



***"Investing in Africa's Future"***

**COLLEGE OF ENGINEERING AND APPLIED SCIENCES**

**NCSE303: SOFTWARE PROJECT MANAGEMENT**

**END OF SECOND SEMESTER EXAMINATIONS**

**NOVEMBER 2024**

**LECTURER: DR. TENDAI ZENGENI**

**TIME: 3 HOURS**

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### ***INSTRUCTIONS***

You are required to answer questions as instructed.

Start **each** question on a new page in your answer booklet

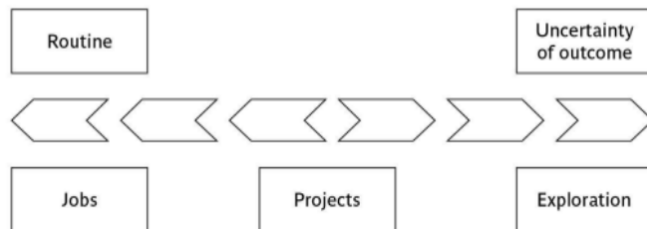
Answer **4 (FOUR) questions ONLY**

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Credit will be awarded for logical, systematic and neat presentations

1. Define Software Project Management and how would you apply the elements of this definition to your own project in terms of Knowledge, Skills, Tools and techniques. [25 marks]
  
2. a) Describe the Role and skills of a Project Manager (10 marks)  
 b) Discuss Process Maturity in terms of Software Project Management. (15 marks)
  
3. Discuss these 5 variables of Project Control
  - a) Time (5 marks)
  - b) Cost (5 marks)
  - c) Quality (5 marks)
  - d) Scope (5 marks)
  - e) Risk (5 marks)
  
4. a) What is a Project? What are its characteristics? (5 marks)  
 b) Describe this diagram based on jobs and projects. (5 marks)

## Jobs versus projects



- c) What is a Project Charter and when is it drafted? (5 marks)
- d) What Challenges can be faced during project execution? (5 marks)
- e) Why should the Project Manager always track progress and monitor the project? (2 marks)
- f) Can you just close a project without any procedures followed? Give your reasons (3marks)

5. Discuss **Only 5** of these Project Management Knowledge Areas
- a) Integration Management (5 marks)
  - b) Scope Management (5 marks)
  - c) Time Management (5 marks)
  - d) Cost Management (5 marks)
  - e) Quality Management (5 marks)
  - f) Human Resource Management (5 marks)
  - g) Communication Management (5 marks)
  - h) Risk Management (5 marks)
  - i) Procurement Management (5 marks)
6. Write a journal paper outlining the software project that you did. You need to capture all aspects of your scientific research paper. [25 marks]
7. a) Define the COCOMO Model where is it used (5 marks)
- b) Give one example of how to calculate EAF using a practical example of a software project. (5 marks)
- c) What are the Types of Projects in the COCOMO Model? (5 marks)
- d) What is the difference between COCOMO 1 and COCOMO 2 (5 marks)
- e) What is the Importance of the COCOMO Model (5 marks)

**END OF EXAMINATION**