

Central Printing and Mailing Unit Tender: Litho Printing Exam Answer Books

ANNEXURE A

1. Background and Purpose

The University of the Witwatersrand, Johannesburg (“the University”), as the contracting legal entity, requires a reliable and continuous supply of examination-related printed materials to support its scheduled assessment cycles each academic year. These materials must be produced and delivered in a manner that safeguards the integrity of the University’s formal assessment processes and ensures that examinations proceed without operational disruption.

The Central Printing and Mailing Unit (CPMU), within the Operations and Facilities Management Department, is responsible for coordinating and managing the production and distribution of essential printed academic materials across all Faculties, Schools, and academic departments. Among these materials, the Exam Answer Books and Test Answer Books are critical assessment instruments that support the University’s formal evaluation processes across undergraduate and postgraduate programmes.

These materials are not merely printed stationery; they are controlled academic instruments that:

- Enable the structured and standardised assessment of students;
- Support uniform examination protocols across multiple venues and campuses;
- Ensure academic integrity and procedural consistency;
- Prevent disruption to examination timetables;
- Safeguard institutional credibility during high-stakes assessment periods.

Given the scale, volume, and time-sensitive nature of examination cycles, the production of these materials requires not only industrial-grade lithographic printing capability and robust quality control mechanisms, but also stringent end-to-end security controls. These controls must encompass a secure production environment with restricted-access handling areas, monitored storage conditions, and documented chain-of-custody protocols throughout all stages of printing, storage, and dispatch. All materials must be sealed using tamper-evident packaging that clearly indicates any interference or unauthorised opening. In addition, the logistical process must ensure reliable, time-critical delivery across multiple campuses and examination venues, supported by traceable distribution records, contingency routing, and sufficient operational resilience to prevent any disruption to scheduled examinations.

The University seeks to appoint a suitably qualified and experienced Service Provider through a formal tender process to print, securely package, and ensure the controlled delivery of these materials as outlined in this Scope of Work.

The purpose of this procurement is to:

- Ensure uninterrupted academic operations;
- Appoint a compliant, quality-assured, and scalable lithographic printing service provider capable of meeting peak assessment-period demand;
- Mitigate operational and academic risk associated with examination materials;
- Establish clear performance standards, measurable deliverables, and enforceable service levels;

- Achieve long-term cost efficiency through a structured, volume-based contractual arrangement.

This Scope of Work defines the technical, operational, quality, security, and service requirements that the appointed Service Provider must meet over the five (5) year contract period.

2. DEFINITIONS

Term / Acronym	Definition
	➤
CPMU	Central Printing and Mailing Unit ➤ A unit within the University that provides printing and mailing services.

3. THE UNIVERSITY'S OBJECTIVE

The University's objectives in procuring outsourced lithographic printing services are to:

The University's objective in procuring outsourced lithographic printing services is to secure a reliable, compliant, and fit-for-purpose service provider capable of producing examination materials in accordance with the University's technical, quality, security, and delivery requirements. The appointed service provider must demonstrate the capacity, controls, and capability necessary to ensure that the University's examination processes are supported without interruption, quality failures, or security breaches throughout the contract period.

4. SERVICE PROVIDER OBLIGATIONS

The appointed Service Provider shall be responsible for the end-to-end production, quality assurance, secure handling, and timely delivery of Examination and Test Answer Books. The Service Provider shall:

- Produce Exam and Test Answer Books strictly in accordance with the technical specifications set out in this Scope of Work.
- Ensure that all printed materials meet predefined quality standards including but not limited to: paper type, GSM, print clarity, colour consistency, binding integrity, pagination accuracy, durability, and packaging specifications.
- Implement documented auditable quality control processes at every stages of production.
- Deliver all completed printed materials no later than sixty (60) calendar days before the start of each scheduled examination period.
- Maintain adequate production capacity to accommodate fluctuations in annual print volumes and potential peak-period demands.
- Apply strict security controls throughout the production lifecycle, including secure print environments, restricted-access handling areas, secure storage, chain-of-custody procedures, tamper-evident packaging, and secure transportation of all examination materials; Comply with all applicable ISO SANS, and industry specific standards referenced in this Scope of Work.

5. SCOPE OF WORK & DELIVERABLES

The University requires the provision of lithographically printed Exam Answer Books and Test Answer Books (the “Deliverables”) for a period of five (5) years. These materials are critical assessment instruments that directly support the continuation and integrity of the University’s academic programme. The appointed Service Provider shall assume full responsibility for the compliant manufacture, finishing, packaging, secure handling, and delivery of these materials in accordance with the technical specifications, quality standards, and service requirements set out in this Scope of Work.

5.1 Printing Method

All materials must be produced using offset lithographic printing technology. Digital printing, inkjet, laser, or alternative printing methods will not be accepted unless expressly approved in writing by the University. The Service Provider must utilise industrial-grade lithographic presses capable of maintaining consistent colour calibration, ensuring high print clarity, and definition, and batch uniformity across high-volume production runs.

5.2 Technical Specifications

The Exam Answer Books shall comply with the following specifications:

5.2.1 Exam Answer Books

- Front page top section (approximately 4cm) printed in colour:
 1. Yellow
 2. Blue
 3. Green
 4. Pink
- Continuation book front page: White
- Interior pages: Monochromatic (black ink)
- Page count:
 1. Coloured books: 12 pages
 2. White books: 8 pages
- Paper:
 1. Interior: 80gsm white bond (minimum)
 2. Cover: Minimum 120gsm coloured stock
- Binding:
 1. Secure, durable, and suitable for handling in examination environments

5.2.2 Test Answer Books

The Test Answer Books shall comply with the following specifications:

- Full-colour front cover:
 1. Yellow
 2. Blue
 3. Green
 4. Pink
- Interior pages: Monochromatic (black ink)
- Page count aligned with University approved samples

Paper and binding specifications as per section 5.2

5.2.3 Security and Examination Control features

In addition to the specifications set out above, the Exam and Test Answer Books shall incorporate the following mandatory security and control features:

a. Sequential Numbering

1. Each Exam and Test Answer Book shall contain a unique sequential control number.
2. The numbering sequence shall be continuous per batch and traceable.
3. The numbering format shall be approved by the University prior to production.
4. The Service Provider shall maintain batch control logs for audit and traceability purposes.

b. Barcodes

1. Each book shall include a machine-readable barcode.
2. The barcode format and positioning shall be approved by the University.
3. Barcodes must be scannable and compatible with the University's examination handling processes.
4. Barcode print quality must meet minimum readability standards.

c. Drop-Out Ink (Where Applicable)

1. Where Optical Mark Recognition (OMR) functionality is required, drop-out ink shall be used in accordance with approved artwork.
2. Drop-out ink must not interfere with OMR scanning accuracy.
3. Colour selection for drop-out ink areas must be approved prior to production.

d. OMR Compatibility

1. All answer books designed for OMR scanning must be printed to precise alignment tolerances.
2. Registration accuracy must ensure reliable and consistent machine scanning.
3. Pre-production proofs must undergo testing and University approval before full production begins.

e. Tamper-Evident Packaging

1. Completed bundles shall be sealed in tamper-evident packaging.
2. Packaging must clearly indicate any interference or unauthorised opening.
3. Seals must not be easily removable without visible damage.

Failure to comply with this security and control features shall constitute non-conformance and may result in rejection of delivered materials.

5.3 Estimated Annual Quantities

The following represent the University's average annual usage volumes:

Exam Answer Books

- ± 40,000 per colour (Yellow, Blue, Green, Pink)
- ± 20,000 White books

Test Answer Books

- ± 30,000 per colour (including White)

The above quantities are estimates and may vary annually based on student enrolment, academic scheduling, and examination requirements.

The Service Provider shall demonstrate adequate production capacity to accommodate a minimum variability of ±20% in annual volumes without delays or price escalation beyond the agreed contractual mechanism.

5.4 Packaging Requirements

All Exam and Test Answer Books must be packaged as follows:

- Bundled strictly in quantities of 100 units
- Shrink-wrapped or otherwise moisture-protected
- Clearly labelled with:
 1. Book type
 2. Colour
 3. Quantity
 4. Batch number
 5. Production date

Packaging must ensure that materials are protected from:

- Moisture
- Physical damage
- Colour fading
- Tampering

Non-compliant packaging shall constitute grounds for rejection.

5.5 Compliance and Quality Standards

The Deliverables must comply with the following minimum standards:

- ISO 9001:2015 Quality Management
- ISO 14001:2015 Environmental Management
- ISO 12647 Print Quality Control (or equivalent recognised standard)
- Membership of Printing SA or equivalent industry body

The Service Provider shall implement and maintain documented quality assurance and control procedures to ensure compliance with all the technical specifications set out in this Scope of Work.

The Service Provider shall at a minimum,:

- Provide pre-production proofs for the University's written approval prior to full print runs.
- Maintain documented internal quality control processes throughout all stages of production.
- Ensure accurate colour reproduction and consistency across all batches.
- Ensure correct page count, sequence, and collation.
- Ensure strong and durable binding suitable for examination handling.
- Ensure absence of paper defects, imperfections, misalignment, ink bleed-through, smudging, or print distortion.
- Ensure uniformity and consistency in size, trimming, and finishing across each batch.

Service Provider shall at a minimum,:

1. Verify sequential numbering accuracy and continuity.
2. Validate barcode readability and scan performance prior to batch release.
3. Confirm OMR alignment accuracy where applicable.
4. Maintain documented quality verification logs for all security features.

All delivered materials shall be subject to inspection and formal acceptance by the University upon receipt. The University reserves the right to reject any batch that does not comply with the approved specifications or quality standards.

In the event of non-compliance, the University may:

- Reject the affected batch in whole or in part.
- Require reprinting at the Service Provider's sole cost within an agreed expedited timeframe.
- Withhold payment for defective or rejected materials.
- Recover any additional costs incurred due to remedial action, where applicable.

Repeated quality failures may constitute a material breach of contract.

5.6 Delivery Requirements

It is noted that delivery timelines in this document are expressed in calendar days. The Service Provider must ensure that its production, packaging, and logistics planning adequately accounts for the reduced number of operational working days resulting from weekends and public holidays. The use of calendar days does not diminish or alter the Service Provider's obligation to meet the required delivery timelines for examination materials. The Service Provider is therefore required to maintain sufficient production

capacity, operational contingencies, and scheduling controls to prevent compressed working periods that may compromise quality, accuracy, or timely delivery.

6. SERVICE LEVELS AND PERFORMANCE STANDARDS

The Service Provider shall comply with the following minimum service level requirements throughout the duration of the contract:

6.1 Delivery Performance

- 100% of confirmed orders must be delivered no later than sixty (60) calendar days prior to the scheduled examination period. The Service Provider must ensure that its production and logistics planning adequately accounts for the reduced number of operational working days resulting from weekends and public holidays. The use of calendar days does not relieve the Service Provider of its obligation to meet the prescribed delivery timelines, and failure to comply shall be recorded as a service failure
- Delivery shall be measured against confirmed academic calendar dates communicated by the University in writing.
- Any failure to meet this requirement shall be recorded as a service failure.

6.2 Quality Performance

- Print accuracy must meet a minimum compliance rate of 99.5% per batch.
- The defect rate shall not exceed 1% per batch.
- 100% barcode readability compliance rate.
- 100% sequential numbering continuity within each approved batch.
- Defects include, but are not limited to:
 1. Incorrect page count
 2. Misalignment
 3. Ink smudging
 4. Binding failure
 5. Paper defects
 6. Incorrect colour application

Where defects exceed acceptable thresholds, the University may reject the batch.

6.3 Reprint and Rectification

- Rejected materials must be reprinted and delivered within ten (10) working days from the date of the University's written rejection notice, at the Service Provider's sole cost.
- Where reprinting delays could disrupt or negatively affect the University's academic operations., the University reserves the right to procure emergency printing from an alternative supplier and recover associated costs from the Service Provider.

6.4 Capacity and Continuity

The Service Provider shall maintain:

- Sufficient production capacity to accommodate $\pm 20\%$ volume fluctuations in volume requirements.
- Backup production capability to ensure uninterrupted supply.
- Documented contingency planning to mitigate:
 1. Equipment failure
 2. Power interruptions
 3. Paper shortages
 4. Personnel disruptions
 5. Supply-chain delays

Failure to ensure continuity that results in academic disruption shall constitute material breach.

6.5 Reporting and Review

The Service Provider shall submit a production and delivery performance report following each completed examination cycle, detailing volumes produced, quality control outcomes, delivery timelines, and any incidents or corrective actions implemented.

The University will conduct performance review meetings after each examination cycle, twice per year, to assess compliance with the Service Levels and contractual obligations.

7. PAYMENT TERMS

No upfront or advance payments shall be made by the University.

Payment for delivered materials shall be made within thirty (30) days of receipt of a valid tax invoice, subject to the following conditions:

1. The invoice must reference the applicable University Purchase Order number.
2. The delivered materials must have been inspected and formally accepted by the University.
3. The goods must comply fully with the specifications, quantities, and service level requirements set out in this Scope of Work.

All invoices must comply with applicable VAT legislation.

Any annual price adjustment applicable under the contract shall be strictly linked to the Consumer Price Index (CPI) and shall not exceed CPI for the applicable period.

Where any delivered materials are defective, incomplete, or non-compliant, the University reserves the right to withhold payment for the affected portion until such non-compliance has been remedied.

8. SERVICE PROVIDER RESPONSIBILITIES

In addition to the specific technical and service level requirements set out elsewhere in this Scope of Work, the appointed Service Provider shall assume full operational responsibility for the proper delivery of the services as described in this Scope of Work.

The Service Provider's responsibilities shall include, but not be limited to, the following:

8.1 Production Capacity and Operational Capability

The Service Provider shall:

- Maintain equipment capable of high-volume industrial lithographic printing
- Ensure sufficient skilled personnel
- Maintain adequate operational efficiency to accommodate peak examination cycles
- Maintain adequate backup production systems or alternative arrangements to prevent delays in the event of equipment failure.

Failure to maintain adequate production capacity shall not relieve the Service Provider of its delivery obligations.

8.2 Storage and Inventory Management

The Service Provider shall:

- Safely store completed materials prior to delivery
- Implement and maintain inventory control procedures to ensure batch traceability
- Protect materials from moisture, physical damage, colour fading, or deterioration
- Prevent loss or unauthorised access, loss or removal of printed stock.

8.3 Logistics and Delivery Planning

The Service Provider shall:

- Plan production and delivery schedules in alignment with the University's academic calendar
- Adjust operational planning to accommodate year-to-year volume variability
- Ensure transport arrangements adequately protect materials during transit
- Coordinate delivery with the Central Printing and Mailing Unit.

8.4 Security and Handling of Examination Materials

Where examination and test materials are printed within the Exam and Test Answer Books, such materials shall be classified as confidential academic documents of a highly sensitive nature. The Service Provider shall implement strict security, confidentiality, and access control measures to safeguard the integrity of all examination materials throughout production, storage, and transport.

The Service Provider shall:

- Restrict access to examination content strictly to authorised personnel directly involved in production.
- Implement controlled access measures within printing and storage facilities.
- Maintain secure production environments to prevent unauthorised copying, photographing, reproduction, or distribution of examination content.
- Ensure secure storage of printed materials in restricted-access areas prior to delivery.
- Maintain documented chain of custody records from production to final handover.
- Ensure secure transport using controlled and monitored delivery arrangements.
- Immediately notify the University in writing of any suspected or actual security breach.

Sequential numbering registers and barcode allocation records shall be securely maintained and made available to the University upon request for audit purposes.

All waste, overruns, spoilage, or misprints containing examination content must be securely destroyed under controlled conditions, and evidence of destruction must be maintained and made available to the University upon request.

Any breach of confidentiality, loss of examination material, unauthorised disclosure, or compromise of examination and test booklets shall constitute a material breach of contract and may result in immediate termination and recovery of damages.

8.5 Supply Chain and Contingency Planning

The Service Provider shall:

- Maintain contingency plans to mitigate risks associated with:
 1. Equipment failure
 2. Raw material shortages
 3. Labour disruptions
 4. Transport delays
- Maintain alternative supplier relationships where reasonably necessary
- Demonstrate capacity to continue production during operational disruptions.

Failure to maintain reasonable contingency measures shall not excuse non-performance.

8.7 Data Protection

The Service Provider shall comply with all applicable data protection and privacy laws and shall implement appropriate safeguards to protect any personal or confidential information received in connection with this engagement. Such information shall be used solely for the purpose of performing the services and shall not be disclosed to third parties without the University's prior written consent, except where required by law.

9. CONFIDENTIALITY

The Service Provider acknowledges that while performing the services it and its employees may have access to confidential information of the University. The successful tenderer will ensure that neither it nor any of its employees nor anyone acting on its behalf will at any time disclose or use directly or indirectly any such confidential information without the University's prior written consent, except where required by law.

10. RISK AND ASSUMPTIONS

The production of Exam and Test Answer Books forms a critical component of the University's assessment process. Failure in production quality, security, storage, or delivery may adversely impact examination scheduling and broader academic operations. This section outlines the key operational risks relevant to this Scope of Work and the minimum mitigation expectations of the Service Provider.

10.1 Key Operational Risks

The following risks are inherent to the production of examination materials:

- Failure to deliver materials no later than sixty (60) calendar days prior to scheduled examination periods
- Variability in annual quantities due to student enrolment
- Insufficient production capacity during peak examination cycles
- Paper shortages, supply chain disruptions, or transport delays
- Quality defects (e.g., incorrect page count, colour inconsistencies, binding failures, print smudging)
- Inadequate packaging, including incorrect bundling quantities
- Damage, moisture exposure, or colour fading during storage
- Security breaches or unauthorised access to Exam and Test Answer Books during printing, storage, or transport.
- Failure or malfunction of sequential numbering, barcode readability, or OMR compatibility resulting in examination processing disruption.

10.2 Service Provider Mitigation Responsibilities

To address the above risks, the Service Provider shall:

- Maintain sufficient industrial lithographic production capacity to meet required volumes
- Maintain backup production capability or alternative arrangements to avoid delays
- Implement and maintain internal quality control processes at defined production stages
- Maintain appropriate storage conditions to protect materials from damage or deterioration
- Ensure secure handling, restricted access, and controlled transport of examination materials
- Implement reasonable contingency and business continuity measures to mitigate production disruptions.

10.3 Assumptions

This Scope of Work is based on the following assumptions:

- Estimated annual volumes reflect historical averages and may fluctuate year-to-year
- The Service Provider operates independently using its own systems and infrastructure
- No University production equipment or ICT systems will be made available for use by the Service Provider.
- For the purposes of this Scope of Work, “reasonable lead time” refers to the minimum period within which the University must provide the Service Provider with confirmed quantities, examination schedules, and any required production instructions to enable the Service Provider to meet all obligations under this contract without compromising quality, security, or delivery performance. In the context of this SOW, reasonable lead time must:
 - Allow the Service Provider to meet the mandatory delivery requirement of sixty (60) calendar days prior to each scheduled examination period.
 - Accommodate the operational realities of high-volume lithographic printing, including capacity planning, procurement of paper stock, plate creation, proofing cycles, colour matching, security feature testing, and quality control processes.
 - Account for reduced working days, as weekends and public holidays may limit actual production and logistics activity despite delivery timelines being expressed in calendar days.
 - Provide sufficient time for compliant binding, sequential numbering, barcode printing, OMR alignment checks, tamper evident packaging, and batch verification without schedule compression.

- Enable the Service Provider to integrate contingency planning, including back up production capability, alternative routing options, and recovery time in the event of equipment failure or supply chain disruption.
- Ensure that any required reprints (within ten working days) do not compromise the overarching 60-day delivery deadline.