



Advanced Diploma in Project Management  
Managing Works and Costs  
Thursday 24<sup>th</sup> April 2014, 18.30-21.30

**Instructions to candidates:**

- a) Time allowed: Three hours (plus an extra 5 minutes' reading time at the start - do not write anything during this time).
- b) Attempt any FIVE questions out of the following EIGHT. All questions carry equal marks.
- c) Make sure to complete your full name, address, exam title on front of exam workbook. Inside workbook, clearly write on margin, number of exam question being attempted.

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## 2 Week 1

### 2.1 Project Charter

- 2.1.1 Outline 4 of the key headings a Project Manager would include when drafting a Project Charter. (20)
- 2.1.2 The Project Charter is a document which may be used to formally authorise a project and document initial requirements that satisfy the stake holder's needs and expectations'. Drawing on this statement, discuss 4 of the items that would typically be included in the Project Charter.
- 2.1.3 Outline 4 of the key headings a Project Manager would include when drafting a Project Charter. (20 marks)

#### Notes

The project is authorised appropriately

The project is described and understood to a sufficient level of detail

The project is registered and linked to necessary systems

The project starts!

1. Business needs and cost benefit analysis
2. Current understanding of customer needs
3. New product or service to be produced.

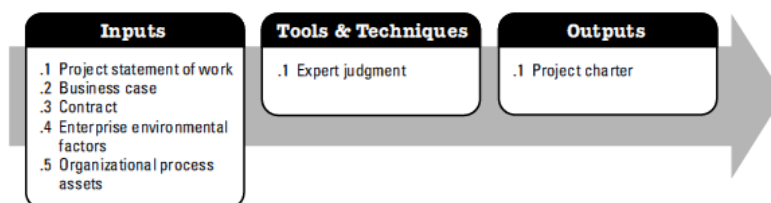
Web

Justification, Scope, Duration, Budget Estimate

#### 2.1.4 Project Charter - Answer

- Chapter 11.24 - Project+Management - A Systems Approach
- PMBOK

Figure 4-2 shows the inputs, tools and techniques, and outputs for this process and the data flow diagram is displayed in Figure 4-3.



## 2.2 Responsibility Assignment Matrix

**2.2.1 Q3. A Responsibility Assignment Matrix is a useful document in allocating project tasks between participants. Discuss the key headings of such a Matrix, briefly describing each of its constituent parts. (20)**

**2.2.2 Q3 Responsibility Assignment Matrix – Answer**

## 2.3 Initiating a project

**2.3.1 The Project Manager should ensure that 4 key steps are taken when initiating a project. Drawing on this statement, discuss each of these steps.**

## 3 Week 2 – Managing Progress

### 3.1 Closed Loop

**3.1.1 When exercising monitor and control over a project, we sometimes refer to a ‘closed loop system’. Discuss the 4 components of the closed loop system used to monitor and control a task.**

**3.1.2 A ‘closed loop control system’ is a good technique in maintaining control over a project. Discuss the 4 components of the closed loop system used to monitor and control a task. (20 marks)**

When exercising monitor and control over a project, we sometimes refer to a ‘closed loop system’. Discuss the 4 components of the closed loop system used to monitor and control a task. (20)

### **3.2 progress problems**

**3.2.1 Q4. Discuss each of the 4 main techniques available to the Project manager to address progress problems on a project. (20)**

**3.2.2 Discuss four corrective actions available to a project manager when a project starts to run late.**

Crashing, Fast tracking, Combination, RE-baselining

### **3.3 External Resources**

**3.3.1 A project manager will sometimes have to manage external resources on a project. Describe 4 issues that the project manager may have to consider in managing such resources.**

The main issues associated with such resources are:

- a) Unfamiliarity with the organization
- b) Lead time to secure additional staff
- c) Supervision
- d) Monitoring progress and quality from remote staff
- d) Release of project information

## **4 Week – 3 Managing Changes**

### **4.1 Change Control Process**

**4.1.1 It is essential that a change control process is followed strictly adhered too when managing work and costs on a project. In light if this statement, outline four steps involved in the change control process on a project. (16 marks)**

**4.1.2 Identify and briefly discuss a Change Control Process which may be used to prevent Scope Creep on a project. (4 marks)**

**4.1.3 Describe the Change Control Process a project manager might implement on a project to ensure change was satisfactorily managed. (20)**

#### **4.1.4 Answer (A) and (B)**

(a) "In its broadest definition, the process of Cost Management can be broken down into three components". Discuss each of these, highlighting the key differences. (15 marks)

(b) Name the two main cost categories that may be incorporated into a project budget, outlining 2 examples of each. (2 x 2.5 marks)

**4.2 Identify and briefly discuss a Change Control Process which may be used to prevent Scope Creep on a project.**

## **5 Week 4 Cost Control**

### **5.1 cost over runs**

**5.1.1 Discuss 4 of the main causes of cost over runs on projects**

**5.1.2 Discuss 4 of the main causes of cost over runs on projects (20 marks)**

**5.1.3 In addressing progress delays on a project, there are 4 main techniques available to the project manager. Discuss each of these, outlining the basic principles in each case. (20 marks)**

**5.1.4 Q6. Giving one example in each case, discuss two types of costs that need to be considered when building up a project estimate. (2x10)**

## **6 Week 5 – EVA and Cost Reporting**

### **6.1 Calculation**

#### **6.1.1 Q5. Answer (a) (b) and (c)**

An Engineering Project has a budget at completion of €6,300 and project duration of 11 days. The project manager has assessed that the project is 75% complete and the Budgeted Cost of Works Scheduled completed is €5,050. The cost collection system indicates that the Actual Cost of Work Performed is €5,200.

#### **6.1.2 An Engineering Project**

has a budget at completion of €6,300 and project duration of 11 days. The project manager has assessed that the project is 75% complete and the Budgeted Cost of Works Scheduled completed is €5,050. The cost collection system indicates that the Actual Cost of Work Performed is €5,200. A) Calculate the schedule variance and the cost variance for the project activity. B) Calculate the schedule performance index and cost performance index for the project activity. C) What is your interpretation of the results?

- (a) Calculate the schedule variance and the cost variance for the project activity. (8)
- (b) Calculate the schedule performance index and cost performance index for the project activity. (8)
- (c) What is your interpretation of the results? (4)

#### **6.1.3 An Earned value Earned Value Analysis is performed on day 8 of a 10 day project, and gives the following results:**

- (d) Budgeted Cost of Work Performed - €4,900
- (e) Budgeted Cost of Work Scheduled - €6,000

(f) Actual Cost of Work Performed – €6,500

(g) Calculate the Cost Variance and Schedule Variances (10 marks)

#### **6.1.4 Answer Part (A) and Part (B)**

Describe the difference between Budgeted Cost of Work Scheduled (BCWS) and Actual Cost of Works Progressed (ACWP) in the context of Earned Value, outlining how are these figures calculated. (2 x 5 marks)

## **7 Week 6**

### **7.1.1 Project Closure**

#### **7.1.2 Q7. Answer (a) and (b)**

**On some complex projects, a significant amount of time and effort may be needed to administer the closure of the projects.**

(a) Drawing on this statement, discuss the 3 areas a project manager would need to ensure are satisfactorily closed out on a project at completion? (3x4)

#### **7.1.3 (b) Discuss 2 areas in a Project Review that a project Manager might discuss at project completion. (2x4)**

**7.1.4 'Part of your role as a Project Manager includes the preparation of a Post Project Review Report at the Project Closure Stage.' What should be included in this report and under what headings may the project be reviewed? (20 marks)**