Questions on Project Management Fundamentals

1. Which of these is not one of the constraints of a project?
   a. Scope
   b. Resources
   c. Team
   d. Budget

2. Which of the following is not correct about initial phase of a project?
   a. The cost associated at the beginning of the project is highest.
   b. Stakeholders have maximum influence during this phase
   c. The highest uncertainty is at this stage of the project.
   d. All the above statements are correct.
   e.

Answers

1. c. Projects constraints are - Scope, Resources, Quality, Schedule, Budget and Risk
2. a. There is minimum requirement of personnel and hence minimum cost at the project initiation stage.
Questions on Project Communication Management

3. The project you are managing has nine stakeholders. How many channel of communications are there between these stakeholders?
   a. 9
   b. 8
   c. 45
   d. 36

4. Which of the following is not an example of formal communication?
   a. Contract
   b. email
   c. Project status report
   d. Status meeting

Answers

3. d. There will be (9*8)/2 channel of communication.
4. b. Communication via email is not considered a formal communication.

Questions on Project Cost Management

5. A Project with a total funding of $100,000 finished with a BAC value of $95,000. What term can BEST describe the difference of $5,000?
   A. Cost Variance
   B. Management Overhead
C. Management Contingency Reserve
D. Schedule Variance

6. If the Earned Value is equal to Actual Cost, it means:
   A. Project is on budget and on schedule
   B. Schedule Variance Index is 1
   C. There is no schedule variance
   D. There is no cost variance

Answers

5. C
6. D. EV – AC = Cost Variance. Therefore if EV = AC, the Cost Variance is zero (i.e. Project is on budget (but not necessarily on schedule, as there is not enough information on schedule variance)

Questions on Project Human Resources Management

7. Which of the following is the most important element of Project Management Plan that is useful in HR Planning process:
   A. Risk Management activities
   B. Quality Assurance activities
   C. Activity Resource requirements
   D. Budget Control activities
8. Which of the following types of Organizational Charts can be BEST used to track project costs:
   A. Hierarchical-type Organizational Chart
   B. Organizational Breakdown Structure
   C. Resource Breakdown Structure
   D. Responsibility Assignment Matrix

9. Which of the following is not true for a Responsibility Assignment Matrix (RAM):
   A. Defines what project team is responsible for each WBS component
   B. Defines what project member is responsible for each activity
   C. Text description of roles, responsibilities, authorities
   D. Defines all people associated with each activity

**Answers**
7. C. Activity Resource requirements is a primary input to HR Planning. It is used to determine the human resource needs of the project.

8. C. A RBS can be aligned with Organization’s accounting system

9. C.

**Questions on Project Quality Management**

10. Process Analysis is a function of:
    A. Performance Analysis
    B. Quality Metrics
    C. Process Improvement Plan
    D. Quality Improvement Plan

11. Root Cause Analysis relates to:
    A. Process Analysis
    B. Quality Audits
    C. Quality Control Measurements
    D. Performance Measurements
12. A planning phase for an engineering component generated 80 engineering drawings. The QA team randomly selected 8 drawings for inspection. This exercise can BEST be described as example of:
   A. Inspection
   B. **Statistical Sampling**
   C. Flowcharting
   D. Control Charting

**Answers**

10. C. A is incorrect as it relates to performing measurements to present performance. B is incorrect as it relates to the specific measurements that shall be performed on the project work in order to measure quality. C is correct because process analysis is simply execution of the steps outlined in Process Improvement Plan D is incorrect because Process Improvement Plan is not a part of Quality Improvement Plan (per PMBOK)

11. A. The option B is incorrect because a Quality Audit is to identify inefficiencies, non-compliance in project activities. It does not necessarily identify the root cause.

12. B. “Inspection” is what the team is doing on individual drawings; however, the entire exercise of random selection and inspecting a work product is known as “Statistical Sampling”

**Questions on Project Risk Management**

13. Andrew has joined as the Project Manager of a project. One of the project documents available to Andrew lists down all the risks in a hierarchical fashion. What is this document called?
   b. List of risks.
   c. Monte Carlo diagram.
   d. **Risk Breakdown Structure.**
14. During which stage of Risk planning are risks prioritized based on probability and impact?
   a. Identify Risks
   b. Plan Risk responses
   c. Perform Qualitative risk analysis
   d. Perform Quantitative risk analysis

**Answers**

13. d. Hierarchical description of risks is called Risk Breakdown structure.
14. c. Risk probability and impact are defined during Qualitative risk analysis.

**Questions on Project Time / Schedule Management**

15. Activity Definition is typically performed by which of the following:
   A. Project Manager who created the WBS
   B. Project Team Members responsible for the work package
   C. Project Officer
   D. Project Stakeholder

16. Which of the following does NOT generate changes to the Project documents:
   A. Define Activities
   B. Sequence Activities
   C. Estimate Activity Resources
   D. Estimate Activity Durations
17. Which of the following may generate a milestone list:
   A. Define Activities
   B. Sequence Activities
   C. Estimate Activity Resources
   D. Estimate Activity Durations

18. A schedule activity may begin 10 days before the predecessor activity finishes. This is an example of:
   A. Finish-to-Start
   B. Start-to-Finish
   C. Start-to-Start
   D. Finish-to-Finish

Answers

15. Answer: B PMBOK Pg. 134
16. Answer: A. Project document updates is an output to all processes in Project Time Management process area except Define Activities.
17. Answer: A
18. Answer: A

Questions on Project Procurement Management

19. Sam Consultancy is planning to buy ten desktops for $1500 each from a leading computer store. Which type of contract will get signed in this case?
   A. Purchase Order
   B. Cost plus Fee
   C. Fixed cost
   D. Time and Material
20. Alice is a Project Manager. She is coordinating a bidder conference to allow vendors to get clarification on the work that needs to be performed. Which phase of Project Management is in progress.
   A. Conduct Procurements
   B. Plan Procurements
   C. Control Procurements
   D. Close Procurements

21. The process of Control Procurements falls under which process group
   A. Planning
   B. Closing
   C. Monitoring and Control
   D. Executing

**Answers**

19. A. Purchase Order is used.
20. A. During the Conduct Procurements process, bidders can clarify their doubts using bidder conference.
21. C. Control procurement is part of Monitoring and Control process group.
22. Based on the PERT below and knowing that the activities A to F use the resources (persons) between brackets: A(5), B(8), C(8), D(2), E(6), F(7) e G(7). Build a diagram showing the resources used through time knowing that all the activities use their Early Start (0.75V)
22. The Project represented in the PERT below is to be finished in day 36. We know that all the activities start in Early Start.

Using this information, fill the table below.

<table>
<thead>
<tr>
<th></th>
<th>ES</th>
<th>EF</th>
<th>LS</th>
<th>LF</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10</td>
<td>16</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>B</td>
<td>10</td>
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<td>F</td>
<td>18</td>
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<tr>
<td>G</td>
<td>26</td>
<td>36</td>
<td>28</td>
<td>36</td>
</tr>
</tbody>
</table>
22. You have a penalty of 10.000 € per day if your Project is not ready in thirteen days. There is an extra profit of 1.000 € / day if you advance its closing date (if you reduce from thirteen days). The costs involved, predecessors, duration and crashing costs are printed in the table. (1.75v)

A. built a AOA PERT;

B. what is the final preferable length (how many days?) and c) what is the total cost of your solution? (explain what you do).

<table>
<thead>
<tr>
<th>Activity</th>
<th>Normal Duration</th>
<th>Cost Normal €</th>
<th>Maximum Crash time (Days)</th>
<th>Crash Cost €/day</th>
<th>Predecessor</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>1000</td>
<td>3</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>7</td>
<td>2000</td>
<td>4</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>5</td>
<td>1200</td>
<td>4</td>
<td>300</td>
<td>A</td>
</tr>
<tr>
<td>D</td>
<td>6</td>
<td>1100</td>
<td>5</td>
<td>500</td>
<td></td>
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<td>E</td>
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<td>4</td>
<td>200</td>
<td>3</td>
<td>100</td>
<td>F,G</td>
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<tr>
<td>H</td>
<td>3</td>
<td>100</td>
<td>1</td>
<td>50</td>
<td>D,E</td>
</tr>
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Initial Path lengths

<table>
<thead>
<tr>
<th>Initial Path lengths</th>
<th>Activities to crash</th>
<th>Days of crash</th>
<th>Cost</th>
<th>Total crash</th>
<th>Final path length</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-13-20</td>
<td>G</td>
<td>3</td>
<td>3*100=300</td>
<td>300</td>
<td>13-13-17</td>
</tr>
<tr>
<td>13-13-17</td>
<td>C</td>
<td>4</td>
<td>4*300</td>
<td>1200</td>
<td>13-13-13</td>
</tr>
</tbody>
</table>

Total cost = 8100 + 300 + 1200 = 9600