DUBLIN CITY UNIVERSITY

SEMESTER 1 EXAMINATIONS 2015/2016

MODULE: CA441 – Business Process Management

PROGRAMME(S):

EC	BSc in Enterprise Computing
CASE	BSc in Computer Applications (Sft.Eng.)
ECSAO	Study Abroad (Engineering & Computing)

YEAR OF STUDY: 4,O

EXAMINERS:

Dr Martin Crane   (Ext:8974)
Dr. Declan O'Sullivan
Dr. Ian Pitt

TIME ALLOWED: 2 Hours

INSTRUCTIONS: Answer 3 questions. All questions carry equal marks.

PLEASE DO NOT TURN OVER THIS PAGE UNTIL YOU ARE INSTRUCTED TO DO SO

The use of programmable or text storing calculators is expressly forbidden.

Please note that where a candidate answers more than the required number of questions, the examiner will mark all questions attempted and then select the highest scoring ones.

SECTION A

Question 1 Case Study [**Total marks: 40**]
Compulsory

The attached Case Study (Appendix A) is taken from an article from the `Interfacing.com` webpage, post date 06/07/2004. Read the case study thoroughly and answer the following questions.

1(a) [4 marks]

Name what you think are four potential benefits accruing to AOL through transforming its manual-based payment process to an Electronic Funds Transfer (EFT) Model.

1(b) [16 marks]

The steps involved in a sample Electronic Funds Transfer (EFT) process are the following:
1. The sender (having received endorsement from their manager) instructs the bank to transfer the money (giving the receiving banks details).
2. Through a secure message system like SWIFT, the bank which is transferring the money sends a message to the receiving bank requesting to process the payment as per the instructions.
3. After a short time the money is transferred into the receiver's account which they are then able to draw on.

Taking the expense reimbursement as your prototype, draw Swimlane or BPMN diagrams of what you consider to be the "as-is" process and the "to-be" process as detailed.

1(c) [20 marks]

Using the knowledge that you have gained of AOL, the benefits they have from automating the EFT process and your knowledge of what successful BPR projects have in common, suggest another process in AOL that might be reengineered. Describe three stakeholders and their roles in the change process. For *each of these three* stakeholders describe four of their requirements from the process.

--[End of Question 1]--

SECTION B

Question 2 **[Total marks: 30]**

2(a) [12 marks]

Briefly describe Rainey's three differences between Public Sector Organizations (PSOs) and their Private Sector Counterparts. Discuss three reasons why PSOs are undergoing change currently.

2(b) [18 marks]

With regard to the history of BPR in PublicCorp (a Public Sector Organization in the Construction sector in Brazil) trace the failure of the change effort under the following headings:

[4 marks]

(i)   Organizational background and warning signs,

[6 marks]

(ii)   The teams responsible for the change effort, the roles of each and the progress of the change effort from each team's viewpoint.

[8 marks]

(iii)   The ultimate reasons for the failure of the change effort and the lessons for the future of BPR in PSOs.

[End of Question2]

Question 3 **[TOTAL MARKS: 30]**

3(a) [12 marks]

Define and give examples for what is meant by the 'process enablers' that need to be considered when analysing a business process.

3(b) [18 marks]

Taking a business process that you are familiar with (such as the Student Registration process covered in class), show how the 'process enablers' affect it, and assess the impact of change in _three_ of the enablers either adversely or favourably.

[End of Question3]

Question 4 **[Total marks: 30]**

4(a) [12 marks]

Distinguish between Workflow Modelling and Business Process Modelling. How does Business Process Modelling relate to the conventional modelling of Workflow using, for instance, Petri Nets? Give four reasons why a 21st Century organisation would want to use Business Process Modelling.

4(b) [18 marks]

A company would like to examine its flight booking process. The process is as follows: the employee who would like to travel plans their trip and submits the order to the travel agent. The travel agent receives the order and checks for availability. If there is a problem with availability, the agent returns the order to the employee who resubmits the order. If there is availability, the travel agent will order the ticket from the airline. The airline takes the order, reserves the seat, charges the company credit card and confirms the flight to the travel agent. The travel agent takes the confirmation and issues an itinerary to the employee. The employee takes the itinerary and waits for the e-ticket to arrive from the airline.

Draw a BPMN Diagram for this process, adding detail where you consider it necessary. Identify the different categories of BPMN elements in your diagram.

[End of Question4]

APPENDIX A

America Online, Inc., Financial Services
July 6, 2004

IT initiatives are often considered separately from the business processes they support. This case shows how America Online, Inc. employed business process management (BPM) principles to justify an electronic funds transfer (EFT) project initiative for handling employee expenses and vendor invoices.

Through the use of Interfacing's *Charter* (a Microsoft® Visio® add-on) and *Designer* (a process simulation software), AOL modelled the as-is and the to-be business processes and captured the use and impact of the *Computron*[1]-enabled system applications on the supporting business process. AOL saw the impact on the process before implementation and demonstrated the benefits to get organizational 'buy-in' for this initiative.

EFT Process
AOL is a very dynamic organization undergoing rapid expansion. In order to support this growth, the company aims at the continuous improvement of its operations. Within the department of Financial Services, this transformation process is being formalized and each new improvement project has to go through a full cycle of proposal creation, approval and implementation. AOL turned to Interfacing for their consulting expertise in business transformation and for its BPM software products to help in this process.

America Online, Inc. chose its electronic funds transfer (EFT) initiative as a pilot project. This process includes the steps taken from the moment an employee completes an expense reimbursement, or AOL receives a vendor invoice, until the time that the payment is processed. Currently, it is a mostly manual, time-consuming process that provides no flexibility to the customer, internal or external. Under the EFT proposal, AOL is to introduce an electronic system, based on existing *Computron* applications, where the customer is offered the option of receiving directly into his/her account the amount due. This, in turn, is expected to result in better and more efficient service levels.

The challenge lies in the fact that the proposed framework is an IT based solution, which supports a business process. AOL wanted to analyze the feasibility of the proposed EFT process and measure its benefits, in terms of elapsed time, total operating cost, resource utilization levels and customer satisfaction.
A comparative study was conducted through the use of *Charter* and *Designer*. This included:

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[1] A Financial Software Package

• The process mapping of the current mode of operations as well as the EFT process, thus creating the as-is and the to-be models respectively
•The simulation of both process models, followed by the analysis of the results obtained

The use of the *Charter* and *Designer* offered AOL a rigorous mapping approach. This resulted in accurately capturing all cost and times contributors in the as-is model. It also helped shape the desired EFT process. Potential problem areas were identified prior to implementation, avoiding costly and disruptive refinements later. Also, the analysis of the business process helped in designing better *Computron*-enabled systems by depicting the links between the two.

Through the use of *Designer*, AOL was able to capture the impact of the EFT process through all the desired metrics. Accordingly, the following benefits were captured for the introduction of the EFT process, considering a weekly volume of transactions:

•The elapsed time is reduced by 55%, leading to clear customer satisfaction
•The total operating costs are reduced by 30%
•The critical resources are freed for up to 51% of their time allocated to this process

The Future
AOL is expanding the use of Charter and Designer for a wide variety of additional initiatives in the Financial Systems and other enterprise functions, following the same approach.

[END OF APPENDICES]

[END OF EXAM]