



# NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF APPLIED SCIENCES

DEPARTMENT OF APPLIED CHEMISTRY

PROJECT DEVELOPMENT AND MANAGEMENT

SCH 4210

Supplementary Examination Paper

July 2016

This examination paper consists of 3 pages

**Time Allowed:** 3 hours

**Total Marks:** 100

**Special Requirements:**

**Examiner's Name:** Mr Donatus Dube

## INSTRUCTIONS

1. Answer any four (4) questions.
2. Each question carries 25 marks.
3. Use of calculators is permissible.

## MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
<b>TOTAL POSSIBLE MARKS</b>	<b>100</b>

Copyright: National University of Science and Technology, 2015

1. a) A fixed-price-plus-incentive-fee (FPI) contract has a target cost of \$130,000, a target profit of \$15,000, a target price of \$145,000, a ceiling price of \$160,000, and a share ratio of 80/20. The actual cost of the project was \$150,000. How much profit does the seller make? (Show your working) (4 marks)
  - b) Who between the Quality Manager and the Project manager is responsible for quality during project implementation? Explain. (4 marks)
  - c) What is the “halo effect” in project management? Explain why you support/do not support this technique? (6 marks)
  - d) The CPI of a project is 0.89. What does this tell you about the project? (3 marks)
  - e) What 4 factors influence the shape of project life-cycle cash flow curve? (8 marks)
2. Using relevant illustrations explain the importance of the following in project development and management;
    - a) Market niche
    - b) Strategic fit
    - c) Supply/demand curve
    - d) Learning curve
    - e) Supply chain (25 marks)

3. Consider the following project network and answer the questions that follow;

<u>Activity</u>	<u>Duration (days)</u>
(1,2)	7
(1,3)	6
(2,4)	5
(2,5)	3
(3,5)	8
(4,5)	7

- a) Draw the network and determine the critical path. (5 marks)
- b) If event 4 is delayed by 2 days what effect will this have on:
  - i. Project duration
  - ii. Critical path (4 marks)
- c) Calculate:
  - i. Total floats
  - ii. Free floats (8 marks)
- d) Construct the CPM bar chart for the project (8 marks)

**Copyright: National University of Science and Technology, 2015**

4. a) A project manager needs some work done by an outside contractor. This work has a great deal of risk and no one seems interested to do it. What kind of incentives should the project manager offer to potential contractors so that the job can find takers?  
(4 marks)
- b) Find the cost variance if given the following for a project  
EV= \$350; AC = \$400 and PV = \$325  
(3 marks)
- c) During the feasibility study for your income generating project how did you carry out the following?  
i. Stake holder analysis  
ii. Competitor analysis  
iii. Market research  
iv. Looking back are there any things that you would have done differently if given a second chance? Explain in detail.  
(18 marks)
5. Describe the tools of conflict resolution in a project explaining the advantages and disadvantages of each method. Also identify practical project areas where the tools can be used.  
(25 marks)

.....*THE END*.....