451/3 COMPUTER STUDIES PAPER 3 (Project) March to September 2015 7 months



THE KENYA NATIONAL EXAMINATIONS COUNCIL Kenya Certificate of Secondary Education Computer Studies Paper 3 (Project) 7 months

## **Instructions to candidates**

- (a) Candidates are expected to use a Database Management System when developing their projects.
- (b) A softcopy of the work done must be stored in a removable storage medium (CD-R).
- (c) Your name and index number should appear on the cover page of your documentation and on the storage medium.
- (*d*) Each candidate should hand in a hardcopy and a softcopy of the project documentation.
- (e) Candidates should answer the questions in English.

This paper consists of 3 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

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## MUUNGANO GROUP FURNITURE MANAGEMENT SYSTEM

Muungano Group is a self help group made up of school leavers. The aim of this group is to become self-reliant and attain financial independence by engaging in furniture making.

They make tables, beds and seats. The types of tables made are dinning tables, office tables, kitchen tables and coffee tables. The types of beds made are double-deckers, single beds and double beds. The types of seats made are arm chairs, classroom chairs, office chairs and benches. The materials used in making the furniture are nails, varnish, glass, fabrics and cushions.

The group employs two permanent carpenters. Each carpenter can handle four jobs at any given time. Temporary carpenters are hired when there is an excess of at least four jobs for the two carpenters. The temporary carpenters are supervised by the permanent ones who share jobs as they come.

Each permanent carpenter is paid as follows: a monthly salary of Ksh. 5,000, a 2% commission for all the jobs completed and a further commission of 1% for all the jobs supervised in the month. A temporary carpenter is paid a commission of 3%. Commission rates are based on the selling price of the completed item. The minimum selling price of an item is 170% of the cost of materials used to make the item.

Temporary carpenters are expected to use their own tools. Those without tools may hire from the group at a fixed rate per tool per day. Any damage or loss of a tool is surcharged.

Upon making an order, a customer is categorised as either "Gold" or "Silver". Gold customers are those who make bulk orders while the rest are silver customers. All customers are expected to make a commitment fee of at least 40% of the selling price of the item ordered before the commencement of the work. The silver customers must clear the balance before delivery of the completed item and are charged for delivery based on distance to the destination. Gold customers have their items delivered for free and may clear the balance later. All customers are expected to collect completed items on specified dates. Any item not collected on the specified date attracts a daily storage charge.

The group's operations have been manual and the management has recommended for computerization.

Develop a computerized system with its documentation for the Muungano Group. The system should be able to:

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- (a) Muungano Group members;
- (b) customers;
- (c) tools;
- (d) carpenters;
- (e) materials purchased for making the furniture.
- 2. Maintain customers' orders.
- 3. Compute the following:
  - (a) selling price per item;
  - (b) commitment fee;
  - (c) tool hire charges;
  - (d) storage charges;
  - (e) tool damage charges;
  - (f) delivery fee;
  - (g) profit per item.
- 4. Compute the following:
  - (a) commission for a hired carpenter;
  - (b) gross pay per month for a permanent carpenter.
- 5. Generate the following:
  - (a) payment receipts;
  - (b) invoices.
- 6. Compute and generate monthly summaries.

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