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Grade 9 and 12 exams: Marking, Coding and Data Management

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Presentation outline

- Background and context

- Purpose of presentation

- Overview of findings

- Questions / Comments

Background and context

- To review Grade 9 and 12 marking processes
- To recommend areas in need of improvement

- Process:
  - Site visits at marking centers
  - Observation of marking and data entry
  - Review of marked papers, memos and exams papers
  - Interview with markers, TL and Chief Examiners

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Site visits

- Grade 9
  - Kafue's Naboye High
  - Kabulonga Girls and
  - David Kuanda

- Grade 12
  - LIBES
  - Livingstone Teacher College
  - Monza Agricultural College

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GRADE 9

Grade 9 - Overview

- 86 centres spread over the country.

- Over a five day week directly after examinations

- Marking schemes/keys are checked and co-ordinated by marking panels at each centre before marking started

- Markers are expected to mark the same number of scripts

- Chief and Deputy markers QA scripts

- On the last day markers enter and code the marks on the marksheets that are sent to ECZ to be scanned.

- Checklists printed to check correctness of captured marks and to identify marksheets/marks not entered.

- Moderation involves checking on how marking keys were revised in various centres since co-ordination is not standardized.

- Since 2004 statistical moderation has been done by ECZ.

Marking

- Of a high standard and minimum inconsistencies were found. However, differences in marking may occur because marking keys are revised in individual centres and not standardized across the country.

- Recommend - a sample of scripts are marked at a central venue after which the marking key is finalized and sent to the marking centres. All centres should then keep to this finalized marking key to ensure the same standard of marking for all candidates.

Entering of candidates information

- The problems encountered by the use of shading and scanning of candidates information could be addressed by developing a system through which information can be entered directly from the learners registration forms on to an electronic database.

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Entry of marks

- time consuming process and not always reliable

- Need a system through which information is entered directly from the scripts on the database.

- e.g. data capturer at each marking centre

- e.g. develop support centres in provinces/districts to assist with the whole process of data processing. Entering of marks can then be relocated to these centres.

Insufficient time for marking:

- Very difficult to complete the marking of scripts in one week especially as the number of candidates increase every year.

- The standardization of marking keys before marking process starts and the scrapping of the process in which teachers had to enter and shade/code marks on marksheets will increase the time available for teachers to mark scripts.

- The time required to mark scripts in different subjects varies and should be taken into account

Training of markers;

- Chief markers complain that markers are not trained and that they did not have sufficient experience

- It is suggested that a progamme should be developed to assist teaches/student teachers to develop the skills necessary for marking by using demo scripts in training workshops/teacher training during the year.

- The problem of teachers losing trained markers to other institutions could be addressed by improving the payment and conditions for marking.

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GRADE 12

Grade 12

- **Structure of marking centre:**
  - Each marking centre is managed by an ECZ co-ordinator.
  - Each subject is supervised by a Chief Examiner. The examiners are divided in panels of about five markers managed by a team leader

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Process of marking:

- Marking are done centrally per subject in 14 marking centres.

- Scripts for each subject are distributed to marking team

- A two day process of coordination of marking precedes the marking process

- Team leaders randomly select at least 10% of the scripts for moderation

- A report on the performance each examiner is compiled by TL and chief examiners

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Reports

- An *Examiners Report on Standards* compiled for ECZ by the Chief Examiner (in consultation of fellow markers) in each subject to assist the awarding committee to fix standards in the subject. They comment on the (a) difficulty (b) validity (c) clarity and (d) syllabus coverage of the paper. They should also form an opinion on the general performances of the candidates and make recommendations (derived from the tallies on the *Examiners Mark Distribution Sheet*) with regard to the minimum marks required for the different Grades.

- A report on learner performance in each subject is prepared for teachers. The report analyses the difficulties experience by candidates in each question and highlights the strengths and weaknesses of candidates. The reports for all subjects are combined in one booklet and sent to the schools with the purpose to strengthen the teaching and learning process.

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Data entry

- Entering of results was done for the first time electronically at the marking centres.

- Entering is done by staff from ECZ.

- A printout is produced for each examination centre after which the correctness of entered data is checked by the team leaders/markers.

- The system of checks and balances to ensure that marks entered are correct is good. All data entered at one centre will be collected on one computer and then merged into one dataset at ECZ.

Marking

- Marking in the centres visited is of a high standard and inconsistencies are dealt with appropriately.

- The process of revising the marking keys before and during the two days of coordination before marking starts is excellent.

- The report on the standard of examiner' marking, completed by team leaders and chief examiners, also contribute to achieving high levels of consistency in marking.

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Reports to schools

- The extent to which the report on learner performance is used by teachers should be investigated. This report could be a very powerful tool to improve the standard of education if it is interpret correctly and the knowledge on strengths and weaknesses of students are incorporated into the teaching and learning process.

Retention of experience

- The reason for dropout of experienced examiners should be established and addressed. Contributing factors - remuneration.

- Examiners feel that the rate per script is not competitive and as soon as examiners gain experience they are snatched up by other institutions that pay more. The fact that the examiners with more experience, that should be able to mark faster, do not return after two or three years put more strain on the inexperienced slower markers.

- The cost of constantly training new markers that are leaving the marking system after two or three years should be taken into consideration when the payment for markers is reviewed.

- Examiners feel that they should also receive an allowance per day for the days that they are at the marking centre and that this should be in line with the amount that they should be entitled to when working away from their home base.

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TL & Chief Examiners

- The remuneration of chief examiners and team leaders are to low resulting in them marking scripts to increase there income. They should be paid enough so that they can concentrate only on checking the marking of other examiners. The examiners in Computer Studies are not compensated for evaluating the practical part of the examination.

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General

- There was a request that examiners should be exposed to international experience, e.g. one or two chief examiners visit other countries to compare practices used by other countries with their own procedures.

- More time should be provided for setting of papers and marking schemes. The limited time available for setting the papers and for proofreading resulted in a lot of errors and errata as well marking schemes that do not have enough detail. Graph paper should be provided for the Mathematic papers.

- The accommodation conditions are not always satisfactory. The fact that up to four examiners had to share a room and the lack of soap and warm water in some centres were mentioned.

- A computer should be provided for the marking of computer studies so that the chief examiner can follow up on practical answers.

Data entry

- The problems encountered in the evaluation of the examination procedure for the Grade 9 examination with the use of shading and scanning of candidates' information and marks are already addressed by ECZ by introducing a system through which candidates' information are entered electronically at school level and where marks are entered directly from the learners examination papers on to an electronic database.

- Although this is a big step forward the process should be scrutinized to identify ways in which the process could be improved.

Addressing data entry challenges

- More computers and manpower - to prevent the backlogs at the point of data entry.

- Data capturers experience and speed should be considered in selection

- Data entry room should be big enough to organise scripts for each team leader separately to facilitate retrieving of scripts.

- The ECZ co-ordinator at a centre should not be used as a data capturer.

- Problems with data entry - search function did not always work properly which makes it difficult to identify examiners at all times.

- Current system did not allow data capturers to track progress of entry

- A back-up system should be put in place. For the moment backing up on memory sticks should be sufficient. For the long term a system in which data are sent on a regular basis (e.g. twice a day) to the ECZ office should be put in place. This can also serve as a way to track the progress in the different centres on a daily basis.

- The software programme that is currently used for data entering should be investigated and compared with other data entry programmes to ensure that the most feasible programme is used in future.

- The virus problem should be resolved.

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Questions / Comments

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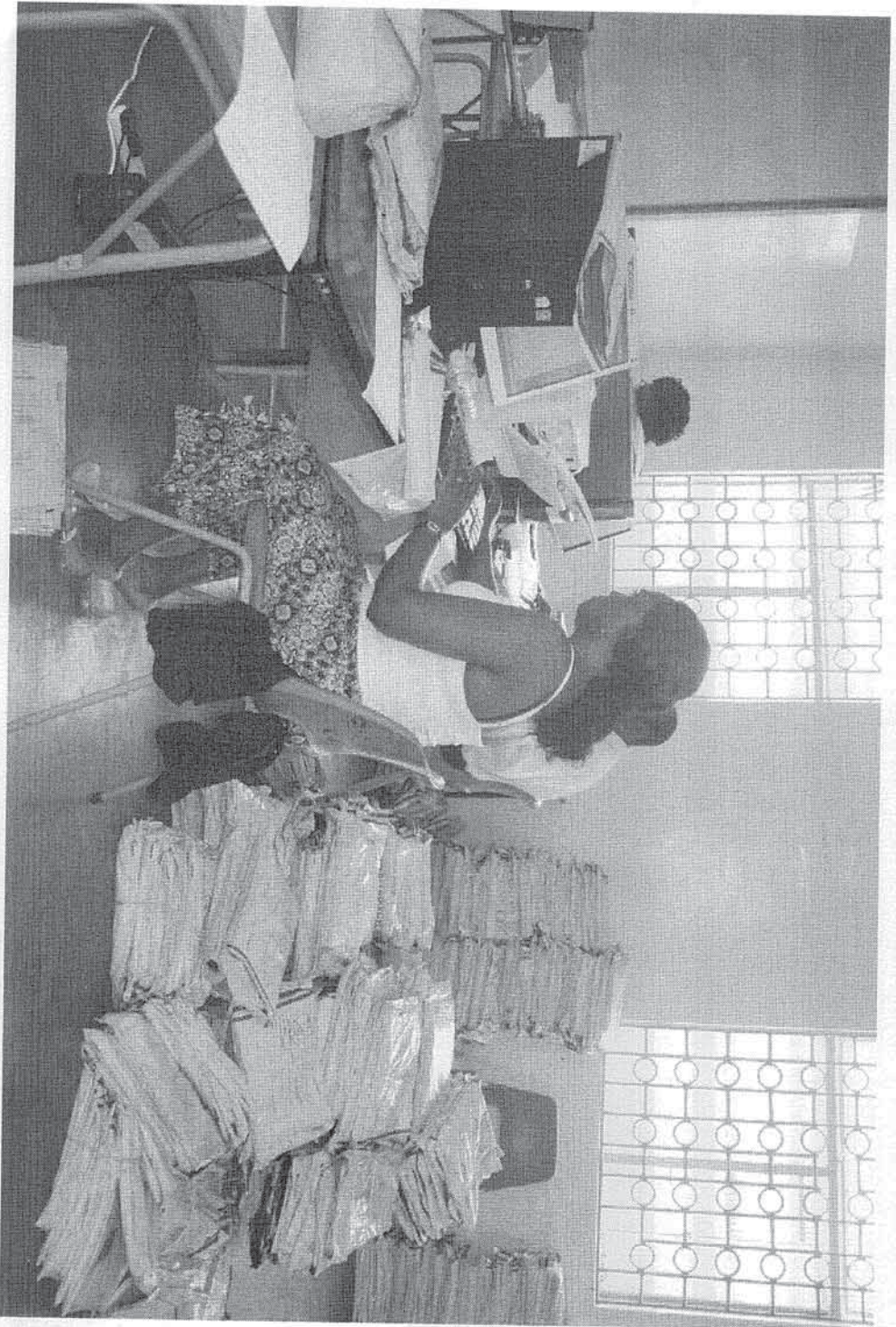LIVINGSTONE INSTITUTE OF BUSINESS AND ENGINEERING STUDIES
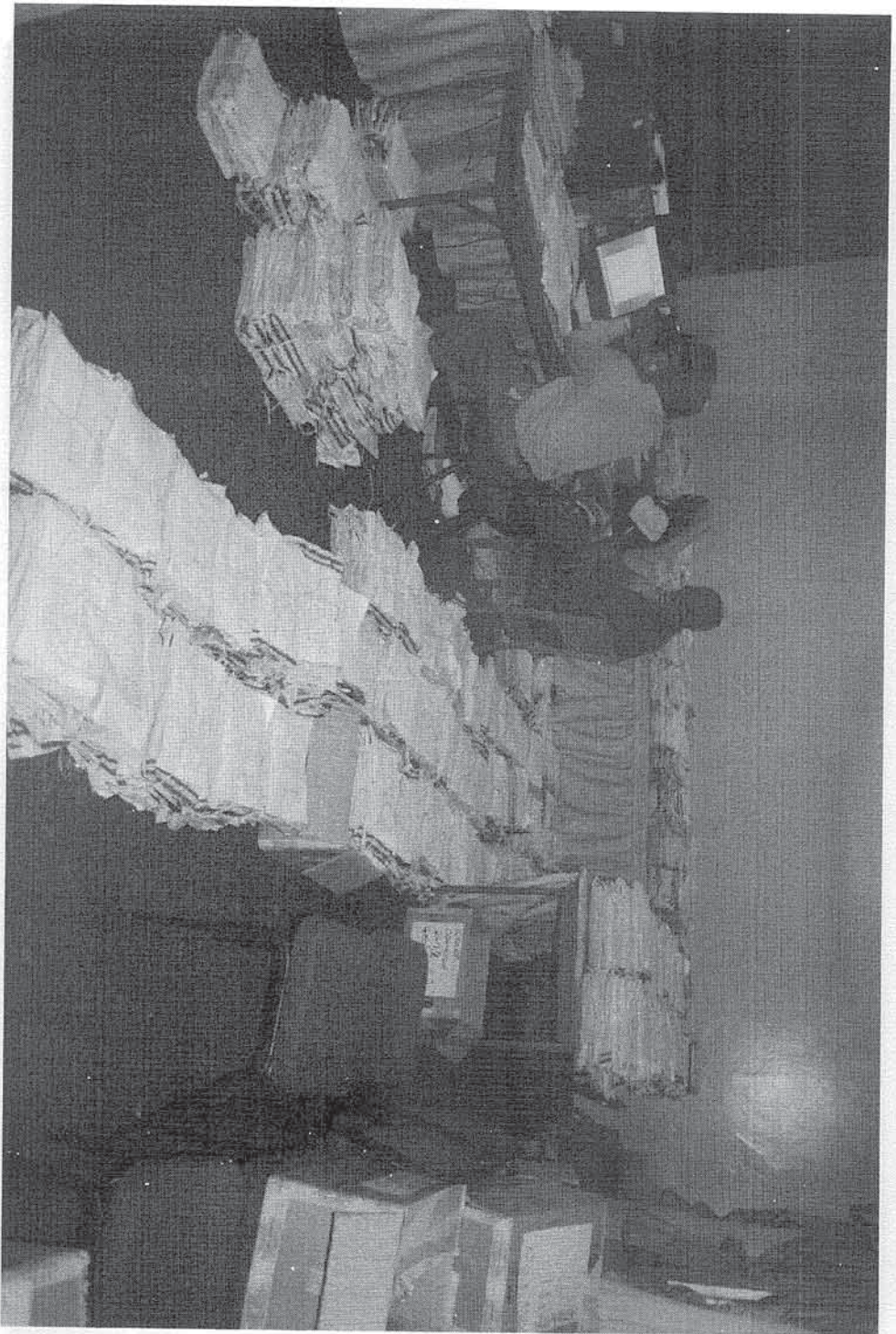P.O.BOX D 27. LIVINGSTONE. ZAMBIA

ADMINSTRATION

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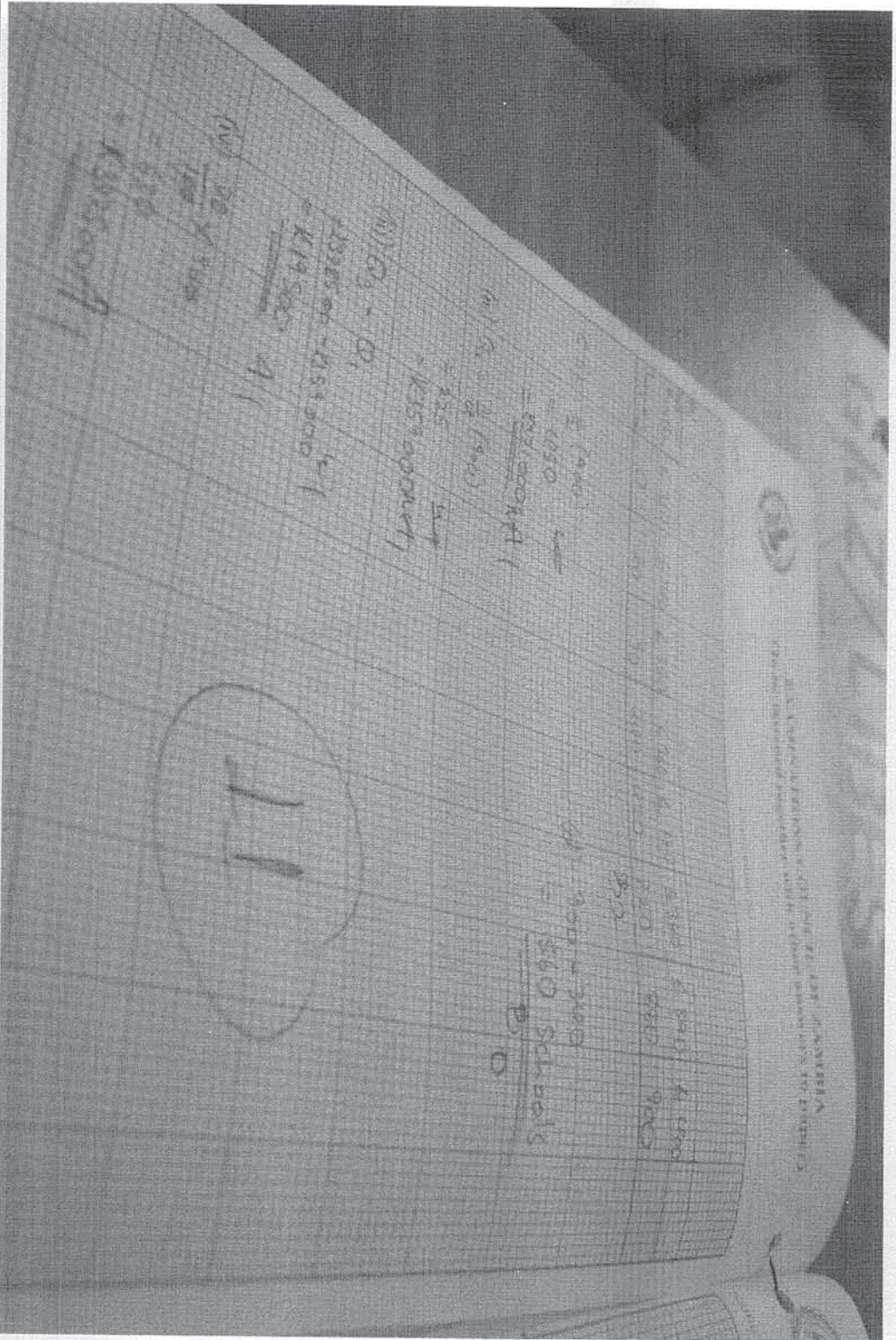LIBES centre – Tuesday 5 Jan 2010

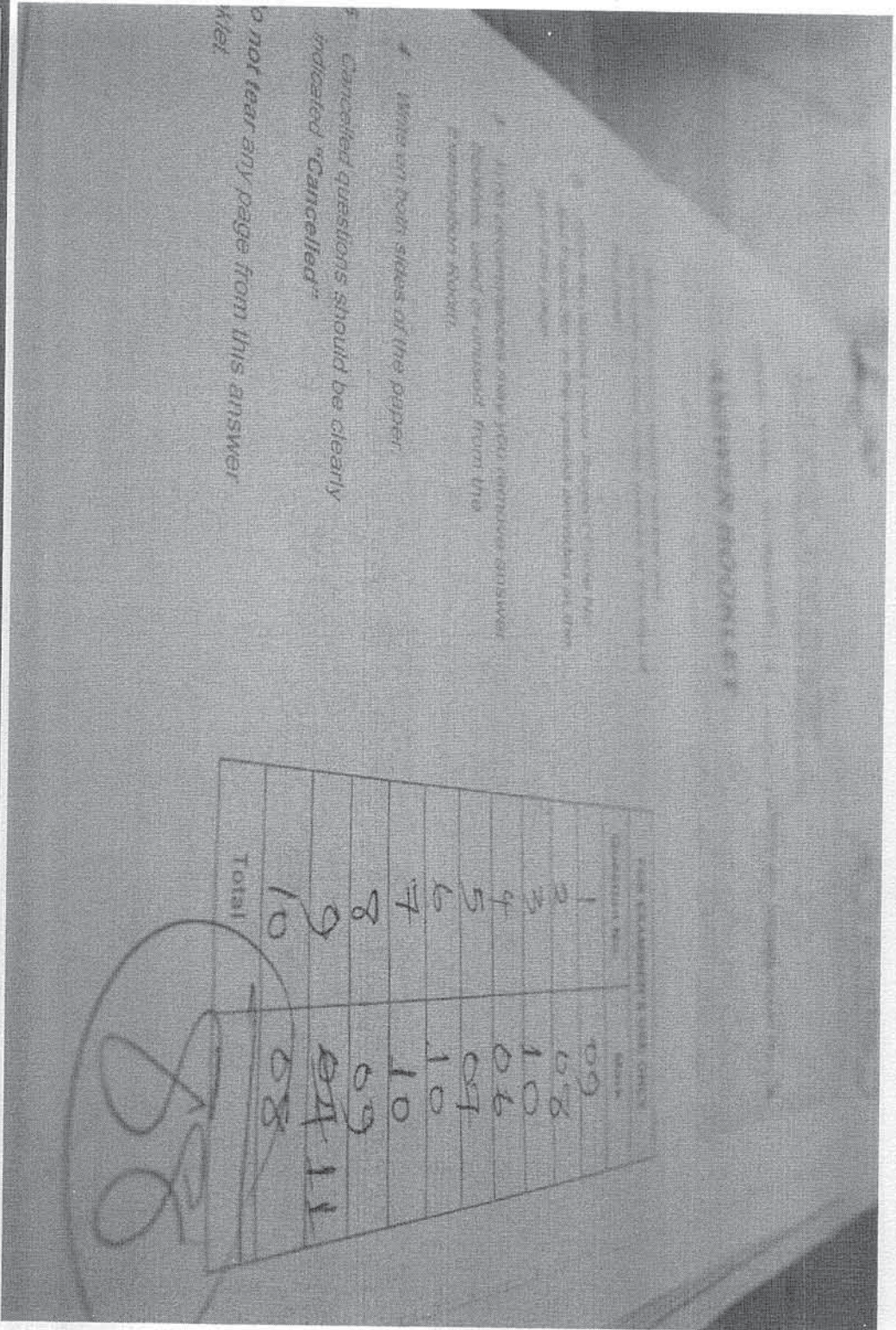Monza centre – Saturday 9 Jan 2010

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Maths P2 – 6 Jan 2010

Maths question

Marked script

Marked script

EXAMINATIONS COUNCIL OF ZAMBIA
Joint Examination for the School Certificate
and General Certificate of Education Ordinary Level

SUBJECT NAME: Mathematics 1 C

CENTRE NUMBER...

ANSWER BOOKLET

1. Write your name, centre number and
    candidate number in the spaces at the top of
    this page.

2. Write the Subject name, Subject Code No.
    and Paper No. in the spaces provided at the
    top of this page.

3. In no circumstances may you remove answer
    booklets, used or unused, from the
    Examination Room.

4. Write on both sides of the paper.

5. Cancelled questions should be clearly
    indicated "Cancelled".

6. Do not tear any page from this answer
    booklet.

16 printed pages

FOR EXAMINER'S USE ONLY	
Question No	Mark
1	04
2	01
3	00
4	01
5	02
6	00
7	03
8	01
9	00
10	00
11	00
12	00
Total	15

Livingstone College 6 Jan 2010

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Questions?
Comments?

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