Uva Wellassa University

Faculty of Management

1st Year 2nd Semester Examination – June/July 2007

EMG 102 – 3 Project Management and Economics

- Answer **3 (three)** questions **including question number 05**
- Time : **1 hour and 30 minutes**
- Calculators can be used

Part A: Project Management

01.

i. What is a project?
ii. State the characteristics of a project
iii. List the stages of project cycle from its origin to completion.
iv. Briefly explain inputs, outputs, constraints and mechanisms related to a project.
v. What is a Work Breakdown Structure?
vi. Explain the importance of Work Breakdown Structures in managing a project

(16 marks)

02.

i. Why project planning is important?
ii. Briefly explain "Net Present Value" (NPV)
iii. Explain what is cash flow?
iv. A Company must decide whether to introduce a new project to improve its production. The new product will have startup costs, operational costs, and incoming cash flows over eight years. This project will have an immediate (t=0) cash outflow of Rs. 3,000,000. Other cash outflows for years 1-8 are expected to be Rs. 75,000 per year. Cash inflows are expected to be Rs. 180,000 per year for years 1-8. There are no cash flows expected after year 8. The required rate of return is 15%.

a). Calculate the NPV
b). Decide whether the company should invest in this project or not? Give reasons.

(16 marks)

03.

i. Briefly explain

a). Top down budgeting

b). Output based budgeting

ii. A farmer has 10 acres to plant chili and onion. He has to plant at least 7 acres. He has only Rs. 1200 to spend and each acre of chili cost Rs. 200 to plant and each acre of onion costs Rs. 100 to plant. The farmer has to get the planting done in 12 hours and it takes an hour to plant an acre of chili and 2 hours to plant an acre of onion. If the profit is Rs. 500 per acre of chili and Rs. 300 per acre of onion,

a) Formulate the objective function

b) Formulate constraints

c) Graph the constraints.

d) Find out how many acres of each should be planted to maximize profit and the maximum profit.

(16 marks)

04.

i. What is network analysis?

ii. Explain what are the events and activities?

iii. Write three rules of drawing networks

iv. What is a dummy variable?

v. Draw the network for the following problem

Activity	Preceding Activity	Duration
1	-	4
2	1	7
3	1	5
4	1	6
5	2	2
6	3	3
7	5	5
8	2,6	11
9	7,8	7
10	3	4
11	4	3
12	9,10,11	4

vi. Find the critical path

vii. Calculate the free floats

(16 marks)

05. Write short notes on two of the following

i. Project cycle

ii. Importance of project management

iii. Importance of budgeting

iv. Use of linear programming in managing a project **(18 marks)**

05. Write short notes on **three (3)** of the following topics

i. Production Possibility Frontier (PPF)
ii. Long Run Cost Curves
iii. National Income Accounting
iv. Economic Development in Sri Lanka during the last decade
v. Elasticity of demand **(18 marks)**