

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

**DEPARTMENT OF TEXTILE TECHNOLOGY
END OF SEMESTER EXAMINATIONS MAY 2005**

COURSE TITLE: TXT 4229-PROJECT MANAGEMENT

TIME: 3 HOURS

INSTRUCTIONS

Answer **ALL** Questions in Section A and **ANY OTHER** two questions from Section B.
Each question carries **25 marks**.

Total marks: 100

SECTION A

QUESTION 1

A project consists of 8 activities. The activity completion times and precedence relationships are as follows:

Activity	Completion time (days)	Immediate predecessor activities
A	5	-
B	7	-
C	6	-
D	3	A
E	4	B, C
F	2	C
G	6	A, D
H	5	E, F

Requirements:

- (a) Draw the network diagram. **(12 marks)**
- (b) Calculate the minimum overall project completion time and identify which activities are critical. **(7 marks)**
- (c) If activity E is delayed by 3 days, how is the project completion time affected? **(3 marks)**

- (d) If activity F is delayed by 3 days, how is the project completion time affected?
(3 marks)

QUESTION 2

Plumtree Pet Foods Ltd is investigating three alternative investment projects, each involving an initial cost of \$10 million at a discount rate of 10% per annum. The pattern of net returns on the investments is shown in the table below:

<u>Project</u>	<u>A</u>	<u>B</u>	<u>C</u>
Year 1	4	0	8
Year 2	4	1	6
Year 3	8	8	4
Year 4	8	20	4
Year 5	8	20	4
Residual value after 5 years	2	3	0.5

(All figures in \$million)

The managing director insists on a three-year payback rule as an initial screening device. Thereafter, the net present value is used in project appraisal.

Which project should Plumtree Pet Foods Ltd choose? (25 marks)

SECTION B

QUESTION 3

You are the project manager on a project that has met all deliverables on schedule and on budget.

- (a) What must be done to ensure all work was completed correctly and satisfactory? (5 marks)
- (b) Suggest solutions to the requirement in (a) above. (20 marks)

QUESTION 4

There are several pricing techniques available in order to obtain detailed estimates to better control company scarce resources.

Briefly explain a logical sequence of pricing steps that an organisation may adopt.
(25 marks)

QUESTION 5

Good project managers realise that conflicts are inevitable and that procedures or techniques must be developed for their resolutions.

Discuss conflict minimisation procedures that project managers could adopt.

(25 marks)

END OF QUESTION PAPER