risk Register, Work Performance Information, Risk Report
 - B. Risk Report, Work Performance Reports, Stakeholder Register
 - C. Project Management Plan, Issue Log, Agreements
 - D. Risk Management Plan, Work Performance Data, Risk Register
15. **A project team is designing a bracelet with a microchip that allows parents to track the location of their children. During the project, the team identifies quality requirements and documents how to comply with them. What is a tool or technique that may be needed to perform this process?**
- A. Test & Inspection Planning
 - B. Quality Improvement Methods
 - C. Checklists
 - D. Statistical Sampling
16. **Which of the following is true about predictive life cycles?**
- A. Requirements and plans are handled and expanded on frequently during delivery
 - B. Delivery is divided into subsets of the overall product
 - C. Risk and costs are controlled as requirements and constraints emerge
 - D. Change is limited as much as possible
17. **A project has been funded by a local government to study the causes of a series of car accidents that have occurred at the same intersection. During the project, the team spends time managing procurement relationships and monitoring contractor performance. Which of the following is not a tool or technique that may be needed to perform this particular process?**
- A. Variance Analysis
 - B. Earned Value Analysis
 - C. Performance Reviews
 - D. Proposal Evaluation
18. **At this point on your project, you are in the process of developing the project management plan, which will integrate several other plans, such as the cost management plan and schedule management plan, into one document. Which of the following are inputs of that process?**
- A. Outputs from Other Processes, Business Documents, Project Documents
 - B. Project Charter, Approved Changed Requests, Deliverables
 - C. Project Charter, Outputs from Other Processes, Organizational Process Assets
 - D. Organizational Process Assets, Enterprise Environmental Factors, Agreements

19. On a given project; earned value (EV) is \$250,000; actual cost (AC) is \$215,000; and planned value (PV) is \$300,000. What is the cost performance index (CPI)?
- A. 0.86
 - B. 1.16
 - C. 0.83
 - D. 1.2
20. On a project to overhaul a city's waste management system, the team spends time detecting threats and opportunities that may impact the project. In this case, what process is being performed?
- A. Plan Risk Management
 - B. Plan Risk Responses
 - C. Implement Risk Responses
 - D. Identify Risks
21. At this point on your project, you are in the process of controlling costs. You want to determine if you are staying within your budget. Which of the following are outputs of that process?
- A. Work Performance Information and Cost Forecasts
 - B. Cost Baseline and Project Funding Requirements
 - C. Change Requests and Work Performance Data
 - D. Cost Forecasts and Verified Deliverables
22. A global technology company has several projects that involve large, enterprise-wide system deployments. In other words, they impact several departments across the organization. In these types of scenarios, which of the following project lifecycles are commonly used?
- A. Agile
 - B. Predictive
 - C. Adaptive
 - D. Iterative
23. You work at an aerospace company and are leading a project to launch a satellite, which will be used for academic research. Currently, the team is performing the manage communications process. In doing so, which of the following activities might they complete?
- A. Conducting surveys of stakeholders to see if communication needs have been met.
 - B. Creating an ad-hoc report for a key project stakeholder.
 - C. Evaluating whether or not communication on the project has been effective.
 - D. Determining how information on the project will be distributed and stored.
24. All of the following are true about firm fixed price (FFP) contracts except:
- A. The price is set at the start of the contract.
 - B. The price is not subject to change.
 - C. If a change to scope is needed, the buyer will likely need to pay more.
 - D. They are useful for staff augmentation.

25. **A project manager is working with a team to design a new printer that addresses several flaws in previous models. At this point, she needs to understand what funds will be needed to appropriately respond to risks on the project. Which document should be reviewed to find this information?**
- A. Risk Management Plan
 - B. Cost Management Plan
 - C. Risk Register
 - D. Cost Aggregation
26. **As a team, you have already verified the quality of several project deliverables. Your next step is to get formal acceptance of those deliverables from your customers. This process is referred to as validating the scope. Which of the following are outputs of that process?**
- A. Work Performance Information, Scope Baseline, Scope Management Plan
 - B. Accepted Deliverables, Work Performance Information, Change Requests
 - C. Change Requests, Scope Baseline, Project Scope Statement
 - D. Scope Baseline, Project Scope Statement, Verified Deliverables
27. **During a project to migrate user data between database technologies, the project manager spends time tracking team member performance, providing feedback, and resolving issues. What is an output from that process?**
- A. Project Team Assignments
 - B. Team Charter
 - C. Change Requests
 - D. Enterprise Environmental Factors
28. **A project manager is working with a team to create and test a new flavor of a popular soft drink. Early in the project, she would like to see a high-level summary of project milestones. Which document should be reviewed to find this information?**
- A. Organizational Process Assets
 - B. Schedule Data
 - C. Schedule Management Plan
 - D. Project Charter
29. **A project manager is creating a risk management plan for a project that involves relocating office workers at a technology company to a new building. Which of the following would not be included in that document?**
- A. The funds that will be needed to respond to risks on the project
 - B. The distribution of identified risks across various risk categories
 - C. The procedures for how management and contingency reserves will be used
 - D. A description of the format that will be used to report threat and opportunities on the project
30. **You are managing an effort to remodel three local restaurants. At this point on your project, you are in the process of defining the activities. Which of the following are tools or techniques of that process?**
- A. Rolling Wave Planning, Meetings, Leads & Lags
 - B. Expert Judgment, Decomposition, Rolling Wave Planning
 - C. Resource Optimization, Data Analysis, Decision Making
 - D. Decomposition, Precedence Diagramming Method, Meetings

31. **On a given project, the budget at completion (BAC) is \$1,00,000. If your current estimate at completion (EAC) is \$1,100,000; what is the variance at completion (VAC)?**
- A. -\$100,000
 - B. \$1,100,000
 - C. -\$1,100,000
 - D. \$100,000
32. **A project to widen broadband access in Poland was undertaken to fulfill a politician's campaign promise. During the project, the team spends time prioritizing risks by evaluating their probability and impact. What is a tool or technique that may be needed to perform this process?**
- A. Sensitivity Analysis
 - B. Simulations
 - C. Organizational Process Assets
 - D. Risk Probability & Impact Assessment
33. **A project to construct a grocery store that will specialize in organic foods is underway. Currently, the team is performing the collect requirements process. In doing so, which of the following activities might they complete?**
- A. Determining which of the documented requirements will be completed as part of the project.
 - B. Meeting with stakeholders to capture their needs and to ensure they are measurable.
 - C. Splitting the work of the project to make it easier to manage and monitor.
 - D. Determining how the project work; which will produce the desired products, services, or results; will be defined and controlled.
34. **A project manager on a software development project was asked by her client to add another feature. (This occurred after the scope had been baselined.) She reviewed the request, assessed the impact, and received approval to update the scope. In this scenario, which of the following processes were used?**
- A. Direct and Manage Project Work
 - B. Manage Project Knowledge
 - C. Perform Integrated Change Control
 - D. Monitor and Control Project Work
35. **Jose is developing the schedule on a project that involves renovating dorms at a nearby university. In order to complete that process, he needs to identify the early and late start and finish dates of activities. Which tool or technique would accomplish this task?**
- A. Leads & Lags
 - B. Critical Path Method
 - C. Schedule Compression
 - D. Schedule Network Analysis

36. **A project to recall a car part that was found to be defective has nearly begun. Currently, the team is performing the develop project charter process. In doing so, which of the following activities might they complete?**
- A. Coordinating and consolidating various plans that will be baselined and placed under formal change control procedures.
 - B. Considering positive and negative experiences from previous projects to increase the likelihood of success on the current project.
 - C. Developing a document that, when approved, will allow the project manager to use organizational resources to complete the project.
 - D. Determining how the project work; which will produce the desired products, services, or results; will be defined and controlled.
37. **A project manager is creating a quality management plan for a project that involves creating a dashboard that will be used to report on several of the company's key performance indicators. Which of the following would not be included in that document?**
- A. The roles and responsibilities of those who will perform quality management on the project
 - B. A list of all the quality management issues that were escalated by the team
 - C. The process for dealing with defects in project deliverables when they are identified
 - D. The list of project deliverables that will be subject to a quality review
38. **Elizabeth is estimating costs on a project that involves deploying asset management software to track technology equipment at an aerospace company. She decides to aggregate estimates of low-level WBS components to generate the estimate. In this case, what estimating technique is being used?**
- A. Bottom-Up Estimating
 - B. Analogous Estimating
 - C. Parametric Estimating
 - D. Three-Point Estimating
39. **Which of the following is not true about cost management on agile projects?**
- A. Detailed estimates are primarily for near-term planning.
 - B. Lightweight estimates may provide fast, high-level estimates of overall project costs.
 - C. Detailed estimates are utilized at the start of the project to determine total project costs.
 - D. Lightweight estimates are for long-term planning.
40. **While performing schedule management on your project, you need to determine the relationships between activities so that those activities are sequenced in the proper order. Which of the following is not true about activity sequencing?**
- A. It involves identifying and documenting relationships among tasks.
 - B. It defines the logical sequence of work given certain constraints.
 - C. All tasks (including the first and the last) must have both a predecessor and a successor.
 - D. Sequencing can be done manually by hand or automatically using software.

41. **Robert is determining the budget that will be required on a project to relocate a company's operations to a new building. In doing so, he needs to evaluate whether or not funding will be available when expenses need to be paid. What should Robert use in this scenario?**
- A. Funding Limit Reconciliation
 - B. Historical Information Review
 - C. Financing
 - D. Cost Aggregation
42. **A project manager is preparing a communications management plan for a project that includes constructing a new wing in a hospital that will focus on the treatment of cancer patients. Which of the following would not be included in that document?**
- A. The information needs of your stakeholders
 - B. A description of strategies that will be used to engage those impacted by the project
 - C. A list of resources that will be allocated to communication activities
 - D. The process that the project manager or stakeholders can use to escalate concerns
43. **A project to relocate employees of an insurance company to a new office building has been funded and approved. However, the project manager has determined that they will need help from outside vendors to complete it. She also knows that significant changes to scope are likely and a fee will be paid if the vendors meet broad, subjective performance criteria. In this scenario, which type of contract should be utilized?**
- A. Cost Plus Fixed Fee (CFPP)
 - B. Cost Plus Incentive Fee (CPIF)
 - C. Cost Plus Award Fee (CPAF)
 - D. Fixed Price Incentive Fee (FPIF)
44. **Maria is developing the schedule on a project that involves constructing an oil pipeline that will start in Canada and go through the mid-western United States. In order to complete that process, she needs to estimate the minimum project duration and amount of scheduling flexibility. Which tool or technique would accomplish this task?**
- A. Resource Optimization
 - B. Critical Path Method
 - C. Schedule Network Analysis
 - D. Schedule Compression
45. **On a project to construct a toll road, which is expected to relieve traffic congestion and generate tax revenue, a team spends time documenting needs of their stakeholders. In this case, what process is being performed?**
- A. Define Scope
 - B. Plan Scope Management
 - C. Manage Stakeholder Engagement
 - D. Collect Requirements

46. **A technology company that specializes in creating software applications for dental offices is working on several multi-year projects for their customers. However, three new competitors, who are seeking to take away those customers, have recently entered the market. In this scenario, these marketplace conditions would be best classified as which of the following?**
- A. An enterprise environmental factor
 - B. An industry standard
 - C. An organizational process asset
 - D. A lesson that was learned
47. **A project manager is preparing a procurement management plan for a project that includes renovating a high school on a military base. Which of the following would not be included in that document?**
- A. The currency that will be used to pay vendors working on the project
 - B. A decision about whether or not certain scope will be completed by the project team or procured from outside vendors
 - C. The timetable of procurement activities
 - D. A statement on whether or not independent estimates will be needed prior to requesting and purchasing services from vendors
48. **As a project manager, you know that your projects are impacted by factors that are often outside of your control. Those factors could be internal or external to your organization, and they could have a positive or negative impact. Enterprise environmental factors are one such example. Which of the following is considered an enterprise environmental factor?**
- A. Political Climate
 - B. Organizational Communication Requirements
 - C. Human Resource Policies
 - D. Knowledge Bases
49. **A project manager on a factory automation project prepares a memo for the sponsor. It explains that a key deliverable is behind schedule and that the expected completion date will be two weeks later than originally planned. This memo would be classified as which type of project information?**
- A. Work Performance Information
 - B. Work Performance Data
 - C. Enterprise Environmental Factors
 - D. Work Performance Reports
50. **A project manager at a company that services luxury cars attends a training to learn about earned value management. She believes it could be a valuable tool on her projects. This particular training would be considered a way to strengthen her skills in which of the following areas of the PMI Talent Triangle®?**
- A. Technical Project Management
 - B. Cost Control
 - C. Leadership
 - D. Strategic and Business Management

51. **A project manager is working with a team to train employees at a technology company in Lean Six Sigma. At this point, she needs to determine what levels of cost variance are acceptable before action needs to be taken. Which document should be reviewed to find this information?**
- A. Work Performance Report
 - B. Risk Management Plan
 - C. Cost Management Plan
 - D. Cost Baseline
52. **A project to configure new content management software for an online news agency is underway. Currently, the team is performing the plan schedule management process. In doing so, which of the following activities might they complete?**
- A. Evaluating project scope and required resources in order to approximate the number of work periods needed to complete the activities.
 - B. Identifying methods that will be used to develop the project timeline.
 - C. Mapping the flow of activities to most efficiently complete the work given various constraints.
 - D. Working with team members to identify the steps required to complete project work packages.
53. **Your project team gets together outside of work to socialize and strengthen relationships. As a result, communication and trust improves among team members. In this scenario, which process was used?**
- A. Plan Resource Management
 - B. Manage Team
 - C. Manage Communications
 - D. Develop Team
54. **At this point on your project, you are in the process of managing the team, which includes tracking their performance and providing them feedback. Which of the following are inputs of that process?**
- A. Team Charter, Change Requests, Work Performance Data
 - B. Resource Management Plan, Agreements, Resource Calendars
 - C. Work Performance Reports, Team Performance Assessments, Environmental Process Assets
 - D. Team Performance Assessments, Organizational Process Assets, Project Charter
55. **On a home renovation project, the team aggregates the costs that had been estimated for demolition, paint, flooring, and appliances. They also add reserve for unknown events that arise. In this scenario, which of the following processes were used?**
- A. Estimate Costs
 - B. Determine Budget
 - C. Plan Cost Management
 - D. Control Costs
56. **At a recent meeting on a project to remodel a hotel that was constructed more than 60 years ago, you inform your stakeholders that you are in the process of conducting procurements. What is an activity that could be performed during that process?**
- A. Confirming that payments are made to sellers as outlined in the terms of the contract.
 - B. Preparing a request for information to get feedback from potential vendors.
 - C. Defining the portion of scope that will be completed by outside vendors.
 - D. Using advertisements to expand the pool of interested vendors.

57. **During a project to plan an event for an association of realtors, the team spends time documenting how they will estimate and control costs. What is a tool or technique that may be needed to perform this process?**
- A. Analogous Estimating
 - B. Cost Aggregation
 - C. Expert Judgment
 - D. Alternatives Analysis
58. **As you work with your sponsor, you communicate how the structure of your organization influences the delivery of your project. Which of the following statements, if said, would not be true concerning organizational structures?**
- A. In a weak matrix, project managers have more authority than functional managers
 - B. In a strong matrix, the role of project manager is typically full-time
 - C. In a projectized organization, resource availability for projects is high
 - D. In a weak matrix, project management administrative staff are part-time
59. **After a project has been baselined, changes to plans need to be carefully controlled. This process is referred to as integrated change control. Which of the following documents typically outlines who is responsible for approving change requests?**
- A. Stakeholder Register
 - B. Project Management Plan
 - C. Project Charter
 - D. Change Log
60. **On a project to demolish an aging office building (prior to the construction of new condominiums), the team spends time analyzing activity sequences and estimates to create the schedule. What is an input to that particular process?**
- A. Agreements
 - B. Schedule Data
 - C. Project Calendars
 - D. Change Requests
61. **At a recent meeting on a project to transition a company's headquarters from California to Texas, you discuss progress being made on monitoring stakeholder engagement. What is an activity that could be performed during that process?**
- A. Conducting surveys of stakeholders to see if communication needs have been met.
 - B. Creating an ad-hoc report for a key project stakeholder.
 - C. Determining how to modify the plan for engaging stakeholders to ensure their ongoing commitment.
 - D. Classifying stakeholders based on their level of authority.
62. **A project manager is working with a team to design new cases for the next version of a popular smartphone. At this point, she needs to understand what financial incentives may be offered to project team members upon successful completion of the project. Which document should be reviewed to find this information?**
- A. Benefits Management Plan
 - B. Cost Baseline
 - C. Cost Management Plan
 - D. Resource Management Plan

63. **You are soliciting advice from several experts, who have worked on similar projects, as you prepare the work breakdown structure (WBS). Which of the following is not a purpose of this document?**
- A. Articulate the components of work that will satisfy project objectives.
 - B. Subdivide the project work into more manageable components.
 - C. Outline the duration required to complete project activities.
 - D. Provide a hierarchical structure for assigning costs to work packages.
64. **As you collect requirements for a new laptop, you choose to share a model of the final product with your stakeholders. You believe that you will receive much better feedback through this method than if you simply attempted to explain the product. In this case, which of the following tools and technique should be used?**
- A. Prototypes
 - B. Observations
 - C. Benchmarking
 - D. Focus Groups
65. **A project manager is leading an effort to launch a small satellite into low-earth orbit. During the project, she uses earned value analysis and determines that the CPI is 0.90 and the SPI is 0.85. What does this indicate?**
- A. The project is under budget and ahead of schedule.
 - B. The project is over budget and behind schedule.
 - C. The project is under budget and behind schedule.
 - D. The project is over budget and ahead of schedule.
66. **A project is underway to evaluate the impact of rising sea levels on oceanfront homes in Hawaii. During the project, the team spends time creating and distributing project information. What is an input to that particular process?**
- A. Project Communications
 - B. Project Reporting
 - C. Communication Technology
 - D. Stakeholder Engagement Plan
67. **A project to construct a new high school to alleviate overcrowding at three other local schools is underway. Currently, the team is performing the manage quality process. In doing so, which of the following activities might they complete?**
- A. Using the six sigma methodology to identify process improvement opportunities.
 - B. Determining if the deliverables are complete, correct, and compliant with appropriate standards.
 - C. Testing project deliverables to identify errors or defects.
 - D. Using a SIPOC diagram to understand a process and predict where quality defects may occur.
68. **On your project, 15 stakeholders have been identified. Based on this information, how many possible communication channels exist?**
- A. 210
 - B. 105
 - C. 113
 - D. 29

69. **On a project to identify a solution to address a major software vulnerability, the team spends time obtaining the manpower, materials, and equipment needed to complete the project. In this scenario, what process is being performed?**
- A. Estimate Activity Resources
 - B. Acquire Resources
 - C. Control Resources
 - D. Plan Resource Management
70. **You have just been assigned to lead a project that is already underway. The objective is to migrate several production databases to cloud servers. At this point, the team is acquiring resources. In doing so, which of the following activities might they perform?**
- A. Arranging for key project team members to be at the same site near critical milestones
 - B. Consulting with experts in talent management and training.
 - C. Evaluating alternative resource options, such as renting or buying the needed equipment.
 - D. Working with functional managers to assign the appropriate resources to project work.
71. **On a given project; actual cost (AC) is \$500,00; estimate at completion (EAC) is \$800,000; and planned value is \$850,000. What is estimate to completion (ETC)?**
- A. \$50,000
 - B. \$350,000
 - C. \$300,000
 - D. \$1,300,000
72. **On a project to setup a technology environment that allows a clothing business to process and gather insights from large volumes of customer data, the team spends time formally closing the project. What is an output from that process?**
- A. Agreements
 - B. Final Report
 - C. Procurement Documentation
 - D. Accepted Deliverables
73. **You have just been assigned to lead a project that is already underway. The objective is to design and test a new self-driving car. At this time, the develop team process is being performed. In doing so, which of the following activities might be completed?**
- A. Arranging for key project team members to be at the same site near critical milestones
 - B. Resolving a conflict between two team members.
 - C. Ensuring that assigned resources are available as originally planned.
 - D. Evaluating alternative resource options, such as renting or buying the needed equipment.
74. **A fast food restaurant chain is working on a project that involves piloting the use of drone technology to make local deliveries. During the project, the team spends time documenting how the schedule will be developed and controlled. What is an input to that particular process?**
- A. Activity List
 - B. Schedule Management Plan
 - C. Work Performance Data
 - D. Project Charter

75. **On a given project, the budget at completion (BAC) is \$375,000. If your current estimate to completion (ETC) is \$50,000 and estimate at completion (EAC) is \$300,000; what is the variance at completion (VAC)?**
- A. \$75,000
 - B. -\$50,000
 - C. \$25,000
 - D. -\$25,000
76. **A project is underway to launch a new service that allows users to share bikes on college campuses. During the project, the team spends time documenting how to estimate, acquire, and manage required project resources. What is an output from that process?**
- A. Resource Breakdown Structure
 - B. Project Team Assignments
 - C. Resource Requirements
 - D. Team Charter
77. **A project to develop a web-based inventory management system is ongoing. Currently, the team is performing the manage project knowledge process. In doing so, which of the following activities might they complete?**
- A. Evaluating project performance to determine if any preventive or corrective action is needed.
 - B. Archiving project information and releasing and reallocating project resources.
 - C. Allocating available resources (labor, material, and equipment) to activities in the project plan.
 - D. Considering positive and negative experiences from previous projects to increase the likelihood of success on the current project.
78. **A project in Europe is underway to secure an electric grid to reduce the likelihood of a computer hack. During the project, the team spends time defining strategies and action to address project risks. Which of the following is not a tool or technique that may be needed to perform this process?**
- A. Contingent Response Strategies
 - B. Cost-Benefit Analysis
 - C. Decision Tree Analysis
 - D. Strategies for Threats
79. **A project to renovate a hotel that was built in the 1970s is underway. Currently, the team is performing the control quality process. In doing so, which of the following activities might they complete?**
- A. Using audits to determine if activities on the project are conforming to organizational policies and then addresses gaps, if needed.
 - B. Testing project deliverables to identify errors or defects.
 - C. Using the six sigma methodology to identify process improvement opportunities.
 - D. Determining appropriate investments in prevention and appraisal costs in order to avoid quality failures.

80. **You were recently hired by a gaming company to lead a strategic project. Before moving forward, you understand that the structure of the organization will influence your work. The gaming company is considered a projectized organization. Which of the following is not true about that organizational type?**
- A. Project managers hold more authority than functional managers
 - B. Resource availability for projects is high
 - C. Functional managers control less of the budgets than project managers
 - D. Project managers have roles that are part-time
81. **A project manager is creating a procurement management plan for a project that involves implementing software that will be used to track and follow up on sales leads. Which of the following would not be included in that document?**
- A. The criteria that will be used when determining which vendor to select
 - B. The roles and responsibilities related to the procurement
 - C. An explanation of how vendor performance will be monitored and measured
 - D. A list of pre-qualified sellers, if any
82. **Which of the following is true about scope management on agile projects?**
- A. Scope would only change when a change request is approved
 - B. Scope is defined at the beginning of the project
 - C. Project scope includes the features and functions of the project
 - D. Scope is approved at the start of each iteration
83. **At this point on your project, you are in the process of reviewing and approving change requests and then communicating those decisions to your stakeholders. Which of the following are inputs of that process?**
- A. Project Management Plan, Work Performance Reports, Change Requests
 - B. Project Charter, Change Requests, Agreements
 - C. Work Performance Reports, Work Performance Information, Project Documents
 - D. Change Requests, Project Management Plan, Approved Changed Requests
84. **All of the following are true about fixed price with economic price adjustment (FP-EPA) contracts except:**
- A. The price is set at the start of the contract.
 - B. There may be price adjustments over time based on changes to certain financial indices.
 - C. They are often used when a contract is several years in length.
 - D. The duration and scope can be left open-ended.
85. **A project manager is working with a team to automate several manufacturing steps at a tire production plant. At this point, she needs to understand what process should be used when the project team (or stakeholders) need to escalate concerns. Which document should be reviewed to find this information?**
- A. Risk Management Plan
 - B. Stakeholder Register
 - C. Communications Management Plan
 - D. Stakeholder Engagement Plan

86. **A project to construct a bypass has the goal of easing traffic congestion near a large city. During the project, the team spends time communicating with their stakeholders and addressing their issues and concerns. In this scenario, what process is being performed?**
- A. Manage Stakeholder Engagement
 - B. Monitor Stakeholder Engagement
 - C. Manage Communications
 - D. Plan Stakeholder Engagement
87. **Your project team has been tasked with designing a new, more fuel-efficient truck. At this time, the team is implementing risk responses. In doing so, which of the following activities might they perform?**
- A. Exploring options for addressing risks that have been previously identified.
 - B. Evaluating whether or not risks responses have been effective.
 - C. Performing sensitivity analysis and displaying the results using a tornado diagram.
 - D. Taking action to increase the likelihood that opportunities on the project occur.
88. **A project manager is working with a team to redesign the layout of a cabinet manufacturing plant to improve the flow of materials. At this point, she needs to understand what format should be used to report threats and opportunities to stakeholders. Which document should be reviewed to find this information?**
- A. Risk Management Plan
 - B. Work Performance Reporting
 - C. Communications Management Plan
 - D. Stakeholder Engagement Plan
89. **A project manager is preparing a cost management plan for a project that includes constructing a hanger for military aircrafts. Which of the following would not be included in that document?**
- A. An explanation of how earned value management will be used on the project
 - B. The format for reporting cost performance
 - C. The degree of cost variance that would be acceptable before action needs to be taken
 - D. The basis of estimates that provides additional detail and supports cost estimates
90. **On a given project; earned value (EV) is \$30,000; actual cost (AC) is \$35,000; and planned value (PV) is \$28,000. What is the cost variance (CV)?**
- A. \$2,000
 - B. -\$5,000
 - C. \$5,000
 - D. -\$2,000
91. **A team of experts is working on a project to simulate the impact of altering an assembly line that manufactures tablet computers. During that project, the team spends time determining who will be affected by the project and noting their involvement and impact. What is an input to that particular process?**
- A. Stakeholder Register
 - B. Stakeholder Analysis
 - C. Project Charter
 - D. Stakeholder Mapping

92. **A project to build a facility for training military personnel in cybersecurity operations has been funded and approved. However, the project manager has determined that they will need help from outside vendors to complete it. At this time, the scope is not clear, and the project manager only needs to augment her existing team with experts in cybersecurity. In this scenario, which type of contract should be utilized?**
- A. Cost Plus Fixed Fee (CFPP)
 - B. Cost Plus Incentive Fee (CPIF)
 - C. Cost Plus Award Fee (CPAF)
 - D. Time & Materials (T&M)
93. **A project manager is creating a project charter for a project that involves constructing a new research lab at a major university. Which of the following would not be included in that document?**
- A. A list of project exit criteria
 - B. A comprehensive list of stakeholders and their classification
 - C. A summary explanation of the purpose and objectives of the project
 - D. A high-level summary of project milestones
94. **At this point on your project, you are in the process of defining the steps or activities that must be performed to complete the deliverables. Which of the following are outputs of that process?**
- A. Activity Attributes, Duration Estimates, Basis of Estimates
 - B. Schedule Baseline, Project Schedule, Activity List
 - C. Activity List, Activity Attributes, Milestone List
 - D. Activity List, Schedule Forecasts, Change Requests
95. **Your project team is designing a new bicycle. During planning, they take the bicycle scope and divide it into smaller, more manageable components – the frame, wheels, braking system, shifting system, etc. In this instance, which of the following processes were used?**
- A. Define Scope
 - B. Create WBS
 - C. Define Activities
 - D. Control Scope
96. **Evelyn is performing risk management on a project that involves upgrading employee computers to a new version of an operating system. In order to complete that process, she would like to review risks from past projects to determine whether or not they may be relevant for this new project. Which tool or technique would accomplish this task?**
- A. SWOT Analysis
 - B. Assumptions Analysis
 - C. Checklists
 - D. Multi-Criteria Decision Analysis

97. **A project to configure mapping technology that will be used by a shipping company to route deliveries is ongoing. Currently, the team is performing the sequence activities process. In doing so, which of the following activities might they complete?**
- A. Evaluating project scope and required resources in order to approximate the number of work periods needed to complete the activities.
 - B. Adjusting start and finish dates of activities based on the availability of resources.
 - C. Mapping the flow of activities to most efficiently complete the work given various constraints.
 - D. Working with team members to identify the steps required to complete project work packages.
98. **Ayesha is monitoring the schedule on a project that involves constructing a power plant to provide electricity to 50,000 homes. In doing so, she realizes that the team is behind on several activities and that she needs to shorten the schedule without reducing the scope. Which tool or technique would accomplish this task?**
- A. Critical Path Method
 - B. Agile Release Planning
 - C. Resource Optimization
 - D. Schedule Compression
99. **Which of the following is not true about resource management on agile projects?**
- A. Planning for physical and human resources is more predictable
 - B. Self-organizing teams with generalizing specialists are encouraged
 - C. The structure of the team should maximize focus and collaboration
 - D. Collaboration is critical and is intended to boost productivity
100. **A project is underway to construct a cell phone tower that will improve the performance of a company's wireless network. During the project, the team spends time approximating the finances needed to complete the construction activities. In this case, what process is being performed?**
- A. Estimate Costs
 - B. Determine Budget
 - C. Plan Cost Management
 - D. Control Costs
101. **While performing schedule management on your project, you need to determine the relationships between activities so that those activities are sequenced in the proper order. Which of the following is not true about activity sequencing?**
- A. It involves identifying and documenting relationships among tasks.
 - B. It defines the logical sequence of work given certain constraints.
 - C. It includes assigning resources to activities.
 - D. Every task (except for the first and last) should have both a predecessor and a successor.
102. **A construction team can install carpet in a building fifteen days after they begin painting. This is an example of a/an:**
- A. Task
 - B. Lead
 - C. Activity
 - D. Lag

103. **After we identify risks that could impact the success of our project and make assessments of their probability and impact, we can begin quantitative risk analysis. In doing so, we may use _____, which helps to determine the individual project risks that have the most potential impact on project outcomes. One way of displaying this information is through a Tornado diagram.**
- A. Sensitivity Analysis
 - B. Decision Tree Analysis
 - C. Monte Carlo Simulation
 - D. Delphi Techniques
104. **A project to train soldiers for an overseas mission has been funded and approved. However, the project manager has determined that they will need help from outside vendors to complete it. At this time, the scope is clearly defined, and the project manager does not expect any significant changes. She would also like to offer bonuses if the vendors meet certain predefined objectives. In this scenario, which type of contract should be utilized?**
- A. Cost Plus Incentive Fee (CPIF)
 - B. Fixed Price Incentive Fee (FPIF)
 - C. Fixed Price with Economic Price Adjustment (FP-EPA)
 - D. Cost Plus Award Fee (CPAF)
105. **A project to train a company's accountants on new bookkeeping software has begun. Currently, the team is performing the create WBS process. In doing so, which of the following activities might they complete?**
- A. Determining which of the documented requirements will be completed as part of the project.
 - B. Meeting with stakeholders to capture their needs and to ensure they are measureable.
 - C. Splitting the work of the project to make it easier to manage and monitor.
 - D. Determining how the project work; which will produce the desired products, services, or results; will be defined and controlled.
106. **A project manager is working with a team to construct a new toll road that will connect two cities. At this point, she needs to understand how to deal with defects in project deliverables when they are identified. Which document should be reviewed to find this information?**
- A. Quality Audits
 - B. Quality Control Measurements
 - C. Risk Management Plan
 - D. Quality Management Plan
107. **As a project manager, you know that your projects are impacted by factors that are often outside of your control. Those factors could be internal or external to your organization, and they could have a positive or negative impact. Organizational process assets are one such example. Which of the following is considered an organizational process asset?**
- A. Political Climate
 - B. Existing Human Resources
 - C. Change Control Procedures
 - D. Geographic Distribution of Facilities

- 108. You are working for a car company and are leading a project to construct a new battery factory. Currently, the team is performing the plan risk management process. In doing so, which of the following activities might they complete?**
- A. Exploring options for addressing risks that have been previously identified.
 - B. Determining the stakeholders' appetite for risk.
 - C. Meeting with project team members to brainstorm sources of overall project risk.
 - D. Determining which risks to transfer to a third party.
- 109. A project manager has created a dashboard for stakeholders that summarizes the overall status of the project. Among other information, it shows upcoming milestones and whether or not those milestones are expected to complete on time. This dashboard would be classified as which type of project information?**
- A. Work Performance Information
 - B. Work Performance Data
 - C. Enterprise Environmental Factors
 - D. Work Performance Reports
- 110. As you work with your sponsor, you communicate how the structure of your organization influences the delivery of your project. Given that your company is considered a functional organization, all of the following would be true except:**
- A. Functional managers hold more authority than project managers
 - B. Resource availability for projects is moderate
 - C. Functional managers control the budget
 - D. Project managers have roles that are part-time
- 111. A healthcare company that makes equipment for spinal surgeries has decided to setup a PMO in hopes of improving the delivery of their research and development projects. The PMO will provides templates, tools, and coaching to aid projects mangers and simplify their work. Which type of PMO does this represent?**
- A. Supportive
 - B. Controlling
 - C. Directive
 - D. Strategic
- 112. A project manager at a company that makes hiking equipment speaks with key stakeholders about projected growth in the sporting goods market. This activity would fit into which of the following skills set in the PMI Talent Triangle®?**
- A. Strategic and Business Management
 - B. Technical Project Management
 - C. Leadership
 - D. Market Assessment
- 113. A project to lead a joint military training exercise with two other countries is underway. Currently, the team is performing the perform integrated change control process. In doing so, which of the following activities might they complete?**
- A. Evaluating project performance to determine if any preventive or corrective action is needed.
 - B. Releasing and reallocating project resources and archiving project information.
 - C. Reviewing proposed adjustments to project baselines and the supporting cost estimates.
 - D. Evaluating the completion of project deliverables and preventing scope creep.

- 114. In regards to agile projects, which of the following is not true?**
- A. If the scope is not yet fully defined, projects may not benefit from detailed cost calculations
 - B. Detailed estimates are used for short-term planning horizons
 - C. Close collaboration among team members is critical
 - D. Infrequent checkpoints are valued and prevent distraction
- 115. On a project to design a new self-driving vehicle, the team spends time developing a detailed project and product description that will help set boundaries for the project. What is an input to that particular process?**
- A. Stakeholder Register
 - B. Requirements Documentation
 - C. Project Scope Statement
 - D. Alternatives Analysis
- 116. You were recently hired by a pharmaceutical company to lead a high priority project. Before moving forward, you understand that the structure of the organization will influence your work – whether for good or bad. The pharmaceutical company is considered a functional organization. All of the following are true about that organizational type except:**
- A. Functional managers hold more authority than project managers
 - B. Resource availability for projects is low
 - C. Project managers control more of the budgets than functional managers
 - D. Project managers have roles that are part-time
- 117. During planning phases, projects are baselined. After that, any proposed changes to those plans need to be carefully controlled and considered in the context of the overall project. This process is referred to as integrated change control. All of the following is true about this process except:**
- A. It is conducted throughout the life of a project.
 - B. The approver of changes will be identified in the project management plan.
 - C. Change requests should include any impact to cost and schedule.
 - D. Baselines are revised prior to the submission of change requests.
- 118. A project is underway to upgrade an oil pipeline in order to meet a new legal requirement. During that project, the team spends time identifying relationships (or order) of project activities. What is a tool or technique that may be needed to perform this process?**
- A. Rolling Wave Planning
 - B. Project Management Information System
 - C. Meetings
 - D. Parametric Estimating
- 119. At a recent meeting on a project to rebrand a national restaurant chain, you discuss progress being made on identifying stakeholders. What is an activity that could be performed during that process?**
- A. Preparing a stakeholder engagement assessment matrix.
 - B. Identifying the information needs of stakeholders.
 - C. Conducting surveys of stakeholders to see if communication needs have been met.
 - D. Classifying stakeholders based on their level of authority.

- 120. You are soliciting advice from several experts, who have worked on similar projects, as you prepare the work breakdown structure (WBS). All of the following are purposes of this document except:**
- A. Articulate the components of work that will satisfy project objectives.
 - B. Subdivide the project work into more manageable components.
 - C. Provides detailed information, such as codes of account, about WBS components.
 - D. Provide a hierarchical structure for assigning costs to work packages.
- 121. A project manager is working with a team to make several adjustments to a manufacturing process to meet new legal requirements. At this point, she needs to identify who on the project is authorized to release confidential messages. Which document should be reviewed to find this information?**
- A. Project Charter
 - B. Stakeholder Engagement Plan
 - C. Stakeholder Register
 - D. Communications Management Plan
- 122. At this point on your project, you are in the process of performing qualitative risks analysis. Which of the following are tools or techniques of that process?**
- A. Interviews, Risk Probability & Impact Assessment, SWOT Analysis
 - B. Hierarchical Charts, Meetings, Contingent Response Strategies
 - C. Sensitivity Analysis, Decision Tree Analysis, Influence Diagrams
 - D. Risk Data Quality Assessment, Risk Categorization, Meetings
- 123. A project manager is leading an effort to build a lab that will be used to conduct medical research. During the project, she uses earned value analysis and determines that the CPI is 1.35 and the SPI is 1.25. What does this indicate?**
- A. The project is under budget and ahead of schedule.
 - B. The project is over budget and behind schedule.
 - C. The project is under budget and behind schedule.
 - D. The project is over budget and ahead of schedule.
- 124. On your project, 14 stakeholders have been identified. Based on this information, how many possible communication channels exist?**
- A. 98
 - B. 27
 - C. 196
 - D. 91
- 125. On a project to digitize a paper-based filing system at a law firm, the team spends time seeking authorization to begin expending resources to complete the project. In this case, what process is being performed?**
- A. Acquire Resources
 - B. Identify Stakeholders
 - C. Develop Project Charter
 - D. Develop Project Management Plan

- 126. A project to implement enterprise resource planning software within a government agency is underway. Currently, the team is performing the control scope process. In doing so, which of the following activities might they complete?**
- A. Determining which of the documented requirements will be completed as part of the project.
 - B. Reviewing verified deliverables with the sponsor to confirm they were completed properly.
 - C. Evaluating the completion of project deliverables and preventing scope creep.
 - D. Splitting the work of the project to make it easier to manage and monitor.
- 127. A project is underway to produce a new music album for a rock band known around the world. During the project, the team spends time putting risk response plans into effect. In this case, what process is being performed?**
- A. Plan Risks Responses
 - B. Identify Risks
 - C. Monitor Risks
 - D. Implement Risk Responses
- 128. Your project team has been tasked with closing a major shopping mall in suburban Chicago that has lost significant business. At this time, the team is performing quantitative risk analysis. In doing so, which of the following activities might they perform?**
- A. Performing sensitivity analysis and displaying the results using a tornado diagram.
 - B. Conducting root cause analysis to pinpoint the source of a problem.
 - C. Identifying high priority risks by evaluating their probability and impact.
 - D. Exploring options for addressing risks that have been previously identified.
- 129. A project manager is working with a team to construct a new soccer stadium. Early in the project, she would like to see a high-level explanation of the purpose and objectives for the project. Which document should be reviewed to find this information?**
- A. Project Charter
 - B. Statement of Work
 - C. Work Breakdown Structure
 - D. Benefits Management Plan
- 130. At this point on your project, you are in the process of estimating the labor and physical resources that are needed to complete the work. Which of the following are outputs of that process?**
- A. Assumption Log, Project Schedule Network Diagrams, Resource Requirements
 - B. Resource Breakdown Structure, Schedule Baseline, Duration Estimates
 - C. Milestone List, Resource Requirements, Duration Estimates
 - D. Resource Requirements, Basis of Estimates, Resource Breakdown Structure
- 131. On a given project; earned value (EV) is \$30,000; actual cost (AC) is \$35,000; and planned value (PV) is \$28,000. What is the cost performance index (CPI)?**
- A. 0.86
 - B. 1.16
 - C. 1.07
 - D. 0.93

132. **At a company that assembles mobile phones, it was determined that automating the screen testing process could cut direct labor costs by \$2,000,000 annually, so a project was initiated to do so. During the project, the team spends time performing project work (as defined in the plan) and implementing approved changes. What is an output from that process?**
- A. Accepted Deliverables
 - B. Work Performance Data
 - C. Approved Change Requests
 - D. Meetings
133. **At a recent meeting on a project to identify and deploy a new inventory management tool, you inform your stakeholders that you are in the process of controlling procurements. What is an activity that could be performed during that process?**
- A. Confirming that payments are made to sellers as outlined in the terms of the contract.
 - B. Preparing a request for information to get feedback from potential vendors.
 - C. Defining the portion of scope that will be completed by outside vendors.
 - D. Using advertisements to expand the pool of interested vendors.
134. **At this point on your project, you are in the process of planning resource management. This involves documenting how you will estimate, acquire, and manage the labor and physical resources that will be needed. Which of the following are tools or techniques of that process?**
- A. Hierarchal Charts, Responsibility Matrix, Organizational Theory
 - B. Pre-Assignment, Text-Oriented Formats, Meetings
 - C. Colocation, Expert Judgment, Conflict Management
 - D. Organizational Theory, Virtual Teams, Negotiation
135. **A technology company was recently acquired so they are undertaking a project to transition payroll systems. At various points during the project, the team spends time monitoring project costs and carefully managing changes to the cost baseline. What is an output from that particular process?**
- A. Work Performance Data
 - B. Approved Change Requests
 - C. To-Complete Performance Index
 - D. Work Performance Information
136. **You have just been assigned to lead a project that is already underway. The objective is to develop a web application that tracks versions of computer code. At this time, the manage team process is being performed. In doing so, which of the following activities might be completed?**
- A. Arranging for key project team members to be at the same site near critical milestones
 - B. Providing constructive feedback to team members.
 - C. Ensuring that assigned resources are available as originally planned.
 - D. Working with functional managers to assign the appropriate resources to project work.

137. **A project has been funded by a foreign country to install several water pumps in Sub-Saharan Africa. The goal is to increase the availability of clean water. During the project, the team spends time documenting the procurement method and identifying potential sellers. Which of the following is not an output from that process?**
- A. Source Selection Criteria
 - B. Bid Documents
 - C. Agreements
 - D. Independent Cost Estimates
138. **Which of the following is not true about adaptive life cycles?**
- A. Deliveries, which include subsets of the overall product, occur frequently
 - B. Key stakeholders are involved at specific milestones
 - C. Change is incorporated in real-time during project delivery
 - D. It is designed to be responsive to high levels of change
139. **All of the following are true about fixed price incentive fee (FPIF) contracts except:**
- A. Incentives are awarded typically for meeting cost, schedule, or performance targets.
 - B. The price is set at the start of the contract.
 - C. Bonuses can be given if certain predetermined objectives are achieved.
 - D. The seller is reimbursed for all allowable expenses.
140. **A project manager is working with a team to design a new video game. At this point, she needs to determine whether or not independent estimates will be needed prior to requesting and purchasing services from vendors that will support the project. Which document should be reviewed to find this information?**
- A. Cost Management Plan
 - B. Procurement Management Plan
 - C. Cost Baseline
 - D. Procurement Documents
141. **You are working for a city government and are leading a project to construct or improve several city parks. Currently, the team is performing the monitor communications process. In doing so, which of the following activities might they complete?**
- A. Conducting surveys of stakeholders to see if communication needs have been met.
 - B. Creating an ad-hoc report for a key project stakeholder.
 - C. Determining how information on the project will be distributed and stored.
 - D. Identifying the organizational process assets that may support or impact communication on the project.
142. **A project manager is working with a team to demolish and reconstruct and aging office building. During the project, she will need to several tenants who are upset that they will need to temporarily relocate their offices. Which document might outline strategies for working productively with these tenants?**
- A. Risk Register
 - B. Communication Model
 - C. Communications Management Plan
 - D. Stakeholder Engagement Plan

- 143. A project to design a new missile-defense system is underway. Currently, the team is performing the direct and manage project work process. In doing so, which of the following activities might they complete?**
- A. Evaluating project performance to determine if any preventive or corrective action is needed.
 - B. Adjusting start and finish dates of activities based on the availability of resources.
 - C. Allocating available resources (labor, material, and equipment) to activities in the project plan.
 - D. Determining if the project deliverables are complete, correct, and compliant with appropriate standards.
- 144. A project manager is working with a team to create and test a new television show with local audiences. At this point, she needs to understand how formal acceptance will be obtained on the completed project deliverables. Which document should be reviewed to find this information?**
- A. Test & Evaluation Documents
 - B. Project Charter
 - C. Scope Management Plan
 - D. Requirements Management Plan
- 145. On a given project; earned value (EV) is \$250,000; actual cost (AC) is \$215,000; and planned value (PV) is \$300,000. What is the schedule variance (SV)?**
- A. \$35,000
 - B. \$50,000
 - C. -\$85,000
 - D. -\$50,000
- 146. A project manager is preparing a stakeholder engagement plan for a project that includes installing a new procurement management system. Which of the following would not be included in that document?**
- A. A list of major requirements, expectations, and potential influence of various stakeholders
 - B. A list of suggestions for dealing with a stakeholder that has high power and high influence
 - C. A formal or informal set of plans for engaging specific stakeholders
 - D. Strategies for working productively with those who are impacted by the project
- 147. A project manager is overseeing the construction of a new restaurant. She receives feedback from experts on the project that customer seating can be installed one week after painting is complete. In this situation, which of the following processes were used?**
- A. Define Activities
 - B. Sequence Activities
 - C. Develop Schedule
 - D. Control Schedule
- 148. You are leading a project to build a new gym at a local college, and your current activities involve managing quality. Which of the following are tools or techniques of that process?**
- A. Process Analysis, Audits, Problem Solving
 - B. Benchmarking, Checklists, Test & Inspection Planning
 - C. Design for X, Quality Improvement Methods, Inspections
 - D. Data Analysis, Testing & Product Evaluations, Meetings

- 149. A project to investigate and respond to a cyberattack at a technology company is underway. Currently, the team is performing the determine budget process. In doing so, which of the following activities might they complete?**
- A. Making sure that expenses incurred on the project do not exceed the funding that was approved.
 - B. Calculating the cost performance needed to complete the project within the approved budget.
 - C. Setting the cost baseline that will be closely monitored and controlled throughout the project.
 - D. Reviewing strategic funding options, such as the possibility of using debt or equity to fund the project.
- 150. Hugo is collecting requirements on a project that involves building a custom home for a local business owner. While doing so, he realizes that lots of ideas have been proposed by the stakeholders, and he needs to classify those ideas into groups. Which tool or technique would accomplish this task?**
- A. Prototypes
 - B. Affinity Diagrams
 - C. Nominal Group Technique
 - D. Context Diagrams
- 151. Which of the following is not true about procurement management on agile projects?**
- A. It is ideal when buyers and sellers are collaborating together in a virtual environment.
 - B. Specific sellers may be used to extend the team.
 - C. Buyers and sellers can collaborate to share risk and rewards.
 - D. Large projects may use agile for some deliverables and a more stable approach for others.
- 152. While performing schedule management on your project, you need to determine the relationships between activities so that those activities are sequenced in the proper order. Which of the following is not true about activity sequencing?**
- A. It involves documenting the durations of activities.
 - B. It defines the logical sequence of work given certain constraints.
 - C. It helps build a realistic project schedule.
 - D. Every task (except for the first and last) should have both a predecessor and a successor.
- 153. On a construction project, it is a best practice to paint before you install appliances. This best describes which of the following dependencies?**
- A. Mandatory
 - B. Discretionary
 - C. External
 - D. Common
- 154. A project to construct a training environment for local firefighters has been funded and approved. However, the project manager has determined that they will need help from outside vendors to complete it. At this time, the scope is clearly defined, and the project manager does not expect any significant changes or the work to span multiple years. In this scenario, which type of contract should be utilized?**
- A. Firm Fixed Price (FFP)
 - B. Cost Plus Award Fee (CPAF)
 - C. Fixed Price with Economic Price Adjustment (FP-EPA)
 - D. Time & Materials (T&M)

- 155. On a project to build a stage in an urban park that will be used for concerts and other performances, the team spends time defining how to conduct risk management on the project. What is an input that may be needed to perform this process?**
- A. Risk Register
 - B. Enterprise Environmental Factors
 - C. Risk Management Plan
 - D. Risk Report
- 156. A commercial construction company that specializes in high-rise office buildings created a database to store project files from previous projects, such as completed project schedules from previous projects. This database would be considered which of the following?**
- A. An organizational process asset
 - B. A work performance report
 - C. An enterprise environmental factor
 - D. A lessons learned register
- 157. On an oil pipeline project, using a tool like Microsoft Project to create a “bottoms-up” schedule estimate would be included in which of the following skills sets in the PMI Talent Triangle®?**
- A. Project Management Information System
 - B. Leadership
 - C. Strategic and Business Management
 - D. Technical Project Management
- 158. A project to improve an insurance company's algorithm for calculating accident risk is ongoing. Currently, the team is performing the plan scope management process. In doing so, which of the following activities might they complete?**
- A. Determining how the project work; which will produce the desired products, services, or results; will be defined and controlled.
 - B. Determining which of the documented requirements will be completed as part of the project.
 - C. Meeting with stakeholders to capture their needs and to ensure they are measurable.
 - D. Splitting the work of the project to make it easier to manage and monitor.
- 159. A project manager has evaluated the status of the project schedule and calculated a forecasted estimate to completion. This forecast would be considered which of the following:**
- A. Work Performance Information
 - B. Schedule Baseline
 - C. Work Performance Reports
 - D. Work Performance Data
- 160. You were recently hired by a mining company to lead a high priority project. Before moving forward, you understand that the structure of your organization will influence your work – whether for good or bad. The mining company is considered a projectized organization. Which of the following is not true about that organizational type?**
- A. Project managers hold more authority than functional managers
 - B. Resource availability for projects is low
 - C. Project managers control the budget
 - D. Project managers have roles that are full-time

- 161. During planning phases, projects are baselined. After that, any proposed changes to those plans need to be carefully controlled and considered in the context of the overall project. This process is referred to as integrated change control. All of the following is true about this process except:**
- A. It occurs only at the end of the project.
 - B. It is the ultimate responsibility of external stakeholders.
 - C. It allows for changes to be captured using written or verbal formats.
 - D. It dictates that changes can be requested by any stakeholder.
- 162. Which of the following is not true about schedule management on agile projects?**
- A. It uses longer cycles to undertake work, review results, and adapt
 - B. The role of the project manager is the same as it would be on a waterfall project
 - C. Rapid, frequent feedback is collected on deliverables
 - D. An on-demand, pull-based scheduling system is used
- 163. In the middle of your project, you noticed that one of your sellers did not provide the materials that were needed by the deadline outlined in your agreement. You communicate this issue to the seller and remind them of the terms of the contract. In this scenario, what process was used?**
- A. Conduct Procurements
 - B. Control Schedule
 - C. Monitor & Control Project Work
 - D. Control Procurements
- 164. At this point on your project, you are in the process of planning how scope will be managed. Which of the following are inputs of that process?**
- A. Scope Management Plan, Project Charter, Business Documents
 - B. Quality Management Plan, Project Charter, Development Approach
 - C. Project Charter, Requirements Management Plan, Development Approach
 - D. Project Life Cycle Description, Stakeholder Engagement Plan, Quality Management Plan
- 165. You are soliciting advice from several experts, who have worked on similar projects, as you prepare the work breakdown structure (WBS). Which of the following is not a purpose of this document?**
- A. Articulate the components of work that will satisfy project objectives.
 - B. Subdivide the project work into more manageable components.
 - C. Outline the duration required to complete project activities.
 - D. Provide a hierarchical structure for assigning costs to work packages.
- 166. One of the stakeholders on the project approaches the project manager about a disagreement they had with the lead engineer. The stakeholder makes several accusations, and the project manager determines that they need to pause the discussion until they can gather more information about the encounter from the engineer. In this case, which conflict resolution technique was utilized?**
- A. Force/Direct
 - B. Withdraw/Avoid
 - C. Smooth/Accommodate
 - D. Compromise/Reconcile

- 167. A project manager has been assigned to lead an effort to design a new virtual reality headset. Early in the project; he identifies the processes, inputs, tools, and outputs that would be appropriate for his project. This identification process is known as which of the following?**
- A. Configuration Management
 - B. Project Tailoring
 - C. Deliverable Selection
 - D. Environmental Assessment
- 168. All of the following are true about cost plus incentive fee (CPIF) contracts except:**
- A. There may be price adjustments over time based on changes to certain financial indices.
 - B. The seller is reimbursed for all allowable expenses.
 - C. The seller is provided a bonus if certain predetermined objectives are achieved.
 - D. Incentives are awarded typically for meeting cost, schedule, or performance targets.
- 169. Dylan is estimating costs on a project that involves configuring inventory management software for a clothing retailer. He decides to use examples from similar projects, which were performed in the past, to generate the estimate. In this case, what estimating technique is being used?**
- A. Bottom-Up Estimating
 - B. Analogous Estimating
 - C. Parametric Estimating
 - D. Three-Point Estimating
- 170. A project to renovate an arena that hosts sporting events is ongoing. Currently, the team is performing the plan quality management process. In doing so, which of the following activities might they complete?**
- A. Determining if the deliverables are complete, correct, and compliant with appropriate standards.
 - B. Using audits to determine if activities on the project are conforming to organizational policies and then addresses gaps, if needed.
 - C. Determining appropriate investments in prevention and appraisal costs to avoid quality failures.
 - D. Using the six sigma methodology to identify process improvement opportunities.
- 171. On a project to launch a satellite that will explore and provide data about black holes, the team spends time documenting how scope will be defined and controlled. What is a tool or technique that may be needed to perform this process?**
- A. Voting
 - B. Benchmarking
 - C. Meetings
 - D. Decomposition
- 172. When considering adaptive projects, which of the following is not true?**
- A. If the project has high variability, a team with generalized specialists would be ideal
 - B. Project artifacts should not be broadly shared among stakeholders
 - C. Lightweight estimates are often used for a fast, high-level forecast
 - D. Detailed estimates are provided in a "just-in-time" fashion

173. **A project manager is working with a team to cleanup a hazardous waste site. During the project, she will need to work with several different parties that will be affected the project, including government officials and the local community, to ensure the project is successful. Which document outlines strategies for promoting the productive involvement of these parties?**
- A. Communication Styles Assessment
 - B. Stakeholder Register
 - C. Stakeholder Engagement Plan
 - D. Communications Management Plan
174. **A project manager is preparing a resource management plan for a project that includes building a new military training complex. Which of the following would not be included in that document?**
- A. An explanation of how the team will ensure adequate physical resources are available
 - B. A project organizational chart that shows reporting relationships for various team members
 - C. A description of how resources will be identified and acquired
 - D. An explanation of values, agreements, and operating guidelines for the team
175. **You are currently meeting with several qualified vendors, who may provide products or services needed to complete the project work, prior to their submission of proposals. It provides them an opportunity to ask questions about what is needed. This scenario reflects which of the following processes?**
- A. Conduct Procurements
 - B. Plan Procurement Management
 - C. Control Procurements
 - D. Plan Stakeholder Engagement
176. **Which of the following is not true about risk management on agile projects?**
- A. Risk and uncertainty is higher than on waterfall projects.
 - B. Risk is managed through frequent reviews of incremental work products.
 - C. Risk is identified, analyzed, and managed primarily at the beginning of the project.
 - D. Throughout the project, requirements may be reprioritized as risks are better understood.
177. **On a construction project, you must get a permit from the local government before you start construction. This best describes which of the following dependencies?**
- A. Common
 - B. Discretionary
 - C. Internal
 - D. External
178. **A project to decommission a naval base that has been left in disrepair has been funded and approved. However, the project manager has determined that they will need help from outside vendors to complete it. At this time, the scope is clearly defined, and the project manager does not expect any significant changes. The project is expected to span 10 years. In this scenario, which type of contract should be utilized?**
- A. Firm Fixed Price (FFP)
 - B. Fixed Price Incentive Fee (FPIF)
 - C. Fixed Price with Economic Price Adjustment (FP-EPA)
 - D. Cost Plus Award Fee (CPAF)

- 179. Your project team has been tasked with developing an e-commerce website. At this time, the team is planning risk responses. In doing so, which of the following activities might they perform?**
- A. Conducting root cause analysis to pinpoint the source of a problem.
 - B. Taking action to increase the likelihood that opportunities on the project occur.
 - C. Determining if new risks have surfaced on the project -- beyond those originally identified.
 - D. Determining which risks to transfer to a third party.
- 180. An aerospace company that sends small satellites into orbit has several projects that are funded by government customers. Prior to the start of those projects, the company had to show that they were compliant with several government standards. In this scenario, these marketplace conditions would be best classified as which of the following?**
- A. An organizational process asset
 - B. A procurement statement of work
 - C. An enterprise environmental factor
 - D. A marketplace condition
- 181. A company that develops software for banks has decided to setup a PMO. Their goal is to increase the likelihood that each of their projects is successful. They have determined that the PMO will require project teams to comply with a set of requirements. Which type of PMO would this represent?**
- A. Supportive
 - B. Controlling
 - C. Directive
 - D. Strategic
- 182. A project to procure and configure a tool for tracking sales leads at a security company is ongoing. Currently, the team is performing the validate scope process. In doing so, which of the following activities might they complete?**
- A. Determining which of the documented requirements will be completed as part of the project.
 - B. Reviewing verified deliverables with the sponsor to confirm they have been completed properly.
 - C. Evaluating the completion of project deliverables and preventing scope creep.
 - D. Splitting the work of the project to make it easier to manage and monitor.
- 183. You were recently hired by a shipping company to lead a high priority project. Before moving forward, you understand that the structure of your organization will influence your work -- whether for good or bad. The shipping company is considered a projectized organization. Which of the following is not true about that organizational type?**
- A. Project managers hold more authority than functional managers
 - B. Resource availability for projects is high
 - C. Project managers control less of the budget than functional managers
 - D. Project managers have project management staff that are full-time

- 184. Early in your project, you have determined that you will use surveys and interviews as a means to gather requirements from your stakeholders. All of the following would be true about those requirements or the requirements documentation except:**
- A. They describe what the customer or sponsor needs.
 - B. They describe how requirements meet business objectives.
 - C. They can be in written or verbal format.
 - D. The format of requirements documentation may vary from simple list to complicated matrices.
- 185. A project to expand a wind farm was undertaken in a coastal community to begin their shift to renewable energy. During the project, the team spends time performing quantitative analysis on the risks that have been identified. What is a tool or technique that may be needed to perform this process?**
- A. Sensitivity Analysis
 - B. Meetings
 - C. Risk Report
 - D. Risk Probability & Impact Assessment
- 186. A small company works closely with their customers, and they want to provide those customers with rapid feedback on their deliverables and make immediate adjustments, when needed. Which project lifecycle would be the best fit for their situation?**
- A. Predictive
 - B. Waterfall
 - C. Phased
 - D. Adaptive
- 187. You are a leading a project that involves planning and executing a cultural celebration. At this point on the project, you are in the process of closing a phase. Which of the following are inputs of that process?**
- A. Project Management Plan, Accepted Deliverables, Procurement Documentation
 - B. Accepted Deliverables, Approved Change Requests, Agreements
 - C. Business Documents, Change Requests, Deliverables
 - D. Procurement Documentation, Project Charter, Verified Deliverables
- 188. A project manager is working with a team to plan and host a major sporting event. At this point, she needs to understand what an acceptable range would be as cost estimates are prepared (e.g. +/-20%). Which document should be reviewed to find this information?**
- A. Cost Variance
 - B. Risk Management Plan
 - C. Cost Management Plan
 - D. Cost Baseline

- 189. A project to construct several wind turbines to begin a town's shift to renewable sources of energy is underway. Currently, the team is performing the develop schedule process. In doing so, which of the following activities might they complete?**
- A. Adjusting start and finish dates of activities based on the availability of resources.
 - B. Mapping the flow of activities to most efficiently complete the work given various constraints.
 - C. After comparing the schedule baseline to actual performance, shortening durations by applying more resources to project activities.
 - D. Evaluating project scope and required resources in order to approximate the number of work periods needed to complete the activities.
- 190. A project manager is preparing a risk management plan for a project that includes purchasing and configuring a fleet of buses for large city. Which of the following would not be included in that document?**
- A. The procedures for how management or contingency reserves will be used
 - B. A description of the format that will be used to report threat and opportunities on the project
 - C. The list of identified risks and potential risks responses
 - D. The funds that will be needed to respond to risks on the project
- 191. Agustin is estimating costs on a project that involves implementing software to allow an oil company to track and report on safety issues. In doing so, he decides to average optimistic, pessimistic, and most likely estimates. What estimating technique is being used in this scenario?**
- A. Bottom-Up Estimating
 - B. Analogous Estimating
 - C. Parametric Estimating
 - D. Three-Point Estimating
- 192. While performing schedule management on your project, you need to determine the relationships between activities so that those activities are sequenced in the proper order. Which of the following is not true about activity sequencing?**
- A. It involves documenting the durations of activities.
 - B. It defines the logical sequence of work given certain constraints.
 - C. It helps build a realistic project schedule.
 - D. Every task (except for the first and last) should have both a predecessor and a successor.
- 193. A project to host a golf tournament for a major charity has been funded and approved. However, the project manager has determined that they will need help from outside vendors to complete it. She also knows that significant changes to scope are likely and bonuses will be given if the vendors meet certain predefined objectives. In this scenario, which type of contract should be utilized?**
- A. Fixed Price Incentive Fee (FPIF)
 - B. Cost Plus Incentive Fee (CPIF)
 - C. Cost Plus Award Fee (CPAF)
 - D. Time & Materials (T&M)

- 194. You were recently hired by a car manufacturer to lead a strategic project. Before moving forward, you understand that the structure of the organization will influence your work. The car manufacturer is considered a functional organization. Which of the following is not true about that organizational type? All of the following are true about that organizational type except:**
- A. Functional managers hold more authority than project managers
 - B. Resource availability for projects is low
 - C. Project managers control less of the budgets than functional managers
 - D. Project managers have project management staff that are full-time
- 195. A project to configure a machine that will be used to automate several manufacturing steps is underway. Currently, the team is performing the monitor and control project work process. In doing so, which of the following activities might they complete?**
- A. Reviewing verified deliverables with the sponsor to confirm they have been completed properly.
 - B. Considering positive and negative experiences from previous projects to increase the likelihood of success on the current project.
 - C. Evaluating project performance to determine if any preventive or corrective action is needed.
 - D. While evaluating schedule performance, shortening durations by applying more resources to project activities.
- 196. As you work with your sponsor, you communicate how the structure of your organization influences the delivery of your project. Which of the following statements, if said, would not be true concerning organizational structures?**
- A. In a weak matrix, functional managers have more authority than project managers
 - B. In a strong matrix, the role of project manager is typically part-time
 - C. In a projectized organization, resource availability for projects is high
 - D. In a weak matrix organization, project management administrative staff are part-time
- 197. When you meet with a key stakeholder, you inform them that any change needs to be submitted through the change control board (CCB). All of the following are activities performed by the CCB except:**
- A. Reviews changes in an integrated manner.
 - B. Records and communicates the outcome of change review decisions.
 - C. Implements approved changes.
 - D. Approves or rejects changes.
- 198. During project planning, you have determined that you will use focus groups and prototypes as means to gather requirements from your stakeholders. Which of the following would not be true about those requirements or the requirements documentation?**
- A. They should be in written format.
 - B. They start at a summary level and get more detailed over time.
 - C. They must be clear, traceable, and acceptable to key stakeholders.
 - D. They do not need to be put under formal change control – unlike the scope baseline.

- 199. At this point on your project, you are in the process of determining the budget, which will include the cost baseline and management reserve. Which of the following are tools or techniques of that process?**
- A. Cost Aggregation, Funding Limit Reconciliation, Reserve Analysis
 - B. Financing, Expert Judgement, To-Complete Performance Index
 - C. Funding Limit Reconciliation, Cost of Quality, Parametric Estimating
 - D. Historical Information Review, Earned Value Analysis, Trend Analysis
- 200. A project to construct a church in an urban area is underway. Currently, the team is performing the develop project management plan process. In doing so, which of the following activities might they complete?**
- A. Allocating available resources (labor, material, and equipment) to activities in the project plan.
 - B. Considering positive and negative experiences from previous projects to increase the likelihood of success on the current project.
 - C. Developing a document that, when approved, will allow the project manager to use organizational resources to complete the project.
 - D. Coordinating and consolidating various plans that will be baselined and placed under formal change control procedures.

ANSWER KEY (BLANK)

| | | | | | | | |
|----|----|----|-----|-----|-----|-----|-----|
| 1 | 26 | 51 | 76 | 101 | 126 | 151 | 176 |
| 2 | 27 | 52 | 77 | 102 | 127 | 152 | 177 |
| 3 | 28 | 53 | 78 | 103 | 128 | 153 | 178 |
| 4 | 29 | 54 | 79 | 104 | 129 | 154 | 179 |
| 5 | 30 | 55 | 80 | 105 | 130 | 155 | 180 |
| 6 | 31 | 56 | 81 | 106 | 131 | 156 | 181 |
| 7 | 32 | 57 | 82 | 107 | 132 | 157 | 182 |
| 8 | 33 | 58 | 83 | 108 | 133 | 158 | 183 |
| 9 | 34 | 59 | 84 | 109 | 134 | 159 | 184 |
| 10 | 35 | 60 | 85 | 110 | 135 | 160 | 185 |
| 11 | 36 | 61 | 86 | 111 | 136 | 161 | 186 |
| 12 | 37 | 62 | 87 | 112 | 137 | 162 | 187 |
| 13 | 38 | 63 | 88 | 113 | 138 | 163 | 188 |
| 14 | 39 | 64 | 89 | 114 | 139 | 164 | 189 |
| 15 | 40 | 65 | 90 | 115 | 140 | 165 | 190 |
| 16 | 41 | 66 | 91 | 116 | 141 | 166 | 191 |
| 17 | 42 | 67 | 92 | 117 | 142 | 167 | 192 |
| 18 | 43 | 68 | 93 | 118 | 143 | 168 | 193 |
| 19 | 44 | 69 | 94 | 119 | 144 | 169 | 194 |
| 20 | 45 | 70 | 95 | 120 | 145 | 170 | 195 |
| 21 | 46 | 71 | 96 | 121 | 146 | 171 | 196 |
| 22 | 47 | 72 | 97 | 122 | 147 | 172 | 197 |
| 23 | 48 | 73 | 98 | 123 | 148 | 173 | 198 |
| 24 | 49 | 74 | 99 | 124 | 149 | 174 | 199 |
| 25 | 50 | 75 | 100 | 125 | 150 | 175 | 200 |

ANSWER KEY (COMPLETED)

| | | | | | | | | | | | | | | | |
|-----------|----------|-----------|----------|-----------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|
| 1 | B | 26 | B | 51 | C | 76 | D | 101 | C | 126 | C | 151 | A | 176 | C |
| 2 | A | 27 | C | 52 | B | 77 | D | 102 | D | 127 | D | 152 | A | 177 | D |
| 3 | C | 28 | D | 53 | D | 78 | C | 103 | A | 128 | A | 153 | B | 178 | C |
| 4 | D | 29 | B | 54 | C | 79 | B | 104 | B | 129 | A | 154 | A | 179 | D |
| 5 | A | 30 | B | 55 | B | 80 | D | 105 | C | 130 | D | 155 | B | 180 | C |
| 6 | C | 31 | A | 56 | D | 81 | A | 106 | D | 131 | A | 156 | A | 181 | B |
| 7 | A | 32 | D | 57 | C | 82 | D | 107 | C | 132 | B | 157 | D | 182 | B |
| 8 | D | 33 | B | 58 | A | 83 | A | 108 | B | 133 | A | 158 | A | 183 | C |
| 9 | B | 34 | C | 59 | B | 84 | D | 109 | D | 134 | A | 159 | A | 184 | C |
| 10 | B | 35 | D | 60 | A | 85 | C | 110 | B | 135 | D | 160 | B | 185 | A |
| 11 | A | 36 | C | 61 | C | 86 | A | 111 | A | 136 | B | 161 | D | 186 | D |
| 12 | C | 37 | B | 62 | D | 87 | D | 112 | A | 137 | C | 162 | A | 187 | A |
| 13 | C | 38 | A | 63 | C | 88 | A | 113 | C | 138 | B | 163 | D | 188 | C |
| 14 | D | 39 | C | 64 | A | 89 | D | 114 | D | 139 | D | 164 | B | 189 | A |
| 15 | A | 40 | C | 65 | B | 90 | B | 115 | B | 140 | B | 165 | C | 190 | C |
| 16 | D | 41 | A | 66 | D | 91 | C | 116 | C | 141 | A | 166 | B | 191 | D |
| 17 | D | 42 | B | 67 | A | 92 | D | 117 | D | 142 | D | 167 | B | 192 | A |
| 18 | C | 43 | C | 68 | B | 93 | B | 118 | B | 143 | C | 168 | A | 193 | B |
| 19 | B | 44 | B | 69 | B | 94 | C | 119 | D | 144 | C | 169 | B | 194 | D |
| 20 | D | 45 | D | 70 | D | 95 | B | 120 | C | 145 | D | 170 | C | 195 | C |
| 21 | A | 46 | A | 71 | C | 96 | C | 121 | D | 146 | A | 171 | C | 196 | B |
| 22 | B | 47 | B | 72 | B | 97 | C | 122 | D | 147 | B | 172 | B | 197 | C |
| 23 | B | 48 | A | 73 | A | 98 | D | 123 | A | 148 | A | 173 | C | 198 | D |
| 24 | D | 49 | D | 74 | D | 99 | A | 124 | D | 149 | C | 174 | D | 199 | A |
| 25 | A | 50 | A | 75 | A | 100 | A | 125 | C | 150 | B | 175 | A | 200 | D |