



**UNIVERSITY OF COLOMBO, SRI LANKA**

**UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING**

**DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY**  
*Academic Year 2009/2010 – 2<sup>nd</sup> Year Examination – Semester 4*

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

**14<sup>th</sup> August, 2010**  
**(ONE HOUR)**

|   |
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| <p><b>To be completed by the candidate</b></p> <p>BIT Examination Index No: _____</p> |
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**Important Instructions:**

- The duration of the paper is **1 (one) hour**.
- The medium of instruction and questions is English.
- This paper has **3 questions** and **7 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.

| <b>To be completed by the candidate by marking a cross (×).</b> | 1 | 2 | 3 |  |
|---|---|---|---|--|
| To be completed by the examiners:                               |   |   |   |  |
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## **eCourier-Colombo**

eCourier-Colombo is a same day 24/7 courier service based in Colombo, Sri Lanka. The company was formed in 2003 with the aim of providing a courier service that is focused on delivery transparency and automated customer interaction. Parcels are collected from any Colombo address and taken to any final destination requested by the client. Although the company originally delivered parcels only to Colombo addresses, they now deliver parcels to any global location requested by corporate clients. Advanced Information Based Allocation (AIBA), an intelligent dispatch and fleet management system is utilised to allocate a booking to the most appropriate vehicle (including bicycles, motor bicycles and vans of varying sizes) which sends a message to the courier to alert regarding the job through a handheld terminal. In addition to detecting the nearest vehicle to the pickup location, AIBA also undertakes an analysis of the individual performance of couriers, trends such as congestion affecting speed of delivery during peak times and weather conditions which may affect the performance of some couriers.

Couriers are rewarded and motivated with high pay for the service levels they provide, supported by the technology, thus rendering a courier service that is reliable, trustworthy and transparent. Extensive training was needed to be given to the couriers to change the way in which they worked and behaved in order to fit the new organisational practices and image, enabled by information technology. In addition to systems for employees, the customer has been provided with a real time tracking of his parcel on a map, utilising GPS technology. They are also shown the shortest route, for which they are billed, from pick-up to dispatch. On the same map he can watch his parcel en-route to the final destination. Once the parcel has been delivered at the destination, a Proof of Delivery e-mail is sent within seconds. It is this high level of human to system connectivity that is at the heart of eCourier-Colombo. Because the majority of bookings and customer queries are taken online owing to the ease of use of the website, fewer staff members need to be hired, and they can focus on any complex issues that arise.

eCourier-Colombo has entered into profitable partnerships with many International couriers (e.g. members of the World Trade Organisation - Courier Services) to offer a worldwide service to its customers. Their two key IT systems have been developed to facilitate collaboration with International courier services thus making eCourier-Colombo's practices and procedures compatible with their International partners.

eCourier-Colombo recruited and headhunted top employees for their skills and experience in specific areas to provide the greatest benefit to eCourier-Colombo project when it was developed. In the project, many skills were brought into the company by hiring employees with specific skills. The skills of the five core team members include Management and operations, Systems development management, Business risk management, Website specialisation, Information assurance, Benefits management and Project management. Staff members for Business risk management, Systems Development and Project management were highly qualified, but the rest were with lower and varying levels of skills. If the project had recruited staff with a complete set of skills, it would have helped to develop the other team members' skills even more effectively through learning from the complementary skills within the organisation. Due to the success of this project, without even having a full set of skills, it can be suggested that an incomplete but complementary set of skills can contribute towards project success.

The technology behind eCourier-Colombo aims to utilise a system to predict travel times between any two places in Sri Lanka. eCourier-Colombo developed two key IT systems: one is their intelligent backend ABIA system and the other is their website www.ecourier.co.lk. The ABIA system is written in Java and is running on a Linux platform. It combines mobile devices, GPS and IT based fleet management with an Internet platform. Their main servers include: Web server, Microsoft SQL server, Mapping server, Gateway server, Allocation server and MySQL server. Technology has been used to ensure the smooth running of the business. Disaster recovery systems have been put in place to ensure that the computers and operations have a constant supply of power. This is backed up by generators, although by the very nature of the system, it can also be run remotely. Their website is powered by an ISAP dll module written in Delphi. The advanced interactive mapping technology on their online tracking system is a key marketing point for eCourier-Colombo as it allows customers to zoom, pan and focus on couriers to street level without refreshing the whole web page. Each of their couriers is given a handheld computer and GPS equipment, which allows a client to watch and follow the progress of his delivery.

- 1) List at least five (5) changes that would have occurred in the Courier service given in the case study after implementation of the eCourier-Colombo project.

(5 x 5 marks)

**ANSWER IN THIS BOX**

**Answer (any five):**

- Couriers can provide a better and more efficient service.
- eCourier-Colombo can provide a world-wide service.
- Change the way in which couriers worked and behaved in order to fit the new organisational practices and image, enabled by information technology.
- Customer has been provided with a real time tracking of their parcel on a map, utilising GPS technology.
- Customers are also shown the shortest route for which they are billed from pick-up to dispatch.
- Once the parcel has arrived, a Proof of Delivery e-mail is sent within seconds to the customer.
- High level of human to system connectivity.
- Fewer staff members need to be hired.
- Many skills were brought into the company by hiring employees with specific skill sets.
- Able to predict travel times between any two places in Sri Lanka.

2) Briefly describe five (5) strategies that have been used by the project to reduce the risks of not providing a proper service to the couriers and clients of eCourier-Colombo.

(5 x 5 marks)

**ANSWER IN THIS BOX**

**Answer (any five):**

- Disaster recovery systems have been put in place to ensure that the computers and operations have a constant supply of power.
- Providing Backup generators.
- Providing a system that can also be run remotely.
- Couriers being rewarded and motivated with high pay for the service levels they provide.
- Couriers being supported by the technology to provide a service that is reliable, trustworthy and transparent.
- Extensive training provided to the couriers to change the way in which they worked and behaved in order to fit the new organisational practices and image, enabled by information technology.
- The customer has been provided with a real time tracking of their parcel on a map, utilising GPS technology which has increased customer acceptance of eCourier-Colombo.

- 3) a) Identify the following stakeholders in the eCourier-Colombo project.
- The project sponsor
  - Project team
  - Customers
  - Users
  - Any opponents to the project

(2 x 5 marks)

**ANSWER IN THIS BOX**

| Category                    | Example  |
|-----------------------------|--|
| Project Sponsor             | CEO/MD/Chairman/Board of Directors of eCourier-Colombo.  |
| Project team                | Project Manager, Management and Operations Manager, Systems Development Manager, Business Risk Manager, Website Specialist, Information Assurance Manager, Benefits Manager. |
| Customers                   | People in Sri Lanka & other countries using the eCourier-Colombo.  |
| Users                       | Couriers, Employees accepting bookings and responding to customer queries, Employees preparing bills, Employees providing technical support.                                 |
| Any opponent to the project | Competitors, Users themselves as they are reluctant to change their ways of doing things.  |

b) How are the stakeholders identified in 3-(a) important to the success of the project?

(3 x 5 marks)

**ANSWER IN THIS BOX**

| Category                    | How they are important   |
|-----------------------------|--|
| Project Sponsor             | Provide executive support, Provides direction and funding for the project.   |
| Project team                | By knowing exactly what work they are supposed to do in the project and when they have to do it.<br>They also need to know what resources they need. They also need to coordinate among themselves if the project is to be successful. |
| Customers                   | They need to supply the project team with very clear requirements and what they really expect as deliverables of the project.  |
| Users                       | They need to supply the project team with very clear requirements and what they really expect as deliverables of the project.  |
| Any opponent to the project | It is important to resolve matters arising from opponents amicably because they can make formal complaints or take union action which will lead to temporary or permanent suspension of the project.                                   |

c) Briefly describe what measures would have been taken to satisfy the stakeholders mentioned in 3-(a).

(5 x 5 marks)

| <b>ANSWER IN THIS BOX</b>   |   |
|-----------------------------|---|
| <b>Category</b>             | <b>Measures to satisfy</b>  |
| Project Sponsor             | Project provides him with a world class courier service, increased profits, recognition among the business community as a leader.   |
| Project team                | Access to new technology, skilled experts are provided to work on the project.  |
| Customers                   | The customer is provided with a real time tracking of his parcel on a map, utilising GPS technology. They are also shown the shortest route, for which they are billed, from pick-up to dispatch. A transparent, quick world class service is provided. A Proof of Delivery e-mail is sent to customer.   |
| Users                       | Technology has been used to ensure the smooth running of the business. Disaster recovery systems have been put in place to ensure that the computers and operations have a constant supply of power so that users can have an uninterrupted service from their Information Systems. Couriers are rewarded and motivated with high pay for the service levels they provide, supported by the technology. |
| Any opponent to the project | Benefits of IT provides the users with a hassle-free working environment. High pay will motivate those reluctant to use the new system. Competitors can be won over by offering partnerships etc.   |

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