



UNIVERSITY OF GHANA

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SCHOOL OF ENGINEERING SCIENCES

BSc. (Eng) MATERIALS SCIENCE AND ENGINEERING

SECOND SEMESTER EXAMINATIONS 2014/2015

MTEN 404-PROJECT MANAGEMENT (2 CREDITS)

TIME- 2 HRS

ANSWER ALL QUESTIONS

1.

- a. The selection of a **Project Manager** is one of the most important decisions in project management. **State five (5) attributes & qualities of a Project Manager. [5 marks]**
- b. You have been employed at Monolo Plant Ltd as a project manager. Your first project is to build an office complex for a client who deals in cars. As the project manager what steps will you take in the project management process in order to execute the project effectively? **[4 marks]**
- c. State 3 managerial skills that you must possess as a project manager. **[3 marks]**
- d. Briefly explain the term work breakdown structure and state 6 benefits of work breakdown structure in relation to the management of a project scope. **[8 marks]**

2.

- a. Briefly explain the term "Project" according to the ISO 10006 Standard. **[2 marks]**
- b. What is "Engineering Project management"? **[2 marks]**
- c. In engineering project management, the following hierarchy is necessary for the execution of a project: Top-level management, Middle managers and first line managers. Give two (2) examples of personnel in each level and briefly state the three (3) job descriptions of the Middle managers and first line managers. **[8 marks]**

3.

- a. A Project is Planned & implemented in an environmental context. Briefly discuss (3) project environments that must be considered in project management. **[6 marks]**
- b. Briefly explain the term project life cycle (PLC) and describe the 4 phases of a project life cycle. **[6 marks]**

Examiner: Dr. David Dodoo-Arhin

- c. Discuss time management associated with project management. [2 marks]
- d. Explain the following terms associated with time management: “Critical Path Method (CPM)”, “Graphical Evaluation and Review Technique (GERT)” and “Program Evaluation and Review Technique (PERT)”. [8 marks]

4.

- a. Briefly explain the term “project scope management” and state the three (3) philosophical steps in management by objectives. [5 marks]
- b. State the four (4) types of task relations and the two (2) methods that can be used to draw network diagrams. [3 marks]
- c. Define the following terms as associated with project scope management and state two (2) each of the **inputs, tools and techniques** and **outputs** required to execute each of them.
 - i. Scope Planning
 - ii. Scope Definition
 - iii. Scope Verification [12 marks]