SUCCESSION TRAINING

BSB51415 Diploma of Project Management

Constraint Management

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Assessment Workbook 2

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Date	Summary of modifications made	Version
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ASSESSMENT WORKBOOK COVERSHEET

WORKBOOK:	Workbook 2
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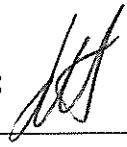
Please read the Candidate Declaration below and if you agree to the terms of the declaration sign and date in the space provided.

By submitting this work, I declare that:

- **I have been advised of the assessment requirements, have been made aware of my rights and responsibilities as an assessment candidate, and choose to be assessed at this time.**
- **I am aware that there is a limit to the number of submissions that I can make for each assessment and I am submitting all documents required to complete this Assessment Workbook.**
- **I have organised and named the files I am submitting according to the instructions provided and I am aware that my assessor will not assess work that cannot be clearly identified and may request the work be resubmitted according to the correct process.**
- **This work is my own and contains no material written by another person except where due reference is made. I am aware that a false declaration may lead to the withdrawal of a qualification or statement of attainment.**
- **I am aware that there is a policy of checking the validity of qualifications that I submit as evidence as well as the qualifications/evidence of parties who verify my performance or observable skills. I give my consent to contact these parties for verification purposes.**

Name : Sophie Scott **Signature:**  **Date:** 22/05/20

WRITTEN QUESTIONS

Part 1 – Project Scope

1. Which of the following are project initiation documentation required at the start of the project?

   Select all that apply.

☐	a. Communications log
☒	b. Project plan
☒	c. Work Breakdown Structure (WBS)
☒	d. Gantt Chart
☒	e. Project charter
☐	f. Risk management

2. Which of the following are components of a project scope-management plan?

Select all that apply.

☒	a. Project deliverables
☐	b. Project staff assignments
☒	c. Change request
☒	d. Project justification
☒	e. Product description
☐	f. Performance reports
☒	g. Project objectives
☐	h. Project funding requirements
☐	i. Quality metrics
☒	j. Budget forecasts

3. In your own words, discuss how project time and cost affect the project scope. Do not exceed 100 words.

The Project Scope is defined as the 'deliverable' of the project. The bigger the project scope the longer it takes to build. If workers are required for a longer amount of time this will increase the cost.

4. Which of the following are events or problem areas relating to project scope that could trigger the need for a formal change request?

Select all that apply.

☒	a.	The deliverables may not meet quality requirements.
☐	b.	Grammatical and typo errors are found in the project initiation documents.
☒	c.	The deliverables may not be what the client wanted, even though they were covered in the project plan.
☐	d.	The stakeholder considers the change request and advises the project manager.
☒	e.	Observance of non-working holidays affecting project time.
☒	f.	Additional quality requirements (such as new legislation or changes in standards) will render the deliverables non-compliant.
☒	g.	Failure of equipment needed to produce the deliverables.
☐	h.	Missing documentations in the project's information system.
☒	i.	Raw materials are no longer available.
☐	j.	Supplier or contractor closing business.

5. Which of the following are procedures that typically must be followed under change control processes?

Select all that apply.

☐	a.	Project manager seeks advice from supervisor regarding changes in cost.
☒	b.	Project manager assigns a project team member to recalculate for the critical path.
☒	c.	Project manager provides the change request to the appropriate stakeholder for approval.
☒	d.	The stakeholder considers the change request and advises the project manager.
☒	e.	The project manager updates the project plan and other documentation where required.
☐	f.	Project manager drafts the change request.
☐	g.	Project manager delegates the authority to the project team members in advising other stakeholders of the changes.
☒	h.	The project manager advises relevant stakeholders (sponsor, team members, etc.) of the changes.
☒	i.	Details of the proposed change to be communicated to the project manager.
☐	j.	The project sponsor and owner may automatically terminate the project contract.

6. The following are methods of measuring work outcomes and progress against plans. Match each method to its correct description.

Write the letters that correspond to your answers in the spaces provided.

	Method	Description
C	Units completed	a. Also known as the 'steps' method, this is used for projects that involve subtasks that need to be completed in an orderly fashion.
A	Incremental milestones	b. In this method, tasks that are being calculated tend to occur over a longer duration time and include multiple subtasks, where subtasks can have different units of measurements.
D	Start / finish	c. This method is used when project tasks are done repeatedly. Assuming that each task is completed at the same amount of time, resources and effort, each task is counted and totalled.
B	Weighted or equivalent units	d. This method is used to determine the percentage of the work completed and the percentage of the work that is still yet to be completed.

7. Which of the following are activities involved in decomposition of the total work project?

Select all that apply.

☐	a.	Summarise project tasks in the form of a written report.
☒	b.	Identify and analyse the deliverables and related work.
☒	c.	Structure and organise the work breakdown structure (WBS).
☐	d.	Arrange the smallest project tasks to form an aggregate representation of the total project task
☒	e.	Decompose the upper work breakdown structure (WBS) levels into lower level detailed components.
☐	f.	Calculate duration and resource effort for each project task.
☒	g.	Develop and assign identification codes to the WBS components.
☐	h.	Inspect whether work and deliverables meet requirements and product acceptance criteria.
☐	i.	List resources required for each project task.
☒	j.	Verify that the degree of decomposition of the work is necessary and sufficient.

8. List three (3) ways in which the Work Breakdown Structure (WBS) can be created.

a. Phases of the project cycle
b. Using major deliverables
c. Using sub-projects

9. The following are some problem areas in scope management. In your own words, briefly discuss each problem area.

Do not exceed 100 words for each discussion.

Problem areas	Discussion
Scope creep	The scope creep is where small incremental changes to the scope occur. If there is not an efficient change management plan and changes are made without the knowledge of the project manager this can then cause issues between what is on the project plan to be delivered and what is actually delivered.
Sponsor / project owner approval	A problem area could occur if the sponsor/owner change the project scope or budget therefore the project plan needs to be amended which could take time, thus drawing out the length of the project.
Project team accountability	If the project team is not efficient or work well together this could slow down a project. If a team is not accountable for their work and things need to be re-done this can affect the time and cost of a project.

10. In your own words, discuss the significance of scope management.

Do not exceed 150 words.

Effective scope management is significant so that the project is run smoothly. Scope management ensures all project team members are clear on the scope of the project and everyone understands the deliverable. It can help avoid problems that the project could potentially face with unexcepted changes. Scope management establishes control processes to address factors that may result in project change during the project life-cycle.

11. The *PMBOK Guide* outlines the following processes in project scope management. List one (1) tool or technique used in each process.

Project Scope Management	Tool or technique
Collect requirements	Focus groups
Define scope	Facilitated workshops
Create WBS	Decomposition
Verify scope	Inspection
Control scope	Variance analysis

12. Consider the roles and responsibilities of the project manager in project planning. List five (5) roles of the project manager in project planning and list at least one responsibility for each of these roles.

Roles (list five (5))	Responsibilities (List at least one (1) for each role)
Understanding the Project	The project manager needs to understand the key stake holders' expectations and deliverables of the project
Scope Management	The project manager is to ensure each work package is able to meet all requirements to deliver the project
Time Management	The project manager is to ensure the project is running on schedule
Cost Management	The project manager is to be responsible to meets budgets requirements
Quality Management	The project manager is to define what good quality means to the project and how the project team will deliver

Part 2 – Project Time

1. The following are estimation tools and techniques used in determining duration. Match each tool and technique to its correct description.

   Write the letters that correspond to your answers in the spaces provided.

	Estimation tools and techniques	Description
B	Analogous estimating	a. This technique uses a statistical relationship between historical data and other variables to calculate an estimate for activity duration.
A	Parametric estimating	b. This uses parameters such as duration, budget size, weight, and complexity, from a previous, similar project, as the basis for estimating the same parameter to measure for a future project. This technique relies on the actual duration of previous, similar projects as the basis for estimating the duration of the current project.
E	Three-point estimating	c. This is guided by historical information. It provides duration estimate information or recommended maximum activity durations from prior similar projects. This can also be used to determine whether to combine methods of estimating and how to reconcile differences between them.
C	Expert judgement estimating	d. Contingencies are accounted for into the overall project schedule to account for schedule uncertainties.
D	Reserve analysis	e. This technique uses a mathematical formula to determine a weighted average of estimates. It uses the formula: $Te = \frac{To + 4 \times Tm + Tp}{6}$.

2. The following are estimation tools techniques used in determining activity resource. Match each to its correct description.

Write the letters that correspond to your answers in the spaces provided.

	Estimation tools and techniques	Description
D	Expert judgment	a. Several companies or organisations routinely distribute updated production rates and unit costs of resources for an extensive array of labour trades, material, and equipment for different countries and geographical locations within countries.
E	Alternative analysis	b. In this technique, when an activity cannot be estimated with a reasonable degree of confidence, the work within the activity is decomposed into more detail. The resource needs are estimated. These estimates are then aggregated into a total quantity for each of the activity's resources.
A	Published estimating data	c. This tool has the capability to help plan, organise, and manage resource pools and develop resource estimates.
B	Bottom-Up estimating	d. This technique is often required to assess the resource-related inputs to this process. Any group or person specialised with knowledge in resource planning and estimating can provide such expertise.
C	Project management software	e. These include using various levels of resource capability or skills, different, size or type of machines, different tools (hand versus automated), and make-or-buy regarding the resource.

3. In identifying the critical path, the following parameters need to be determined for each task. Discuss each parameter.

Do not exceed fifty (50) words for each discussion.

Parameter	Discussion
ES	The earliest time at which the task can start, given that any predecessor tasks must be completed first.
EF	The earliest start time for the task plus the time required to complete the task.
LF	The latest time at which the task can be completed without delaying the project.
LS	The latest finish time minus the time required to complete the task.

4. Which of the following statements accurately explain the process of developing the project schedule, including the schedule baseline?

Select all that apply.

☒	a.	Developing the schedule is the process of analysing activity sequences, durations, resource, requirements, and schedule constraints to create the project schedule.
☒	b.	The project schedule and schedule baseline are developed or established using the activity lists, activity attributes, project scope statement as the bases.
☒	c.	Entering the activities, durations, and resources into the scheduling tool generates the schedule baseline.
☐	d.	Tools and techniques used in developing the project schedule and schedule baseline include decomposition of the total project work.
☐	e.	Developing the schedule baseline starts and ends in the planning phase of the project.

5. Schedule control is the process of monitoring the status of the project to update project progress and mange changes to the schedule baseline.

Which of the following are processes that are involved in schedule control?

Select all that apply.

☒	a.	Determining the current status of the project schedule.
☐	b.	Defining activities or specific actions to be performed to produce project deliverables
☒	c.	Influencing the factors that create schedule changes
☐	d.	Decomposing total project work into its lowest levels.
☒	e.	Determining that the project schedule has changed
☐	f.	Estimating duration and resource effort for the project.
☒	g.	Managing the actual changes as they occur.

6. Consider the methods used in project time management.
   a. In your own words, discuss the application/use of the Gantt Chart. Do not exceed fifty (50) words.
   b. List three (3) project data generated from the Gantt Chart.
   c. List three (2) limitations of the Gantt Chart.

a. A Gantt chart is a visual view of tasks scheduled over time. They are used for planning projects and are a useful way of showing what work is scheduled to be done on a specific day. They also show the start and end dates of a project in one simple view.

b. See below list of 3 descriptions of data generated from the Gantt Chart.

- To provide a visual outline of the project schedule.
- To show the start and end date of the project, its phases, stages and individual tasks.
- To show the progress of the project

c. See below list of 2 limitations of the Gantt Chart.

- The format is not common, so the project manager often needs to PDF the Gantt chart to distribute it.
- The area of the Gantt chart page is very large and often difficult to print.

7. Consider the methods used in project time management.
   a. In your own words, discuss the application/use of the Critical Path Method. Do not exceed fifty (50) words.
   b. List three (3) project data generated from the Critical Path Method.
   c. Discuss the limitation of the Critical Path Method. Do not exceed fifty (50) words.

a. The critical path method calculates the earliest and latest possible start and finish times for project activities, and it estimates the dependencies among them to create a schedule of critical activities and dates.

b. 1. Parameters of each task: Earliest Start, Earliest Finish, Latest Start, Latest Finish. 2. Activities on the critical path. 3. Critical elements in the project

c. The critical path method relies on estimates for the expected duration of activities, if these are inaccurate the whole process may be invalidated.

8. The following are tools and techniques used in project scheduling. Match each tool and technique to its correct description.

Write the letters that correspond to your answers in the spaces provided.

	Project scheduling tools and techniques	Description
B	Schedule network analysis	a. This is the process of looking at all of the activities that must be completed, and calculating the 'best line' – or critical path – to take so that you'll complete the project in the minimum amount of time. The method calculates the earliest and latest possible start and finish times for project activities, and it estimates the dependencies among them to create a schedule of critical activities and dates.
A	Critical Path Analysis	b. This is a graphic representation of the project's activities, the time it takes to complete them, and the sequence in which they must be done. Project management software is typically used to create these analyses. Common formats for this include Gantt Charts and PERT Charts
D	Schedule compression	c. They expedite the scheduling process by generating start and finish dates based on the inputs of activities, network diagrams, resources, and activity durations.
C	Automated scheduling tools	d. This tool helps shorten the total duration of a project by decreasing the time allotted for certain activities. It's done so that you can meet time constraints, and still keep the original scope of the project.

9. Which of the following statements accurately explain the work breakdown structure (WBS) including its application in project schedules?

Select all that apply.

☒	a.	Work breakdown structure (WBS) is the subdivision of project deliverables and project work into smaller, more manageable components.
☐	b.	The work breakdown structure (WBS) identifies project personnel who are responsible for each project task.
☒	c.	Work breakdown structure (WBS) helps define activities of the project which provide the basis for estimating, scheduling, executing, and monitoring and controlling the project work.
☐	d.	The work breakdown structure (WBS) is used to represent the full project scope of the project.
☐	e.	The work breakdown structure provides the relationships among all components of the project and the project deliverables.
☒	f.	The work breakdown structure (WBS) is used as the basis for the scope baseline which is used in identifying activities or specific actions to be performed to produce of the project deliverables.
☐	g.	Project work at lowest levels are not included in the work breakdown structure (WBS)

Part 3 – Project Cost

1. The following are processes involved in project cost management including budgeting the cost of the project. In your own words, discuss each.

   Do not exceed fifty (50) words for each discussion.

Estimating costs	Estimating costs is when an approximation for the costs for the project is developed. These are predictions on the expense associated with each point of the project. The estimations include costing alternatives.
Determine budget	The determine budget is done by collecting the estimated costs of each individual activity or work package to create an overall project budget that is inclusive of every aspect of the project. The Determine budget does not include management reserves.
Control cost	Control cost is the process of assessing the costs of each area of the project and updating the budget and managing changes that may occur. This includes recording actual cost of each aspect spent.

2. The following are different tools and techniques used in cost management. Match each to its correct description.

Write the letters that correspond in the spaces provided.

	Strategy	Description
B	Analogous estimating	a. This is used to establish both the contingency reserves and the management reserves for the project with regards to cost.
C	Parametric estimating	b. This strategy uses the values of costings from a previous, similar project as the basis for estimating the same parameter or measure for a current project. This is used when the current project is similar to a previous one in terms of defined parameters.
E	Cost aggregation	c. This uses a statistical relationship between historical data and other variables to calculate and estimate for cost. This technique is used to produce higher levels of accuracy depending upon the sophistication and underlying data built into the model. Estimates made through this project can be applied to the whole project or to segments of a project.
A	Reserve analysis	d. These are used to develop mathematical models to predict total project costs.
D	Historical relationships	e. Cost estimates are combined by work packages in accordance with the Work Breakdown Structure. The work package cost estimates are then combined for the higher component levels of the WBS and ultimately for the entire project.
G	Earned value management	f. In this technique cost performance measurements are used to assess the magnitude of variation to the original cost baseline.

F	Variance analysis	g. This is commonly used as a performance measurement. It integrates project scope, cost, and schedule measure to help the project management team asses and measure project performance and progress.

3. List four (4) processes which are followed in monitoring the project costs against outcomes to ensure that additional expenses are not incurred.

a. Using an effective tool for managing the project finances (could be a spreadsheet or financial management software package).

b. Sending invoices on a regular (or monthly) basis.

c. Paying invoices promptly.

d. Checking incoming invoices against contracts, quotes, agreements, etc.

4. You are appointed as one of the Project Managers of Bigger than Big Corporation. As one of the Project Managers, it is essential that you have a full understanding of the organisation's policies and procedures relevant managing projects within Bigger than Big.

   Review Bigger than Big Corporation's Project Management Policy and Procedures *(username: cstclearner password: CstcPty@123).*

   a. In your own words, discuss the organisation's Project Management Policy, including its background, purpose, and its scope.
   b. In your own words, discuss the organisation's Project Management Procedures including their purpose and scope.
   c. In your own words, list and discuss the Project Phases prescribed in the organisation's Project Management Procedures.

   Do not exceed 100 words for each discussion

a. A project management policy is used as guidelines on how to manage principles responsibilities in relation to the management of the cooperation. The purpose of the policy is to establish a companywide approach to the initiation, planning, implementation, and closure of projects. By having this policy in place, it allows the way projects are managed. The scope is designed to outline the shared objective of each organization involved and how the Bigger than Big Corporation project needs are accommodated.

b. The project management policy's purpose is to outline the project management policy and project management lifecycle by articulating the processes to be carried out throughout the project lifecycle to ensure the effective management. The scope of the project management policy clearly identifies the responsibilities of Bigger than Big Corporation throughout each phase of the project and management methodologies to be used.

c. The first phase is the Pre-Initiate Phase. This identifies the need for the project and establishes the foundation for example determining the size.

The second phase is the Initiate Phase. This process determines how the project will be executed and identifies the work that will be required to achieve the project deliverables.

Following the Initiate Phase is the Plan Phase. This phase is a more in-depth investigation into how the project will be conducted including the project schedule, budget, risk management reports.

The fourth stage is the Implementation Phase which focuses on determining how the project will be delivered.

The final phase is the closing phase. It involves the handover of the project.

Part 4 – Project Quality

1. In your own words, discuss each of the following key concepts in Quality Management.

   Do not exceed 100 words for each discussion.

Key Concepts in Quality Management	Discussion
Customer satisfaction	Customer satisfaction is a gauge of how appeased the customer/s are with the project deliverables they have received. A customer will consider the product of the project to be poor if it does not meet their expectations. As a result, it is integral to the success of a project to ensure the customers expectations are met. This does involve to some degree the management of the customers' expectations as a critical item which must be handled well in order for the project to be classed as a success.
Prevention over inspection	Identifying issues with items that may arise prior to the works being executed, as opposed to failure to meet quality standards after the works have been completed has a proportional effect on costs. Effective due diligence which is made prior to project commencement can be rectified for less cost than re-works and rectification.
Continuous improvement	Issues that occur on a project can be identified as topics for improvement in order to achieve an ongoing enhanced product delivery to maintain customer satisfaction. Issues may be simple improvements to efficiency related activities, or tweaking products to suit positive customer feedback or can be major re-hauls on how the project is delivered. Time, cost and quality are all items which need to be identified as places which can have continuous improvement.

2. In your own words, discuss the difference between Quality Assurance and Quality Control.

   Do not exceed 100 words.

The difference between Quality Assurance and Quality Control is that Quality Control is product oriented while Quality Assurance is process oriented.

Quality Assurance is focused on planning, documenting and following set guidelines put in place at the beginning of the project to ensure good quality work is applied throughout the project.

Quality Control on the other hand includes tasks designed to determine the level of quality. For example, concrete being tested to make sure it reaches the correct strength.

3. The following are standards that could apply in various projects. In your own words, discuss each standard. Do not exceed fifty (50) words for each discussion.

People standards	All employees that are working on the project must meet the required standards, whether its qualifications or experience. For Example, if a roller driver came to site to carry out civil works, they would need to have the appropriate qualification (ticket to drive the roller).
Process standards	All projects have process standards. These are the standards for the processes in delivering the project, requiring quality assurance auditing. For example, on a construction site when handover to the client is ready processes are in place to ensure the transfer runs smoothly.
Product / service standards	These look at the end product, involving quality control standards. For example, a project where the earthquake design needs to be constructed in accordance with standard AS1170.

4. The following are quality assurance and control methods, techniques and tools. Match each to its correct description.

Write the letters that correspond to your answers in the spaces provided.

	Methods, tools, techniques	Description
H	Benchmarking standards	a. This is a distribution of dots comparing two variables. If the two variables are completely independent, you would expect the dots to be evenly distributed randomly across the graph. If there is a strong relationship though, the graph will show a straight line or a mathematical curve going through it.
G	Brainstorming sessions	b. These are graphical representations showing a visual impression of the distribution of data. Usually it shows the frequency up the Y axis of the bar graph and the measuring variable along the X axis.
D	Control charts	c. It is a graph where the X axis is time dependent. This allows you to look for time-based cycles in processes.
F	Flowcharts	d. These are also known as Shewhart charts or process-behaviour charts. These charts are used to statistically measure the quality characteristics of a process are under control. This is based on a statistical analysis where a centre line is drawn for the mean of the output, then an upper control limit and a lower control limit is created either side of the centre line. The process is then measured over a period of time and the results plotted on the graph. Once the graph has been created, it can be analysed to test the stability of the process and also any cycles of errors.
B	Histograms	e. It is very similar to a histogram, but it includes a line over the graph indicating the cumulative distribution of the results.

E	Pareto charts	f. A diagram that represents a process. It shows the steps visually as a series of boxes with arrows in between them showing the workflow. Rectangular boxes represent tasks and diamond shaped boxes represent decision points, where the flow can split into two or more directions.
C	Run charts	g. It occurs when a group meets and is presented with a scenario where they creatively come up with a range of solutions.
A	Scatter grams	h. These may be dictated to by legislation through Federal, State or Local Government regulations, and may be dictated by industry bodies.

5. List five (5) responsibilities of the project manager in quality management.

a. Determining the quality standards for the project deliverables.

b. Determining the quality standards for the project processes.

c. Documenting all the required standards in the project plan.

d. Ensuring all organizational quality requirements are met for the delivery of the project.

e. Conducting, or coordinating, project audits.

6. The following are methods used in managing continuous improvement. In your own words, discuss each method.

   Do not exceed fifty (50) words for each discussion.

Six Sigma	The method Six Sigma is a set of techniques aimed to improve business procedures by greatly reducing the chance that an error or defect will occur.
Lean Six Sigma	The method Lean Six Sigma is a method that relies on a collective team effort to improve performance by systematically removing waste and reducing change.
Total Quality Management	The Total Quality Management method is a system based on the notion that every member of staff must be committed to preserving high standards of work.

CASE STUDY

Instructions to Student

These case studies are hypothetical situations which will not require you to have access to a workplace, although your past and present workplace experiences may help with the responses you provide. You will be expected to encounter similar situations to these in future as you work in a project team environment.

In the real world you are likely to encounter the situation where you enter a project, taking over from another project manager. The documentation that is handed over to you is not necessarily up to scratch, and there could be serious issues with the project. This assessment captures that real-life scenario.

The case studies are the first part of dealing with "multiple complex projects" required in all the units of this subject. The other assessment covering this requirement is the practical assessment. When you have completed the case studies you will be able to commence the practical assessment which covers the generic skills needed to function as an effective project team member. This assessment on the other hand covers the application of the underpinning knowledge and background theory.

Introduction

You have been appointed as a project management consultant to the project team at Awesome Landscapes Pty Ltd. Specifically, you are required to provide independent advice on seeing their current project throughout its entire lifecycle.

You have already provided advice to Awesome Landscapes in the previous workbook.

Today is 24 July 20xx. The project will shortly progress into the implementation stage. You have now been provided with up-to-date project documentation below, including an updated Project Plan. The project steering committee have reviewed the Project Plan, but they wish to have you conduct an independent evaluation of the project prior to signing it off.

As part of your consultancy services, you will be assisting the team in addressing issues around project constraints by answering the questions that follow this scenario.

The documents you need to complete the succeeding tasks can be accessed through the following links:

Project Charter version 2 (.pdf)

Project Plan version 2 (.pdf)

Project Gantt Chart version 2 (.mpp)

Project Gantt Chart version 2 (.pdf)

Project Network Diagram version 2 (.pdf)

(username: cstclearner password: CstcPty@123)

Note: These documents were generated in year 2016. For the purpose of this assessment, refer to '2016' as the current year and '2017' as the succeeding year.

1. List the three (3) project deliverables in Phase 1.

a. Removal of vegetation in areas being cleared and replanting/maintaining the plants for replanting in stage in stage 3.
b. Access roads through the existing forest for builders to access each building site.
c. Retaining walls to provide stability around the buildings. Includes three additional retaining walls as per updated site plan.

2. Discuss the project constraints in terms of scope, time, cost, and quality.

Scope	The scope of the project has become bigger therefore increasing the size of the project.
Time	Due to the changes of the scope an additional week has been added to the length of the project.
Cost	By adding additional retaining walls has resulted in an increased cost which will has affected the budget.
Quality	The time and cost impact may affect the quality of the work as more has to be achieved within time and budget constraints.

3. Review the project schedule as set out in the Project Plan and the Gantt Chart Arrange the following tasks in the proper sequence as dictated in Phase 3 of the critical path.

Write 1 – 12 in the spaces provided; where 1 go first and 12 go last.

8	Remove weeds
11	Plant additional plants
2	Move gravel to car park
1	Expand car park
12	Remove greenhouses
9	Plant plants from greenhouses
3	Seal car park
6	Soil preparation

7	Add boulders
5	Construct stone paving pathway
10	Purchase additional plants
4	Landscape over old access roads

4. Review the Project Plan. The change request has outlined one change in the scope of the project.
   a. What is the change in scope?
   b. How does this change in scope impact the overall duration of the project?
   c. How does this change in scope impact the quality aspect of the project?

a. Three new retaining walls added due to a change in the construction plan requiring more chalets to be built.
b. The change is scope impacts the overall duration of the project as the contactors require more time to complete additional works.
c. The change in scope could impact the quality of works if the contractors are under pressure to complete works in the correct amount of time.

5. Why does the change request only list one change in project cost, yet when you look at the financial tables the costs seem to have increased in numerous parts of the project not even related to the item in the change request?

   Do not exceed 100 words.

Although only one change has been made in the change request form, this change impacts several other areas in the project. For example, by adding more retaining walls has impacted the length of the gravel road needed to access each new chalet thus the amount of gravel needed to create the road has increased. This has impacted the budget for the gravel.

Another area impacted is the budget for the soil. This is because the more walls to be built equates to more soil required to be compacted.

6. Who is responsible for working out these impacts of what initially seemed to be such a simple change, and ensuring all affected stakeholders understand the impact of such a change?

As the Project Manager Sam Ng is responsible for working out the impact. Sam is required to update all relevant documentation eg project plan and communicate all changes to the affected stakeholders.

7. Access and review the Gantt Chart version 2.
   a. What important tasks are not included in the project Gantt Chart?
   b. Discuss why these tasks must be included in the Gantt Chart? Keep your discussion within 100 – 200 words in length.

a. Change Request 1 has not been included in the Gantt Chart
b. These tasks need to be included on the Gantt Chart as they are an important information that cannot be missed. Any changes to the project need to be reflected in the Gantt Chart. This chart represents critical information that allows the Project Manger to supervise not only the entire project but also who is assigned to what, duration of tasks, resources required and overlapping of activities. The Gantt Chart is the perfect tool for planning, scheduling, and the overall management of a project.

8. List the three (3) personnel who signed off on the change request.

a. Susan Wills (Program Manager, Massive Eco-Development Corporation)
b. Stephen Lyons (Planning Manager, Cascade Peaks Shire Council)
c. Kim Nguyen (Director, Awesome Landscapes Pty Ltd)

9. What is the total increase in cost of the project as a result of this change request?

The total increase of the cost is $17,900.

10. List five (5) exclusions under Stage 2 – Building Support of the Scope Management Plan.

a. Monitoring and maintaining partially and fully constructed buildings
b. Monitoring and maintaining the main road
c. Creation of additional retaining walls
d. Onsite security
e. Any building, decorating, or furnishing of the chalets

11. Review the Project Plan. Does it follow the change management procedure? Explain your reasoning.

Do not exceed 50 words.

After reviewing the Project Plan, I believe it does follow the change management procedure as the first step is for a change request form to be completed, which Sam Ng the Project Manager has done, shown on page 126 Appendix 38.

12. Access and review the Gantt Chart version 2. It shows double bars for each task.
    a. What do the coloured bars represent?
    b. What do the grey bars represent?
    c. Why do the grey and coloured bards do not match up in the Gantt chart?

a. The colored bars represent progress and manual progress.
b. The grey bar represents external tasks.
c. The reason for the colored and grey bars not matching up is the grey bars represent the project program determined at the beginning and the colored bars represent current progress in the project.

13. Assuming the project runs on schedule, list two (2) tasks that should be <u>in progress</u> if Sam was to visit the site on Monday 22 August.

    Do not include the task 'Project Management'.

a. Stage 1.1 Vegetation Removal
b. Stage 1.2 Construct Access Roads

14. If Sam was to visit the site on Thursday, 22 September, he will see that two (2) tasks are in progress, namely:
    a. Construction of retaining walls.
    b. Install and compact soil behind walls.

    According to the procedure documents, these two activities cannot happen at the same time. The retaining wall has to be built first. Once construction is completed, the soil needs to be added behind. Why are these two tasks in progress on the same day?

The construction of retaining walls and backfill are both in progress on the same day because once the retaining walls are complete backfilling can commence before the last retaining wall has finished.

15. According to the Gantt Chart, if there is a delay in the completion of Task 57 'Construct stone paving walkway',
    a. Which tasks, if any, are immediately delayed?
    b. Will this delay push out the completion of the project? Why or why not?
    c. Discuss how this could affect the resourcing of the project.
    d. List one (1) risk that could arise from this issue.

a. Stage 3.3- Erect Signage

b. If Stage 3.3 is delayed this could impact the project completion date

c. If a delay occurs this could impact the delivery of resources for the next task. For example, the plant supply company may only be able to delivery on the original scheduled date.

d. A delay in the project.

16. What is the total budget for the project expenditure?

The total expenditure of the project is $462,153.00

17. Sam is very concerned about the cash flow of the project.
    a. What is the problem?
    b. What would you suggest be done to rectify the cash flow issue?

a. There is not enough money to cover phase 1, as the first payment is due 01/10/16.

b. I would suggest a request to change payment sooner.

18. Discuss whether Awesome Landscapes should seek increased funding from Massive Eco-development Corporation to absorb some or all of these cost increases.

    Your discussion must be 200 – 300 words in length.

    Guidance:
    The change requests have incurred extra expense, yet the funding to be paid by Massive Eco-development Corporation has not changed.

    If you believe Awesome Landscapes should seek increase funding from Massive Eco-development Corporation, provide a strong argument for your case. If not, explain your reasoning.

Awesome Landscapes should seek increased funding from Massive Eco-Development Corporation as a result of the scope change. The scope change consisted of three additional retaining walls and longer access roads to reach the new wall locations. As this was not in the initial plans the extra costs were not accounted for in their budget for phase 1.

As the project initially came in under budget it left Massive Eco- Development with a surplus of $17,900. A projects contingency is used to fund any changes that occur during the project.

After receiving the approved scope change Awesome Landscape adjusted their plans and the budget of the phase in order to meet the new requirements of the project.

Due to the change in plans and knowing that Massive Eco-Development have left room to cover changes in plans, Sam should seek the increased funding to absorb the extra costs incurred by Awesome Landscaping due to the changes requested.

19. Complete the following Audit Template with the standards determined in the previous question (Case Study Question 18). This will be given to an internal auditor to audit the financial processes at various points along the project.

    Guidance: Complete only the fields highlighted in yellow. Do not complete the 'Assessment' and 'Comment' fields under 'Audit of Management of Project'.

Quality Audit Template
Project Name: ***Cascade Peak Chalets Landscaping Project***
Prepared by: Sam Ng

Date:		
Project Manager: ***Sam Ng, Awesome Landscapes***		
Project Phase:	**Overall Project Status:**	
Audit Date:	**Audit Number:**	**Audit Leader:**
Audit Team:		
Goal(s) of This Specific Audit: Start-Up Administration Procedures		
Audit of Management of Project:		
1. Did the Tender Handover Meeting take place? Are minutes available?	**Assessment:**	**Comment:**
2. Are project management plans saved in their appropriate location on the project folders?	**Assessment:**	**Comment:**
3. Are the policies for Quality, Environment, Operational Health and Safety and Rehabilitation on display around the office?	**Assessment:**	**Comment:**
4. Was the WBS Budget Import Sheet issued to the Cost Manager?	**Assessment:**	**Comment:**
5. Are up to date project insurances kept on record?	**Assessment:**	**Comment:**

6. Quality Risk Review • How has the Project Team identified the key quality risks for the project? • What are the key quality risks for the project? • What strategy has been developed to manage these risks? • Responsibilities have been allocated to relevant staff	**Assessment:**	**Comment:**
7. Has Project Training Needs Analysis been completed? • Submitted to Human Resources • Training requests submitted by project team to action update training	**Assessment:**	**Comment:**
8. Roles and responsibilities: Project quality and admin related responsibilities have been allocated and documented in project specific job descriptions or within a project responsibility matrix.	**Assessment:**	**Comment:**
9. Is correspondence mainly on Aconex?	**Assessment:**	**Comment:**
Overall Assessment of Management of Project:		

Recommended Action(s)/Lessons Learned Regarding Management of the Project: 1. 2. 3.
Additional Audit Comments: 1. 2. 3.
Have you attached additional material(s)? ye n
Name(s) of attachment(s): 1. 2.
Audit Report Submitted To: **Date:**

20. Sam has provided you with the following audit from a previous project (landscaping the new Cascade Peak Shopping Centre). Evaluate the audit report below and answer the following questions:
    a. What was the cause of the unsatisfactory results?
    b. What action would you recommend to prevent the issue coming up again in this project?

a. Tasks being communicated to the supervisor do not have the level of detail required by the site supervisor.

b. For the team to improve of their communication skills.

Quality Audit Template

Project Name: ***Cascade Peak Chalets Landscaping Project***		
Prepared by: ***Sam Ng***		
Date: ***17 August 2015***		
Project Manager: ***Sam Ng, Awesome Landscapes***		
Project Phase: ***Implementation***	**Overall Project Status:** ***On schedule***	
Audit Date: ***17 August 2011***	**Audit Number:** ***26***	**Audit Leader:** ***Sam Ng***
Audit Team: ***Sam Ng, John Cowley, Ann Deak.***		
Goal(s) of This Specific Audit: ***To evaluate the communication and reporting processes.***		
Audit of Management of Project:		
1. Are tasks being communicated to site supervisor in a reasonable amount of time?	**Assessment:** Satisfactory.	**Comment:**
2. Are tasks being communicated to site supervisor of sufficient detail?	**Assessment:** Not satisfactory.	**Comment:** Tasks only being communicated as per Gantt chart. Site supervisor having to seek clarification regularly on requirements of tasks.
3. Are tasks being communicated by the site supervisor to the team members and contractors done in a reasonable amount of time?	**Assessment:** Not satisfactory.	**Comment:** Timing of communication can be improved if there wasn't the need for clarification of the details of the tasks.

4. Are tasks being communicated by the site supervisor to the team members and contractors of sufficient detail?	**Assessment:** Satisfactory.	**Comment:**

Overall Assessment of Management of Project:

Tasks being communicated to the supervisor do not have the level of detail required by the site supervisor. In particular detailed plans are not provided with the task briefs. Some delays in commencing tasks have been experienced as the site supervisor has awaited clarification from the project manager.

Recommended Action(s)/Lessons Learned Regarding Management of the Project:

1. Project manager to prepare task briefs in enough time to add the required level of detail.

2. Task briefs are to be supplied with all relevant attachments such as detailed plans.

Additional Audit Comments:

1.

2.

3.

Have you attached additional material(s)?		ye	x n

Audit Report Submitted To: Kim Nguyen	**Date: 24/08/2015**

21. The quality plan is very weak on cost management. Write a Cost Management Plan (of 200 – 300 words) for managing the quality of the financial processes while the project is in progress.

Guidance: Your Cost Management Plan must cover the following quality objectives and criteria.

a. Meeting with contractual requirements.
b. Paying invoices on time.
c. Ensure invoices are sent out in time.
d. Ensuring financial reporting is done on time.
e. Include a calendar of when payments are likely to be due.
f. Comparison of actual cash flow against projected cash flow.

The cost management plan outlines how the project costs will be managed and controlled throughout the project's lifecycle. The Project Manager and Contracts Administrator are both responsible for managing and reporting on the project's cost performance. A cost management plan is made up of four processes - Resource Planning, Cost Estimating, Cost Budgeting, Cost Control.

Payment table on page 25 of the Project Plan is not highlighted yellow even though there has been a change to the start date of the project. See below updated table to show when invoices are to be sent out and the due date for payment. This is worked off of the assumption that 28 Calendar Days will be the payment terms.

	Description	Invoice Send Date	Payment Due Date	Payment terms
Payment 1	Commence Phase 1	29/06/2016	27/07/2016	28 Days (Calendar Assumed)
Payment 2	Handover Phase 1	25/08/2016	22/09/2016	28 Days (Calendar Assumed)
Payment 3	Handover Phase 2	8/12/2016	5/01/2017	28 Days (Calendar Assumed)
Payment 4	Handover Phase 3	9/02/2017	9/03/2017	28 Days (Calendar Assumed)

WORKBOOK CHECKLIST

When you have completed this workbook, please ensure you have completed all parts of it:

- ☑ **Written Questions**
  - ☑ **Part 1 – Project Scope**
  - ☑ **Part 2 – Project Time**
  - ☑ **Part 3 – Project Cost**
  - ☑ **Part 4 – Project Quality**
- ☑ **Case Study**

IMPORTANT REMINDER

Students must achieve a satisfactory result to ALL assessment tasks to be awarded COMPETENT for the unit relevant to this subject.

To award the student competent in the units relevant to this subject, the student must successfully complete all the requirements listed above according to the prescribed benchmarks.

End of Document