

Security of Examinations

Sandhya Chakowa
Mauritius Examinations Syndicate
Johannesburg April 2015

Context

- Free education at primary and secondary levels
- Compulsory schooling until age of 16
- Very strong examination culture
- Highly competitive examinations at the end of the primary and secondary cycles
- Private tuition/coaching - parallel system

Mauritius Examinations Syndicate

- Creation in 1984
- Government's concern for security and confidentiality
- National Commission on Education in 1983
- Creation of a single body to be responsible for all administrative and professional aspects of examinations

Main Responsibilities in 1984

Conduct of examinations

Paper setting and printing

Marking and Computerisation of marks

Processing of entries, results and award of certificates

Examinations conducted by the MES

National Examinations

Certificate of Primary Education (after 6 yrs primary)-
23 826 candidates

Cambridge School Certificate(after 5 yrs secondary) –
19 586 candidates

Cambridge Higher School Certificate (after 7 yrs secondary) –
12 723 candidates

(The figures given are for the 2014 exam session)

Conducts of exams on behalf of about 70 overseas institutions

- University Examinations(UNISA, MANCOSA, University of London, various universities in UK, India and other countries)
- Professional Examinations (ACCA, City and Guilds, British Computer Society(BCS), Association of Business Executives (ABE), ABRSM)
- Competitive Examinations (Medical and Dental Council, Promotion and Recruitment in the Civil Service or para-statal bodies)

Receipt of Question Papers

- Question Papers arrive in sealed containers
- Question Papers sealed in tamper evident envelopes
Centre packing to avoid handling and classification of envelopes
- Collection at airport in the presence of police officers
- Police escort from airport to MES

Storage of Question Papers

- Strong Rooms under lock and key
- 3 locks 3 keys held by 3 officers
- Have to be present whenever the Strong Rooms are opened
- Strong Rooms under constant closed circuit video monitoring
- 24 hr police sentry from receipt, storage until end of examinations
- 24 hr security check and control on MES premises all the time

Distribution of Question Papers

- Question Papers collected from MES by a coordinator and an assistant coordinator
- Distribution to a number of examination centres (3-5)
- A supervisor and an assistant supervisor receive the papers at the examination centre
- Papers kept under lock and key until 15 mins before the start of the exam
- Keys kept by the supervisor and his assistant

Tracking of Question Papers

- Inbuilt mechanism with a series of « *issue of question paper* » slips, receipts and logbooks
- Monitor and track envelopes of QPs from the time they leave the MES until the end of the examination
- All the envelopes are numbered

Arrangements in Exam Centres

- Setting of exam rooms
 - 1.25 mts between desks
 - 2 mts (for papers with MCQ)
- Not more than 20 candidates per room
- 2 invigilators per room even for 1 candidate
- Identity check – student identity card on desk
- Seating plan for each exam sent to exam board

- All bags placed outside the room
- Mobile phones strictly not allowed
- Placed in bags outside
- Transparent pencil cases
- Posters displayed outside rooms regarding mobile phones + warning

- Compulsory announcement before the start of examination
- Reading instructions
- Sanctions regarding cheating
- Warning concerning mobile phones

Candidates caught with a mobile phone during the examination are heavily penalised and do not get their results for that subject.

Conduct of Exams

- Police presence in all exam centres throughout the conduct of exams
- Question papers opened in the exam room in the presence of candidates
- 2 candidates sign on the envelope to certify that the envelopes were sealed

- After exams, scripts collected, checked and put in tamper evident sealed envelopes
- In the presence of the Supervisor, Assistant Supervisor and 1 Invigilator
- They countersign on the envelopes and enter the time

- After exams Question Papers are also collected
- Given to candidates the next day
- To respect the 24 hr rule
- To avoid leakage in case the paper is taken in another country later

Sealed envelopes collected by Coordinator and Assistant
Coordinator in the presence of two persons Supervisor/Assistant
Supervisor/Invigilator

They countersign on the envelopes and enter the time

At the MES envelopes are checked and kept in Strong Rooms

Packed on next day

Despatched to Cambridge or other exam board on next available
flight

Cases of cheating and Measures taken

Disclosure of information regarding Science Practicals (Cambridge Examinations) on social networks

- Time Zone – 4 Globe Zones
Different Papers for each Zone
- Key Time – For each Zone there is a specific time when candidates remain in the centre under supervision whether it is before the scheduled time of exam, during or after the exam
- Prevent communication of information to candidates in another country but same zone taking the same paper

- Books hidden in the toilets
- Candidates taking turns to go to toilet
- Suspicion of invigilators aroused

- Toilets numbered and checked in the morning by the Supervisor
- Candidates sign a form when they go to the toilet
- Accompanied by invigilator

Specific Arrangements regarding all those involved in exams

- All officers of the MES take an oath of secrecy at the District Court
- Declare wards for any exam held during the year
- Non -MES staff involved in the administration of exams, paper setting, marking, processing of marks also take an oath of secrecy and declare wards
- Invigilators sign a secrecy form and submit a certificate of morality

- Manual of procedures regularly updated
- Instructions for the different categories of staff involved
- Regular briefing/training sessions by MES officers on
 - regulations and instructions to be followed
 - arrangements regarding specific exams (practicals, listening, speaking)
- Sanctions under MES Act for those not abiding by the rules

Paper Setting

- Limited no of persons involved
- Teachers not selected as paper setters
- Paper setters from tertiary institutions or retired professionals
- Secure confidential typing pools
- Log book to record names, time in and out etc
- Record of progress on papers and all drafts with changes made kept
- Confidential question bank

Printing

For high stakes exams (CPE) papers are set at MES

Final papers are encrypted

Sent by secured direct mail to the confidential printers in UK

Printed and packed by confidential printers in UK

For School Certificate , locally set papers are sent to Cambridge through secured CIE direct website

MES Printing Unit

- Strict Security Measures
- Camera Surveillance
- Restricted Area - Controlled access
- Log book to monitor movement and activity conducted
- Divided into Highly Confidential Zone and Confidential Zone
- Security measures reinforced during printing of confidential documents
- Presence of Security Officer for whole exercise

- Confidential documents kept in a security safe with 2 locks kept by Head and Assistant Head of Printing
- Confidential document monitoring log book `for time in and out` in the presence of a security officer
- Damaged/faulty copies immediately shredded in the presence of the security officer
- Printed confidential documents are sealed in tamper evident envelopes
- Record of the serial numbers on the envelopes as well as the quantity of documents in each is kept

Marking

- Masking and coding
- Apportionment of scripts to ensure that a marker does not get scripts from his school.
- Centre marking under the supervision of a team of examiners (Chief/Joint Chief/Assistant Chief examiners)
- Group of markers under the supervision of a Team Leader (TM)
- Checking of a number of marked scripts by TM to monitor consistency of marking
- Checking of marked scripts by team of examiners

Marking CPE

- Marking in groups under the supervision of a Head of Group
- Each marker marks a specific question
- Scripts are marked a second time by another group
- A number of scripts are marked a third time for quality control
- Clerical recheck of all scripts to detect errors in the transfer of marks and addition

Processing of Marks

- Use of ORACLE database system
- Marks entry regulated through passwords and permissions on the database
- Each mark entered or modified is audited by saving the username, date and time of change and actual marks entered
- Marks are entered twice for the School Certificate examinations and **3 times** for the CPE examinations.

- Whenever marks are changed in the second (or third entry) an audit list is printed
- Marks Entry Operator and Supervisor sign against each changed mark to certify that the changes are correct
- Results processing are checked by running separate audit applications that verify all the outputs
- A query is automatically generated in case of a large disparity in the marks of a candidate in one subject
- The relevant script undergoes a clerical check to ensure that the marks entered are correct



Thank you