



**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FACULTY OF APPLIED SCIENCES**

**DEPARTMENT OF APPLIED PHYSICS**

**PROJECT MANAGEMENT**

**SPH 2207**

**Second Semester Examination Paper**

**March 2025**

This examination paper consists of 3 pages

**Time Allowed: 3 hours**

**Total Marks: 100**

**Special Requirements: None**

**Examiner's Name: Ms E MUGABE**

**INSTRUCTIONS**

**ANSWER ALL PARTS OF QUESTION 1 IN SECTION A AND ANY THREE QUESTIONS FROM SECTION B. SECTION A CARRIES 40 MARKS AND SECTION B CARRIES 60 MARKS.**

**MARK ALLOCATION**

<b>QUESTION</b>	<b>MARKS</b>
1.	40
2.	20
3.	20
4.	20
5.	20
6.	20
<b>Maximum possible mark</b>	<b>100</b>

## SECTION A

1. (a) Define the following terms,
  - (i) Project [2]
  - (ii) Project management [3]
- (b) State any five project characteristics. [5]
- (c) What do you understand by “SMART” objectives in project management? [5]
- (d) Compare and contrast projects and operational work. [6]
- (e) Briefly explain the link between quality and project management. [5]
- (f) Discuss ways of reducing the project time. [5]
- (g) Outline the PMBOK, nine areas of knowledge. [9]

## SECTION B

2. (a) A project team is facing quality issues during execution. Using ISO 9000 principles, outline a systematic approach to identify the root cause and implement corrective actions. [10]
  - (b) All projects go through a similar life cycle. Identify the phases of the project life cycle and write short notes on each phase. [10]
3. (a) With reference to management, write brief notes on the following:
    - (i) Planning, [3]
    - (ii) Organizing, [3]
    - (iii) Controlling. [4]
  - (b) The purpose of team building is to improve group problem solving and group work efforts. (Discuss). Include the benefits and problems associated with working as a team. [10]
4. (a) Describe the following levels of management:
    - (i) Top management, [4]
    - (ii) Middle management, [4]

- (iii) Lower management. [4]
- (b) Describe the logical relationships between division of work, departmentalisation, hierarchy and coordination. [8]
5. (a) Outline the roles and responsibilities of a project manager. [10]
- (b) Discuss the control process and comment on the importance of having control measures put in an organisation. [10]
6. (a) Explain network analysis in project management tools. [8]
- (b) Discuss the six steps in network analysis using CPM and PERT. [12]

\*\*\*\*\***END OF EXAMINATION PAPER**\*\*\*\*\*