

451/3
COMPUTER STUDIES
Paper 3
(PROJECT)
March to September 2017
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) *Candidate's name and index number should appear on the cover page of the 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.

MWANZO BARAKA MANAGEMENT INFORMATION SYSTEM

Mwanzo Baraka organisation is a self help group intended to improve the economic status of its members through pooling of financial resources. The organisation sustains itself through registration fees of its members, monthly contributions, interest accrued through loans given to members, and penalties for delayed payments. The members benefit by getting cheap loans from the organisation.

Membership to the organisation is by registration. There are two types of membership; individual and group. Group membership constitutes two or more individuals who have common interests. An individual member pays a registration fee of Kshs. 2,000 while a group pays Kshs. 5,000. During the registration of individuals, personal details are captured. When registering a group, details of the group and those of its individual members are captured.

An individual member contributes a monthly share of not less than Kshs. 1,000 to the organisation. For those registered under a group, each member contributes a monthly share of not less than Kshs. 1,000 where Kshs. 200 is the group share contribution by the member. All monthly contributions are treated as shares for the contributor and attract annual dividends.

Members can borrow loans from the organisation based on their total shares. Members registered as individuals can be loaned up to three times their share contribution. The repayment period does not exceed three years and the loan attracts interest at a rate of 1.2% per month on the principal amount borrowed. Members registered under a group can be loaned up to four times their individual share contribution. The repayment period does not exceed four years and the loan attracts an interest at a rate of 1% per month on the principal amount borrowed. A group can also get a group loan, amounting to three times the group's total share contribution which attracts interest at a rate of 0.8% per month payable within five years. All payments to the organisation are monthly and must be made by the last day of the month. Any defaulted payments are penalised at a rate of 10% per month.

Every end of the year, the organisation determines the total interest charged on all loans and total penalties on defaulted amounts. 60% of this amount is paid as dividends to the shareholders each getting an amount proportional to their total share contributions. The balance is retained to run the organisation.

Design a computerised database system with its documentation for the Mwanzo Baraka organisation that should be able to:

1. Maintain records of members and groups.
2. Maintain records of registration fees.
3. Maintain records of monthly contributions.
4. Maintain records of loan borrowed.
5. Compute loan repayments and interest.
6. Compute income for the organisation.
7. Compute dividends to each shareholder.
8. Generate reports on demand.

(100 marks)

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