



**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF APPLIED CHEMISTRY  
END OF SECOND SEMESTER EXAMINATIONS – MAY 2004  
PROJECT DEVELOPMENT AND MANAGEMENT – SCH 4210  
TIME: 3 HOURS**

**INSTRUCTIONS TO CANDIDATES**

Answer **ANY FIVE (5)** questions from the six (6) provided. Each question carries 20 marks.

1. Hastings p/c is considering a project proposal which will cost US\$12 303. As a result of this capital expenditure, net cash flows for the first 4 years are forecast as follows:

Year	Net Cash Flow (US\$)
1	5 000
2	7 000
3	4 000
4	2 000

The cost of capital is 10%. Using the Internal Rate of Return determine whether or not this project proposal is worthwhile for Hastings p/c. (20 marks)

2. Please refer to the attached information on the Matabeleland Zambezi Water Project (MZWP).
- (a) What type of project is the MZWP? (2 marks)
- (b) List the goals and objectives of this project. (6 marks)
- (c) Prepare a Work Break Down Structure for MZWP. (12 marks)
3. Your company has won the tender to lay the pipeline from the dam to Bulawayo for MZWP.
- (a) What type of contract would you enter with the lead implementing agency and why? (6 marks)
- (b) How would your company prepare the Statement of Work (SOW) for the project? (10 marks)
- (c) Prepare a Gantt Chart for this section of the project. (4 marks)

4. Below is a table of activity series of a project.

<i>Activity</i>	<i>Preceding Activity</i>	<i>Time (weeks)</i>
A	-	4
B	-	6
C	A,B	7
D	B	8
E	B	5
F	C	5
G	D	7
H	D,E	8
I	F,G,H	4

- (a) Identify the Critical Path. (14 marks)
- (b) What are the benefits of CPA in project planning? (6 marks)
5. (a) What are *pay-off tables* in project control? (4 marks)
- (b) Quality is one of the major project constraints. Describe the process of control of quality in project management and control. (12 marks)
- (c) What is the earned value of a project? (4 marks)

6. The following nasty exchanges occurred at a management meeting at P and M Contractors.

Production Manager to Quality Assurance Manager: "Your job is just to check and reject! Can't you see you are costing lots of money to the company. We spend whole days in the heat. You sit in your office only to come out and say reject. Are you Mr Reject?"

Quality Assurance Manager: "Piss off. You can't do things right. You want me to do your job. You don't follow the procedures. Above all you are just arrogant."

Analyse the above conflict and recommend how it should be resolved.

(20 marks)

*End of question Paper!!!*