

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF APPLIED SCIENCE
COMPUTER SCIENCE DEPARTMENT
DECEMBER EXAMINATIONS 2005

SUBJECT: STRUCTURED SYSTEMS ANALYSIS AND DESIGN
CODE: SCS2104

INSTRUCTION TO CANDIDATES

Answer all questions in both sections

Time: 3 hours

Section A

QUESTION ONE

- a) SPMP acts as a compass to guide software development initiatives.
Discuss and explore all the components of SPMP. [10]
- b) JSP is a component of JSD. Discuss. [5]
- c) Software engineers do not agree on the number of SDLC phases and terminology used. Some terms used in different approaches are the same, but they do have different meanings. Carefully analyze and advise on the circumstances that led to these confusions. Is there any common understanding that bounds software engineers together? [5]

QUESTION TWO

- a. Why does SSADM place a lot of emphasis on analysis and design? How does it differ from the old approaches? [10]
- b. A data store is never allowed to initiate communication. Evaluate the merits and demerits of the statement and discuss other similar rules. [10]

- c. Compare and contrast YSM, STRADIS, and Information Engineering to SSADM [10]
- d. How useful are terminal spoofs in the present generation of computing. Discuss vividly any uses of this concept. [5]

Section B.

QUESTION THREE

Discuss in detail all the phases of the JSD, giving examples where possible. [15]

QUESTION FOUR

POLA is touted as a solution to security concerns of processes. Explain the concept using the following key terms: Authentication, Authorization, User level and Process level. Identify and discuss in detail two systems that implement POLA. [15]

QUESTION FIVE

- a) A prototype can never be used as a basis of a contract between a client and a developer. Discuss [10]
- b) Compare and contrast a prototype to a specification document. [5]

END OF QUESTION PAPER