**UTHM**

Universiti Tun Hussein Onn Malaysia

# UNIVERSITI TUN HUSSEIN ONN MALAYSIA

## FINAL EXAMINATION
## SEMESTER II
## SESSION 2015/2016

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|---|---|---|
| COURSE NAME | : | CONSTRUCTION FINANCE |
| COURSE CODE | : | BNC 40103 |
| PROGRAMME CODE | : | BNC |
| EXAMINATION DATE | : | JUNE / JULY 2016 |
| DURATION | : | 3 HOURS |
| INSTRUCTION | : | ANSWER **ALL** QUESTIONS |

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

**Q1**     (a)     The process of financial management begins at the feasibility study and continues right through the project to commissioning and operation.

(i)     State the key steps involved.

(5 marks)

(ii)     Provide illustrations of case studies on each step.

(10 marks)

(b)     You need to calculate the ALE for a server. The value of the server is RM3,000, but it has crashed 10 times in the past year. Each time it crashed, it resulted in a 10 percent loss. Calculate the ALE.

(5 marks)

(c)     Imagine that employees at your company lose, on average, one laptop a month. Thieves have stolen them when employees left them in conference rooms during lunch, while they were on location at customer locations, and from training rooms.

Someone suggested purchasing hardware locks to secure these laptops for a total of RM1,000. These locks work similar to bicycle locks and allow employees to wrap the cable around a piece of furniture and connect into the laptop. A thief needs to either destroy the laptop to remove the lock or take the furniture with them when stealing the laptop.

You have identified the average cost of these laptops, including the hardware, software, and data, as RM2,000 each. This assumes employees do not store entire databases of customer information or other sensitive data on the systems, which can easily result in much higher costs. Calculate the SLE, ARO, and ALE.

(5 marks)

**Q2**     (a)     Risk analysis can be used throughout a project to improve the quality of technical evaluations and improve risk mitigation techniques. Explain the process of quantitative risk analysis.

(10 marks)

(b)     Discuss **THREE (3)** types of risk failures.

(9 marks)

(c)     Sensitivity analysis is part of the Monte Carlo Simulation which studies on how the uncertainty in the output of a mathematical model or system can be apportioned to different sources of uncertainty in its inputs. Describe the use of sensitivity analysis.

(6 marks)

**Q3** The combination of economic theory and computer technology allows for a more sophisticated approach to the design and construction of a facility than ever before. Instead of merely looking at the facility in terms of cost to design and build, owners can broaden their perspective to include operations, maintenance, repair, replacement, and disposal costs.

(a) Provide definition of Life Cycle Cost (LCC) Analysis

(3 marks)

(b) List **TWO (2)** components in the LCC equation.

(2 marks)

(c) Demonstrate in detail the steps for the completion of LCC analysis of a project alternative.

(20 marks)

**Q4** Exide Company sells batteries that are used in vehicles. The current assets and current liabilities as on 31 December, 2012 are given in **Table Q4 (a).** The YXM Sdn. Bhd. is a consultant company with current assets and current liabilities as on 31 December, 2012 are given in **Table Q4 (b)**.

(a) List the current assets for Exide Company and YXM Sdn. Bhd.

(8 marks)

(b) Calculate the working capital turnover ratio for Exide Company and YXM Sdn. Bhd.

(10 marks)

(c) Compare and explain calculation results from answer Q4(b).

(5 marks)

(d) Calculate the return of the capital if Exide Company gets RM100,000.00 profit a year with RM250,000.00 investment.

(2 marks)

**- END OF QUESTIONS –**

**Table Q4 (a)**

| Exide Company | |
|---|---|
| Cost of goods sold | RM300,000 |
| Accounts payable | RM60,000 |
| Inventory | RM40,000 |
| Accounts receivables | RM50,000 |
| Notes receivables | RM10,000 |
| Cash | RM20,000 |

**Table Q4 (b)**

| YXM PTE. LTD. | |
|---|---|
| Current debt | RM40,000 |
| Accounts payable | RM80,000 |
| Inventory | RM40,000 |
| Accounts receivables | RM20,000 |
| Accrued expenses | RM30,000 |
| Cash | RM200,000 |
| Securities | RM100,000 |
| Cost of goods sold | RM500,000 |