



**THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE**

*Faculty of Engineering & Technology*

**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**HIGHER DIPLOMA IN COMPUTER STUDIES**

**FINAL EXAMINATIONS**

**APRIL/MAY 2010 SERIES**

**INFORMATION SYSTEMS ANALYSIS & DESIGN**

**TIME: 2 ½ HOURS**

**Instructions to Candidates**

1. Answer a total of **FOUR** Questions.
2. Answer **ONE** Question from each of the Sections **A** and **B**
3. Answer Question 5 and any other in Section **C**.

**SECTION A : ORGANISATION BEHAVIOUR**

**Question ONE**

- (a). Discuss **FIVE** variables affecting leadership effectiveness in an organization. **(10 Marks)**
- (b). Explain the main forces of change facing organizations today. **(10 Marks)**

**Question TWO**

- (a). Discuss **FIVE** causes of intergroup conflict in organizations. **(10 Marks)**
- (b). Change is inevitable in an organization. Highlight **FIVE** reasons why people resist change. **(10 Marks)**

**SECTION B : COMMUNICATION SKILLS**

**Question THREE**

- (a). Explain any **FIVE** functions of non-verbal communication. **(10 Marks)**
- (b). Identify **FIVE** advantages of written communication. **(10 Marks)**

**Question FOUR**

- (a). Examine any **FOUR** speech styles. **(10 Marks)**
- (b). Discuss **FIVE** advantages of communication in an organization. **(10 Marks)**

**SECTION C**

**Question FIVE**

- (a). Define a system. **(2 Marks)**
- (b). Explain the objectives of a Data Flow Diagram (DFD) as used in structured systems. **(4 Marks)**
- (c). Explain the **THREE** perspectives of data as used in SSADM. **(6 Marks)**
- (d). Describe the conversion of a current Physical DFD to a current Logical DFD. **(6 Marks)**
- (e). Explain the following with respect to SSADM.
- (i). Prescriptive
  - (ii). Reductionist
  - (iii). Data oriented design
  - (iv). Cross-checking
- (12 Marks)**

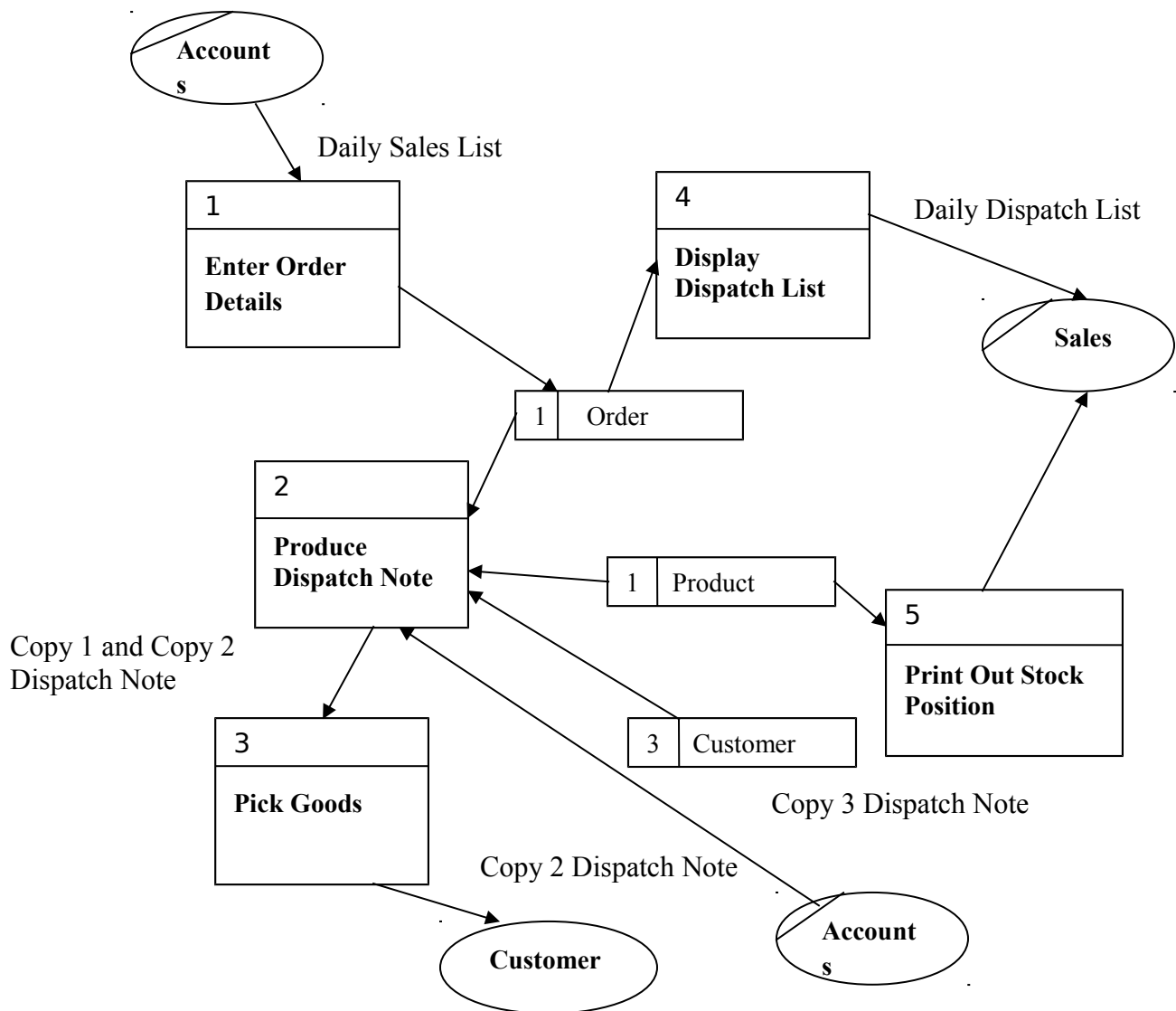
**Question SIX**

- (a). Draw a Context diagram for the following system. **(14 Marks)**

The purpose of the “Textbook Inventory System” at a campus bookstore is to supply textbooks to students at a local University. The University’s academic departments submit initial data about the courses, instructor, textbooks and projected enrolments to the bookstore on a *Textbook Masterlist*. The bookstore generates a Form 17 Purchase Order, which is sent to publishing companies supplying textbooks. Book orders arrive at the bookstore accompanied by a *Packing Slip*, which is checked and rectified by the receiving department. Students fill out a *Book Request Form* that includes course information and their identification details. When they pay for their books, the students are given a paper tape *Cash Register Sales Receipt*.

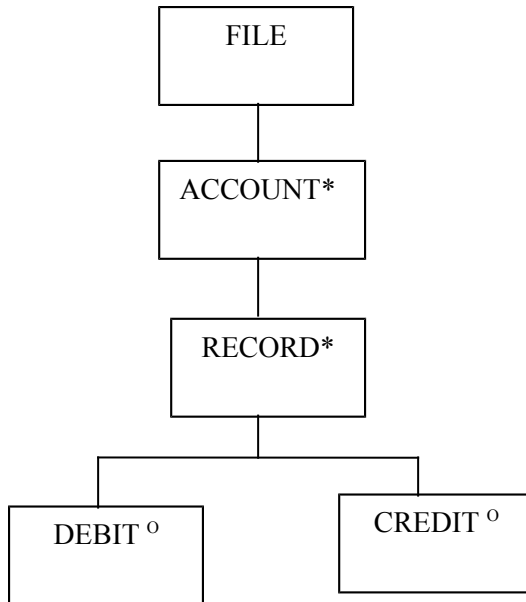
**(6 Marks)**

- (b). Identify **SIX** errors and how they can be rectified in the diagram below.

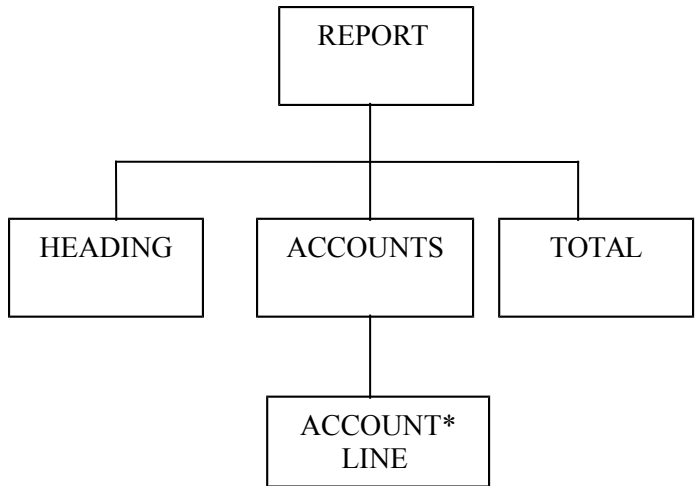


**Question SEVEN**

- (a). List the **FIVE** Michael Jackson Structured Program Design (MJSPD) stages. **(5 Marks)**
- (b). Construct a single program structure from the two structures below.



**Input Data Structure**



**Output Data Structure**

- (c). Explain the rationale of your structure.

**(8 Marks)**

**(7 Marks)**