



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION**

**DEPARTMENT OF GOVERNANCE AND MANAGEMENT SCIENCES**

<b>QUALIFICATION : BACHELOR OF BUSINESS MANAGEMENT HONOURS</b>	
<b>QUALIFICATION CODE:</b> 08BBMH	<b>LEVEL:</b> 8
<b>COURSE CODE:</b> APM811S	<b>COURSE NAME:</b> ADVANCED PROJECT MANAGEMENT
<b>SESSION:</b> JULY 2024	<b>PAPER:</b> THEORY
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 100

<b>SECOND OPPORTUNITY EXAMINATION PAPER</b>	
<b>EXAMINER(S)</b>	Dr VUSUMUZI SIBANDA
<b>MODERATOR:</b>	MR. DANIEL KANDJIMI

<b>INSTRUCTIONS</b>
<ol style="list-style-type: none"><li>1. There are six questions, answer <b>any FOUR</b>.</li><li>2. Read all the questions carefully before answering.</li><li>3. Number the answers clearly</li></ol>

***PERMISSIBLE MATERIALS***

1. Examination question paper
2. Examination answer sheet
3. Calculator

**THIS QUESTION PAPER CONSISTS OF 4 PAGES (Including this front page)**

## Question 1

### Case Study: SunVille Solar Park Project

*EcoPower Inc.* is a fictional energy company that specializes in renewable energy projects. The company has recently acquired a vast stretch of land in SunVille, a small town known for its sunny weather throughout the year. EcoPower's ambitious project aims to transform this land into one of the region's most extensive solar parks, which could potentially power the entire SunVille town and its neighboring areas.

The SunVille Solar Park promises significant environmental benefits by reducing the region's reliance on fossil fuels. However, the project's scale means that a large portion of the acquired land, currently used for agriculture, will have to be repurposed. This transition will undoubtedly impact the local community, which primarily depends on farming.

While the local government is generally supportive of renewable energy initiatives, they're also concerned about the potential job losses in the agricultural sector and the change in the town's rural character. At the same time, environmentalists, although supportive of green energy, worry about the local flora and fauna being affected by such a large-scale installation.

EcoPower's investors are enthusiastic about the project's potential returns, given the increasing global emphasis on clean energy. However, they also emphasize the importance of smooth execution without significant delays, as such setbacks could affect projected returns.

Local businesses, especially those in the hospitality sector, see an opportunity. They believe that the solar park, if designed innovatively, could attract eco-tourists, leading to increased business.

Residents are divided. While some are excited about SunVille potentially becoming a landmark for clean energy, others, especially farmers, are anxious about their future. To navigate this complex scenario, EcoPower decides to create a Stakeholder Power/Interest Grid.

### Questions:

1. Identify up to ten (10) relevant stakeholders in the above project. **(5 marks)**
2. Using the identified stakeholders above, plot each stakeholder on the properly labelled Power/Interest Grid and indicate how each class/group of stakeholders must be managed. **(10 marks)**
3. How can EcoPower address the concerns of stakeholders with high interest but varying levels of power? **(2 marks)**
4. Considering the potential positive and negative impacts of the project, how should EcoPower prioritize its communication and engagement activities? **(4 marks)**
5. How might the Power/Interest Grid evolve as the project progresses, and how should EcoPower adapt its stakeholder management strategies accordingly? **(4 marks)**

## Question 2

A project has the following activities as shown in the table below where the project times shown as optimistic (a), most likely (m) and pessimistic (b) time estimates have been provided.

Activities	Immediate Predecessor	Optimistic Time	Most Likely Time	Pessimistic Time
A	-	2	4	6
B	A	1	3	11
C	A	1	2	3
D	B	3	4	5
E	B	2	5	8
F	C	1	2	9
G	D	1	3	5
H	E, F	3	5	7
I	G, H	1	2	9

**You are required to:**

- (i) Calculate the expected (mean) time for each activity **(5 marks)**
- (ii) Construct the project activity network using either AON or AOA methodology and label it. **(5 marks)**
- (iii) Identify the critical path and non-critical paths through the network. **(4 marks)**
- (iv) What is the earliest time that the project may be completed? **(2 marks)**
- (v) Calculate the total project variance **(4 marks)**
- (vi) Calculate the standard deviation of the project **(3 marks)**
- (vii) Calculate the probability of the project completing in 23 days **(2 marks)**



### Question 3

A company has N\$200 000 to be invested on either project A or project B with the following cash flows:

Year	Project A	Project B
1	N\$70 000	N\$10 000
2	N\$70 000	N\$30 000
3	N\$70 000	N\$60 000
4	N\$70 000	N\$132 000
5	N\$70 000	N\$40 000

The current cost of capital is 12%

#### You are required

- a) Calculate for each project the:
- (i) Simple payback period (4 marks)
  - (ii) Net Present Value (6 marks)
  - (iii) Internal rate of return (6 marks)
  - (iv) Profitability Index (4 marks)
- b) Based on your results in (a) above, advise the firm on which project to undertake. (5 marks)

### Question 5

- (a) As a newly appointed project manager, you have taken over a project that is running way behind schedule, explain at least ten steps you would take to recover that project? (20 marks)
- (b) Outline any **five (5)** reasons why projects fail. (5 marks)

### Question 6

Your company has won a tender for the construction of a new office building. Explain how you would use the Project Risk Analysis and Management (PRAM) process to help you manage potential risks in this project. (25 marks)

