

451/3
COMPUTER STUDIES
Paper 3
(Project)
March to September 2016
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 Database Management Systems in developing their projects.*
- (b) *A softcopy of the work done must be stored in a removable storage medium.*
- (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.

MASHINA RESIDENTS REGISTRATION SYSTEM

A regional government wishes to create a database for its population based on employment details, residence and land details so as to enable planning, security and other policy decisions. In order to accomplish this objective, the regional government embarked on capturing information on employers, employees, residents and land use.

Each employer is required to register with the government. During registration, employers are required to provide their physical location details which include the registration number of the land where they are located and area of specialization such as farming, manufacturing and business among others. For those in employment, details of their occupation such as name of the employer and salaries are captured.

Self-employed individuals are also required to provide details of their occupation and income.

All workers, residents, business people and land owners are required to provide amongst others occupation and physical address.

All land details in the region are captured. They include land registration numbers, owner details, location, size, use among others.

Design a well documented database system to do the following:

- (a) Generate list of employees by occupation.
- (b) Generate list of residents by location.
- (c) Generate a report showing all employers with their respective number of employees in a descending order.
- (d) Compute percentage of land in terms of usage.
- (e) Compute average earnings per occupation.
- (f) Categorise each employee based on annual income as follows:

| Income (Ksh) | Category |
|--------------------------|----------|
| Less than 35 000 | Low |
| From 35 000 to 1,500,000 | Middle |
| Greater than 1,500,000 | Upper |

- (g) Compute the number of people per household.

(h) Categorize each resident based on age as follows:

| Age (years) | Category |
|--------------------------|-----------------|
| Less than or equal to 12 | Child |
| From 13 to 18 | Youth |
| over 18 | Adult |