



**UNIVERSITY OF COLOMBO, SRI LANKA**

**UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING**

**DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)**

**Academic Year 2008/2009 – 2<sup>nd</sup> Year Examination – Semester 4**

***IT4203: IT Project Management***  
***PART 2 - Structured Question Paper***

**15<sup>th</sup> August, 2009**  
**(ONE HOUR)**

**To be completed by the candidate**

BIT Examination Index No: \_\_\_\_\_

**Important Instructions:**

- The duration of the paper is **1 (one) hour**.
- The medium of instruction and questions is English.
- This paper has **8 questions** and **9 pages**.
- **Answer all questions which carry different marks as indicated.**
- **Write your answers** in English using the space provided **in this question paper**.
- Do not tear off any part of this answer book.
- Under no circumstances may this book, used or unused, be removed from the Examination Hall by a candidate.
- Note that questions appear on both sides of the paper.  
If a page is not printed, please inform the supervisor immediately.

**Questions Answered**

Indicate by a cross (×), (e.g. ☐) the numbers of the questions answered.

To be completed by the candidate by marking a cross (×).	1	2	3	4	5	6	7	8
To be completed by the examiners:								

**Census Modernization Project (CMP)**

The case of a Census Modernization Project offers a classic example of an ambitious Information Technology project. When the Department of Census unveiled the project, the idea was to arm its field census enumerators with high-tech handheld devices that could directly capture and transmit the population information to the department as they collected the relevant information from the population. Census officials signed a 300 million contract with ABC Corporation to build 250,000 handheld devices, but they were not sure which features they wanted included in the units. What they did know was that this project would cost at least 2 billion in total. Though there were no detailed projections, they assured the public that the handheld devices were sure to save the department a considerable amount of time and money.

The ABC Corporation reported that since it signed on with the Department of Census, it received over 400 change requests to project requirements. Out of many who bid for the project, ABC Corporation's bid was the lowest, and the tender evaluation committee selected the lowest bid to award the project without taking into consideration their previous experience or the competency of the project team. ABC Corporation itself had had staff problems during and before the project with high staff turn-over. To top it all, the project manager himself was not available to work on the project due to a brief illness and had to be replaced by a new project manager who did not have the necessary experience to guide a project of this nature.

Last year after the initiation of the project, the handheld project was in shambles. In April, the Department head sent a press release announcing that it was significantly reducing the role of the handhelds in the next Census efforts. After spending hundreds of millions in taxpayer money, the census enumerators were for the most part going back to the old-fashioned pen or pencil and paper method.

Part of the reason the department scrapped the project was the subsequent cost overruns that were going to be necessary to get the full project off the ground given the midstream requirements changes. What is worse, even as census enumerators were relegated back to the paper age, the total cost of census estimates rose by the billions.

According to a report by the Government Audit, the units that were tested out in the field in the previous year were regularly experiencing problems with "transmission, the device freezing, map spotting (collecting mapping coordinates), and difficulties working with large blocks." Service levels were not acceptable and enumerators complained that it was taking too long to perform routine tasks. The project team had not accurately determined the load.

- 1) a). What are the constraints that have to be properly managed on a project?

(3 marks)

**ANSWER IN THIS BOX**

**Scope, Time and Cost**

- b). In the Census Modernization Project (CMP) these constraints may not have been properly managed. Give two ways in which each one of these constraints were improperly managed.

(6 marks)

**ANSWER IN THIS BOX**

**Scope** – scope creep set in with over 400 change requests from the users. The initial requirements were not identified correctly too.

**Time** - to accommodate requested changes, more time was required to complete the project. As detailed projections were not done project time management was poor. Staff turnover, new members spend time on learning

**Cost** – the lowest bidder was awarded the contract without taking into consideration the quality of work, experience of the project team etc. No proper budget estimates were made. Again with scope creep, costs escalated.

- 2) List five (5) project success factors that could have helped the CMP to succeed.

(10 marks)

**ANSWER IN THIS BOX**

Answer any five:

- User involvement,
- Experienced project manager,
- Clear business objectives,
- Minimized scope, Firm basic requirements,
- Reliable estimates

- 3) a). What are the main objectives of integrated change control?

(6 marks)

**ANSWER IN THIS BOX**

- 1). To ensure that changes are beneficial to the success of the project and organization,
- 2). determining that a change has occurred and
- 3). managing actual changes as they occur.

- b). Suggest 3 ways in which incomplete and changing requirements could have been reduced in the CMP.

(9 marks)

**ANSWER IN THIS BOX**

Answer any 3 :

- Prototyping,
- Use case modeling or JAD,
- Put all requirements in writing and keep them current and readily available,
- Emphasize completion dates,
- Develop and follow a requirements management process that includes procedures for initial requirements determination, Provide adequate testing to verify that the project's products perform as expected,
- Allocate resources specifically for handling change requests.

- 4) a). List three(3) main processes involved in project time management?

(9 marks)

**ANSWER IN THIS BOX**

Answer any 3:

- Activity definition,
- Activity sequencing,
- Activity resource estimating,
- Activity duration estimating,
- Schedule development,
- Schedule control

- b). Some or all the processes in project time management may have been poorly managed in the CMP. Site one example each to show how three (3) such processes were poorly managed in the CMP.

(12 marks)

**ANSWER IN THIS BOX**

**Answer any 2:**

- **Poor activity resource estimating – no proper estimates of people, equipment and materials were done.**
- **Poor schedule development – A project schedule, a schedule baseline, requested changes, and updates to resource requirements, project calendar and the proper project management plan may not have been developed.**
- **Poor schedule control- Did not control and manage changes to the project schedule**

- 5) The management of human resources may not have been done professionally in this project. What tools or techniques could have been used by the project manager to manage the team members properly?

(12 marks)

**ANSWER IN THIS BOX**

- Observation & conversation,
- Project performance appraisal,
- Conflict management, Issue logs

- 6) a). Identify three (3) broad categories of risks for CMP.

(6 marks)

**ANSWER IN THIS BOX**

Answer any 3:

- Market risk,
- financial risk,
- technology risk,
- people risk,
- structure/process risk

- b). Develop a risk questionnaire for each of the categories of risks identified in question 6 (a.) Each questionnaire should have at least three (3) questions.

(9 marks)

**ANSWER IN THIS BOX**

**Market risk questionnaire** – Will the product be useful? Will users accept the product? Could someone else have provided a better, less expensive product faster?

**Financial risk questionnaire** – Can the Census department afford the project? Will the project meet NPV, ROI and payback estimates? Is this the best way to use the department's money?

**Technology risk questionnaire** – Is the project technically feasible? Will hardware, software and networks function properly? Could the technology be obsolete before a useful product can be built?

**People risk questionnaire** – Can experienced people be found to successfully complete the project? Does senior management of the Census department support the project? Does the project team have the proper managerial & technical skills?

**Structure/process risk questionnaire** – What is the degree of change the new project will introduce into the user areas? With how many other systems does the new project need to interact? How many distinct user groups does the project need to satisfy?



7) What are the main processes in project procurement management?

(12 marks)

**ANSWER IN THIS BOX**

- Planning purchases & acquisitions,
- Planning contracting, Requesting seller responses,
- Selecting sellers,
- Administering the contract,
- Closing the contract

8) What criteria could have been used in source selection in the CPM?

(6 marks)

**ANSWER IN THIS BOX**

Using a formal proposal evaluation sheet during source selection, More weight to be given to management or cost criteria than technical criteria, The seller with the highest points scored based on management approach, past performance, price etc. awarded the contract.

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