AUI3702 S1 2016

Topic 1: IPPF requirements and guidance for performing tests of controls

Code of ethics & The rules of conduct
The purpose of the IIA Code of Ethics is to promote an ethical culture in the internal audit profession. Internal auditors should strive to comply with these principles to earn the trust of those who rely on their services.

- Integrity
  - Perform work with honesty, diligence and responsibility
  - Observe the law and make disclosures expected by law or the profession
  - Not be part of illegal activity or acts discreditable to the profession or the organisation
  - Respect and contribute to legitimate and ethical objectives of the organisation
- Objectivity
  - Not participate in any activity or relationship which may impair unbiased assessment or which is in conflict with the interests of the organisation
  - Not accept anything which may impair professional judgement
  - Disclose all known material facts that, if not disclosed, may distort the reporting of activities under review
- Confidentiality
  - Be prudent in the use and protection of information acquired
  - Not use any information for personal gain and/or that is contrary to the law or detrimental to the organisation
- Competency
  - Engage only in those services for which they have the necessary knowledge, skills and experience
  - Perform internal audit services in accordance with the Standards
  - Continually improve proficiency and the effectiveness and quality of services

INTERNATIONAL STANDARDS FOR THE PROFESSIONAL PRACTICE OF INTERNAL AUDITING
The Standards are mandatory requirements consisting of:

- statements of basic requirements for the professional practice of internal auditing and for evaluating the effectiveness of its performance which are internationally applicable at organisational and individual levels
- interpretations, which clarify terms or concepts within the statements

The purpose of the Standards is to

- delineate basic principles that represent the practice of internal auditing
- provide a framework for performing and promoting a broad range of value-added internal auditing services
- establish the basis for the evaluation of internal audit performance
- foster improved organisational process and operations

The **difference** between attribute and performance standards is that attribute standards cover the attributes of organisations and individuals performing internal auditing while performance standards describe the nature of internal auditing and provide quality criteria against which the performance of these services can be measured.

ATTRIBUTE STANDARDS
1000 – Purpose, Authority and Responsibility
1100 – Independence and Objectivity
1200 – Proficiency and Due Professional Care
1300 – Quality Assurance and Improvement Program
The key concepts to focus on when studying the Attribute Standards are

- the internal audit **charter**
- **assurance** and **consulting services**
- organisational **independence**
- individual **objectivity**
- **proficiency**
- **due professional care**
- **ongoing monitoring**
- using the statement **"Conforms with the International standards for the Professional Practice of Internal Auditing"**

PERFORMANCE STANDARDS
2000 – Managing the Internal Audit Activity
2100 – Nature of Work
2200 – Engagement Planning
2300 – Performing the Engagement
2400 – Communicating Results
2500 – Monitoring Progress
2600 – Resolution of Senior Management's Acceptance of Risks
The key concepts to focus on when studying the Performance Standards are

- **adding value**
- **effectively** managing the internal audit activity
- **risk-based** planning
- **resource** management
- **coordination** of activities with other assurance providers
- using a **systematic and disciplined approach**
- assessing and improving **governance processes**
- evaluating and improving **risk management processes**
- assist in maintaining **effective controls**
- engagement **planning**
- establishing engagement **objectives**
- engagement **scope**
- **resources** allocation
- **work programmes**
- identifying **sufficient**, **reliable**, **relevant** and **useful** information
- analysing and evaluating **engagement results**
- documenting **information**
- **supervision**
- **communicating** results
- **disseminating** results
- **monitoring progress**
- resolution of **senior management's acceptance of risks**

Attribute standards:

Concept	Standard	Interpretation/Implementation
The internalaudit **charter**	**1000**	•The internalaudit charter should clearly state the internal auditor's responsibility and authority to conduct tests ofcontrols within the organisation.•The charter should authorise access to records,personneland physical properties relevant to performing tests of controls.•Iftests of controls resultinassurances to be provided to partiesoutside the organisation, thecharter must define the nature of these assurances.
Assurance& consultingservices	**1000**	•The nature of assurance and consulting services involving tests of controls should be defined in thecharter.(For a betterunderstanding of the difference between assurance and consulting services, read the section "Assurance and Consulting Services"in Reding et al, chapter 2.)
Organisational **independence**	**1110**	•When testing controls, the internal audit activity must be free from interference when determining the scope ofsuch testing, the procedures applied to do the testing and communicating the results of such testing.•To accomplish this,the chief internal auditor should report to a levelwithin the organisation that allows the internalaudit function to accomplish its responsibilitiesand have direct interaction with the board and auditcommittee.
Individual**objectivity**	**1120**	•An internal auditor should have no conflicting interestsfthat may influence or mayappear to be influencing hisor her ability to performtests of controls objectively.

Impairment to independence and/orobjectivity	**1130**	•If independence or objectivity isimpaired in fact orappearance, the details of the impairment (i.e. conflictofinterest, scope limitation, restriction on access to records, personneland propertiesand resource limitations) must be disclosed to appropriate parties.•Internal auditors must refrain from performing tests ofcontrols as part of assurance engagements in areastheywere previously responsible for–atleast forone year.
Proficiency	**1210**	• Internal audit activities and individual internal auditors involved in the testing of controls should possess the knowledge, skills and other competencies needed to conduct tests of controls. • Practice Advisory 1210-1 elaborates on the proficiency requirements for internal auditors. • Where an internal audit activity lacks competencies to conduct a specific assurance engagement, the competencies should be obtained elsewhere. • Internal auditors must have sufficient knowledge to evaluate the risk of fraud when performing tests of controls. • Internal auditors should have sufficient knowledge of key information technology risks and controls and available technology-based audit techniques to perform their assigned work.
Due professional care	**1220**	• When performing tests of controls, the internal auditor should exercise due professional care by considering the - extent of work needed to achieve the engagement's objectives - relative complexity, materiality or significance of matters to which testing procedures are applied - adequacy and effectiveness of governance, risk management and control processes - probability of significant errors, fraud or non-compliance - cost of controls/assurance provided in relation to the potential benefit • When performing tests of controls the internal auditor must consider the use of technology-based audit and other data analysis techniques. • Internal auditors must be alert to potential risks that might affect objectives, operations or resources when testing controls. • When performing tests of controls as part of a consulting engagement, internal auditors should consider - the needs and expectations of clients, including the nature, timing, and communication of engagement results - relative complexity and extent of work needed to achieve the engagement's objectives - cost of the consulting engagement in relation to potential benefits
	1311	• Tests of controls should be subjected to ongoing monitoring which should form an integral part of the day-to-day supervision, review, and measurement of the internal audit activity.

Using the statement: "**Conforms with the International standards for the Professional Practice of Internal Auditing**"	**1340**	• When reporting the results of an audit of controls, the auditor may only state that the audit was performed in conformance with the Standards if the results of the quality assurance and improvement programme support this statement.

Performance standards:

Concept	Standard	Interpretation/Implementation
Risk based planning	**2010**	Test of control audits should form part of the internal audit activity's risk-based plans. In developing a risk-based plan for the internal audit activity, the CAE takes into account the organisation's risk management framework, including using risk appetite levels set by management for the different activities or parts of the organisation.
Coordination of activities with other assurance providers	**2050**	The internal auditors should share information and coordinate activities with regard to control testing with other internal and external assurance providers and consulting services to ensure proper coverage and minimise duplication of efforts.
Using a systematic and disciplined approach	**2100**	The internal audit activity must use a systematic and disciplined approach when performing tests of controls. This approach will be discussed in more detail in topic 3 of this module.
Assessing and improving governance processes	**2110**	Where deemed necessary the internal audit function will perform tests of controls to assess and make recommendations that will improve the organisation's governance processes. In doing this the internal audit activity aims to - promote appropriate ethics and values within the organisation - ensure effective organisational performance management and accountability - communicate risk and control information to appropriate areas of the organisation and - coordinate the activities of and communicate information among the board, external and internal auditors and management
Evaluating and improving risk management processes	**2120**	Where deemed necessary the internal audit function will perform tests of controls to assess and make recommendations that will improve the organisation's risk management process. In performing these tests the internal audit activity will assess whether or not the - organisational objectives support and align with the organisation's mission - significant risks are identified and assessed - appropriate risk responses are selected that align risks with the organisation's risk appetite - relevant risk information is captured and communicated in a timely manner across the organisation, enabling staff, management and the board to carry out their responsibilities
Assisting in maintaining effective controls	**2130**	Where deemed necessary the internal audit function will perform tests of controls to help the organisation maintain effective controls by evaluating their effectiveness and efficiency and by promoting continuous improvement. To this effect, the internal audit activity evaluates risk exposures and evaluates the design adequacy and operating effectiveness of controls regarding the - reliability and integrity of financial and operational

		information - effectiveness and efficiency of operations - safeguarding of assets - compliance with laws, regulations and contracts
Engagement planning	**2200**	A plan should be documented for test of control engagements. The plan should include the engagement's objectives, scope, timing and resource allocations. In planning such an engagement the auditor should consider - the objectives of the activity being reviewed and the means by which the activity controls its performance - the significant risks to the activity, its objectives, resources and operations and the means by which the potential impact of risk is kept to an acceptable level - the adequacy and effectiveness of the activity's risk management and control processes compared to a relevant control framework or model - the opportunities for making significant improvements to the activity's risk management and control processes
Establishing Engagement objectives	**2210**	**2210**
Engagement scope	**2220**	
Resource allocation	**2230**	
Work programmes	**2240**	

Identifying sufficient, reliable, relevant and useful information	**2310**	The internal auditor should collect sufficient, reliable, relevant and useful information to support the findings resulting from the tests of controls.
Analysing and evaluating engagement results	**2320**	Conclusions and opinions should be based on appropriate analysis and evaluations.
Documenting information	**2330**	Relevant information should be documented to support conclusions reached.
Supervision	**2340**	Proper supervision must ensure that objectives are achieved, quality is assured and staff are developed.
Communicating results	**2400**	For test of control engagements to be of value, results should be communicated timely to appropriate users. Communications must include the engagement's objectives and scope as well as applicable conclusions, recommendations and action plans. Communications must be accurate, objective, clear, concise, constructive, complete and timely. Corrected information should be communicated to all parties who received the original communication. The statement per Standard 2430 may only be used if the results of the quality assurance and improvement programme support the statement.
Criteria for communicating	**2410**	
Quality of communication	**2420**	
Errors and omissions	**2421**	
"Conducted in accordance with the Standards"	**2430**	
Disseminating results	**2440**	The CAE must report internal audit engagement results to appropriate parties.
Monitoring progress	**2500**	For assurance engagements this implies that the CAE must ascertain that management actions have been effectively implemented or that senior management has accepted the risk of not taking action. For consulting engagements, the internal audit activity must monitor the disposition of results to the extent agreed upon with the customer.
Resolution of senior management's acceptance of risks	**2600**	When an unacceptable level of residual risk is believed to exist, the CAE must discuss the matter with senior management and if the matter is not resolved, the CAE must report the matter to the board.

The **Practice Advisories**
The Practice Advisories provide concise and timely guidance on how the Standards might be implemented. They cover approaches, methodologies, and factors for an internal audit function to consider, but are not intended to provide detailed processes and procedures for internal audit functions to follow.
Each Practice Advisory is correlated by number to the standard to which it pertains and also refers to the Code of Ethics where applicable.

Standard	Practice Advisories		Study unit
2200	2200-2: 2210-1: 2210.A1-1: 2240-1:	Using a top-down risk-based approach to identify the controls to be assessed in an internal audit engagement Engagement objectives Risk assessment in engagement planning Engagement work programme	SU 2.1 SU 4.1 SU 3.1
2300	2300-1: 2320-2 2320-3 2330-1: 2330.A1-1: 2330.A1-2: 2330.A2-1: 2340-1:	Use of personal information in conducting engagements Root cause analysis Audit Sampling Documenting information Control of engagement records Granting access to engagement records Retention of records Engagement supervision	SU 6.1 SU 6.1 SU6.1 SU 6.1 SU 6.1 SU 6.1 SU 6.1 SU6.1
2400	2400-1: 2410-1: 2440.A2-1: 2440-1: 2440-2:	Legal considerations in communicating results Communication criteria Quality of communications outside the organisation Disseminating results Communicating sensitive information within and outside the chain of command	SU 7.1 SU 7.1 SU7.1 SU7.1

Position papers
The IIA often issues statements in the form of Position Papers to help a wide range of interested parties to understand significant governance, risk or control issues and delineate related roles and responsibilities of internal auditing.
The following Position Papers are applicable to this part of the module on tests of controls:

- The three lines of defence in effective risk management and control – January 2013
- The role of internal auditing in enterprise-wide risk management -- January 2009

Internal Audit Charter
According to Practice Advisory 1000-1

- the internal audit charter provides a recognised statement for review and acceptance by management and for approval by the board
- it also facilitates a periodic assessment of the adequacy of the internal audit activity's purpose, authority and responsibility, which establishes the role of the internal audit activity
- if a question should arise, the internal audit charter provides a formal, written agreement with management and the board about the organisation's internal audit activity

The charter, therefore, plays a critical role in the management of the internal audit activity.
The internal audit charter should define the internal audit activity's purpose, authority and responsibility.

TOPIC 2: AUTHORITATIVE GUIDANCE FOR CONDUCTING TESTS OF CONTROLS

Corporate Governance
The two key elements of corporate governance concern the following:
- monitoring management performance
- ensuring management's accountability to shareholders and other stakeholders

Stakeholders can be divided into the following groups:
- Stakeholders directly involved in the operation of the organisation's business, such as employees, customers, and vendors.
- Stakeholders interested in the organisation's business, such as shareholders, investors, certain regulators and financial institutions.
- Stakeholders influencing the organisation's business, including certain regulators, financial institutions, rating agencies , industry associations and competitors.

The Internal audit activity's governance responsibilities may include any or all of the following:
- Evaluating whether the various risk management activities are designed adequately to manage the risks associated with unacceptable outcomes.
- Testing and evaluating whether the various risk management activities are operating as designed.
- Determining whether the assertions made by the risk owners to senior management regarding the effectiveness of the risk management activities accurately reflect the current state of risk management effectiveness.
- Determining whether the assertions made by senior management to the board regarding the effectiveness of the risk management activities provide the board with the information it desires about the current state of risk management effectiveness.
- Evaluating whether risk tolerance information is communicated timely and effectively from both the board to senior management and from senior management to the risk owners.
- Assessing whether there are any other risk areas that are currently not included in the governance process, but should be.

Governance is an oversight activity that is carried out for the benefit of outside stakeholders.
Since members of management receive direct compensation for their work, the common perception is that they may make decisions that benefit outside directors.
Outside directors are elected by shareholders, and do not receive direct compensation.
Instead their reward lies in shares performance which tends to motivate the board to focus on long term interests that are more aligned with the shareholders' expectations.
Therefore, having independent outside directors on a board enhances the ability of the board to carry out its governance oversight.

Risk-based auditing
King III states that internal audit should pursue a risk-based approach to planning as opposed to a compliance approach that is limited to evaluation of adherence to procedures.
The auditors have to determine the risks and focus their resources and attention on the high risk areas.
Risk assessment should therefore be the first step for determining which engagements to undertake and the first step for designing the audit approach in any audit engagement.

KING III (J&S 4/30, 31)
7.1 the board should ensure that there is an effective risk based i9nternal audit
7.2 internal audit should follow a risk based approach to its plan
7.3 internal audit should provide a written assessment of the effectiveness of the company's system of internal control and risk management
7.4 the audit committee should be responsible for overseeing internal audit

The two common methods used to document **processes** are process maps and process write-ups. Process maps show the inputs, workflows, process interactions, and outputs in a graphic form. A process write-up is a narrative description of how the process works.

The four strategies an organisation can take to **respond to risk** are:

- Controlling the risk (mitigating the risk) by reducing the likelihood of the event taking place, by reducing its impact, or both. For example, the airbags in a car reduce the impact of a collision in terms of the risk that a passenger in the car would be injured.
- Transferring (sharing) the risk to (with) other organisations. For example by buying insurance you can transfer some of the risk of losing your car in an accident to the insurance company.
- Accepting the risk. In this case, the organisation takes its chances that risk events will be tolerable.
- Avoiding the risk by not engaging in the activity.

Once an internal auditor understands an organisation's objectives, the next three primary steps are to:

- Understand the key processes that are used to achieve those objectives;
- Evaluate the business risks that could impede the accomplishment of the objectives; and
- Identify the strategies employed to manage those risks.

Outsourcing a business process does not allow management to abdicate responsibility for ensuring the process operates effectively.
Therefore, performance requirements should be built into the outsourcing contract.
Compliance with performance requirements is a relevant and important internal audit activity.
The internal audit function should consider outsourced processes as part of the audit universe and take a proactive approach, reviewing risk and control activities prior to implementation.
Outsourcing the process does not remove the operational risks.
The internal auditor still needs to consider the risks to the organisation and address those risks in the risk assessment process.
The independent outside auditor is not required to consider risks that are not related to the financial statements and, thus may not be interested in all outsourced processes.

combined assurance implies the following:

- "integration and alignment of assurance processes in a company to maximise risk and governance oversight and control efficiencies, and optimise overall assurance to the audit and risk committee, considering the company's risk appetite".
- Combined assurance is the process of helping organisations to understand the overall levels of assurance required and where they would need to improve or deal with these levels of assurance to effectively manage organisational risk.
- The internal and external auditors, as well as other assurance providers play an important role in providing assurance to organisations.
- King III recommends that the audit committee should oversee the process of combined assurance being provided to organisations and
- further recommends that the internal audit activity should act instrumentally to the combined assurance activities performed in organisations.
- This corresponds with *Internal Auditing Standard 2050: Coordination*, which requires the chief audit executive to "share information and coordinate activities with other internal and external providers of assurance and consulting services to ensure proper coverage and minimize duplication of efforts".

the combined assurance framework

Principle 3.5 of King III provides the following guidance on the audit committee's involvement in the combined assurance effort:

- The audit committee is responsible to ensure that a combined assurance model is applied by
  - monitoring the appropriateness of the company's combined assurance model
  - upholding the independence of the assurance providers
  - helping ensure that the assurance functions are carried out effectively
  - ensuring all the significant risks facing the company are adequately dealt with
  - monitoring the relationship between the external assurance providers and the organisation
- he purpose of the combined assurance model is to provide a coordinated approach to all assurance activities that will optimise the assurance coverage obtained.
- Assurance should be obtained on the risk areas affecting the organisation.
- Assurance is obtained from management, internal assurance providers and external assurance providers. The combined assurance obtained from these parties should be sufficient to satisfy the audit committee that
  - significant risk areas within the company have been adequately dealt with
  - suitable controls exist to mitigate and reduce these risks
- The main external assurance providers are
  - external auditors
  - regulators (inspectorate)
- Other external assurance providers include
  - sustainability assurance providers
  - actuaries
  - geologists
- Internal assurance providers include
  - the organisation's finance function
  - the internal audit function
  - the risk management function

Paragraph 21 of King III, principle 7.4, provides the following guidance on the combined assurance efforts for the internal audit function:

- Internal audit should play a pivotal role in the combined assurance model.
- Main purpose of internal audit in the combined assurance model is
  - to provide independent assurance on risk management and systems of internal control
- Predominant contributors to combined assurance are
  - internal audit
  - risk management
  - quality assurers
  - environmental and occupational health and safety auditors
  - external audit
  - other external assurance providers
  - management

For organisations to ensure combined assurance, they should

- perform a comprehensive risk assessment
- prioritise risks
- implement adequate controls to ensure the residual risk is within tolerable parameters
- monitor controls internally
- obtain internal assurance that controls are working as intended
- obtain independent assurance that controls are working as intended and that they are tackling the identified risks

- Combined assurance asks for a coordinated and controlled approach to conduct the last three steps mentioned.
- A formal plan needs to be established for the risks to be controlled,
  - indicating the level of assurance required,
  - the frequency of such assurance and
  - how and by whom such assurance should be provided.
- The audit committee needs to ensure that this plan is maintained and executed.

The objectives of the combined assurance plan are to

- identify and specify the sources of assurance over the organisation's risks
- provide risk management with a framework of the various assurance parties
- link risk management activities with assurance activities
- provide a basis for identifying any areas where assurance may still be required
- It is important, however, to realise that even though assurance functions may be delegated to other parties, executive management remains ultimately responsible for all risks within the organisations and hence assumes the overall responsibility and accountability for all identified strategic risks.

Assurance maps

Assurance mapping is a technique used to coordinate assurance activities to ensure resources are used in the most eficent and effectve way.

• Drawing up an assurance map involves the mapping of assurance coverage provided by different assurance providers against the key risks in an organisation.

• The purpose of coordinated assurance is to ensure that there is a comprehensive risk and assurance process with no duplicated effort or potential gaps.

• Assurance maps assist to identify and address any gaps or duplications in the organisation's risk management and assurance processes.

• The mapping is done accross the organisation to understand where the overall risk and assurance roles and accountabilities reside.

• Assurance maps could have the following columns:

Significant risk category*	Inherent risk rating	Residual risk rating	Management's (risk owner's) role	Internal assurance	External assurance	Other assurance

* The name of the risks listed here should correspond directly with the risk register. If the risk register changes, the assurance map should also change.

• Each significant unit within an organisation could have its own assurance map. Alternatively, the internal audit activity may play a coordinating role in developing and completing the assurance map for the organisation.

• If significant risks with inadequate assurance coverage or areas of duplicated assurance coverage, can be identified, senior management and the board should consider changes in assurance coverage for these risks.

• The internal audit activity should consider areas of inadequate coverage when developing the internal audit plan.

• In organisations where the Chief Audit Executive (CAE) is required to express an opinion on the organisation's governance, risk management and control processes, the CAE needs to understand the nature, scope and extent of the integrated assurance map to consider the work of other assurance providers before presenting such an opinion.

• In organisations not requiring the CAE to provide an overall opinion, the CAE can act as the coordinator of assurance providers to ensure there are either no gaps in assurance, or the gaps are known and accepted. The CAE reports on any lack of input/involvement/oversight/assurance over other assurance providers and if the CAE believes that the assurance vocerage is inadequate or ineffective, he informs senior management and the board accordingly. Assurance maps offer an effective way of communicating this coordination.

Benefits of combined assurance

- All the assurance efforts within an organisation are coordinated and focus on the key risks.
- Remedial actions taken are prioritised and thoroughly tracked.
- Business disruptions are minimised.
- Reporting to boards and committees on risk management is coordinated and improved.
- The cost of assurance may be reduced.
- Demands by assurance providers to expand their scope may be reduced and better managed.
- Combined assurance plans and reports will support the audit committee and the board when they make their control assessment statements in the integrated reports.

Critical success factors to ensure successful combined assurance efforts:

- Successful combined assurance efforts require the support of executive management and the buy-in of all participants.
- A party should be identified to drive the combined assurance effort. (This could be the internal audit activity.)
- The combined assurance framework should be discussed with all assurance providers and agreement should be reached on the methodology, risk language and technology used to manage the process.
- The quality of assurance providers and the assurance provided should be evaluated and monitored.
- The organisation's management should be clear on the organisation's risk appetite, tolerance, desired level of assurance required and the party that should be responsible for providing such assurance.
- The combined assurance approach should be clearly communicated throughout the organisation.
- All involved should have a clear understanding of the plan, its objectives, processes and outputs.

External auditors examine the accounting systems and controls and test the underlying transactions that inform the figures disclosed in the annual financial statements, in order to express an opinion about the fair presentation of the financial statement disclosures, aimed primarily at external users (predominantly shareholders).
Internal auditors, examine the same systems and controls but from the perspective of evaluating whether significant risks, which can derail the organisation from achieving its objectives, are adequately mitigated.
The efforts of internal auditors are primarily aimed at internal users.
Internal auditors provide assurance to the board, audit committee and top management that effective risk mitigation is consistently being applied
To ensure that strategic and operational objectives will be achieved,
while advising management on how to enhance risk management and control within its major operations

Comparison of the roles of internal and external auditors		
Factor	**Internal audit**	**External audit**
Objective	Sound risk management and controls	Accounts = true and fair view
Scope of work	Overall systems: value for money, fraud, management information systems and compliance	Accounts, profit and loss account, balance sheets, annual report and financial systems
Independence	From operations by professionalism and status	From company via statutory rights and codes issued by the South African Association of Chartered Accountants' Accounting Practices Board (APB).
Structure	Varies: chief audit executive, managers, seniors and assistants	Partners, managers, seniors and trainees
Staff	Competent persons trained in internal auditing	Qualified and part qualified accountants
Methodology	Risk-based systems-based audits, assurances and consulting work	Vouching and verification and some use of risk-based systems approach
Reports	Comprehensive structured reports to management and the audit committee and brief executive summaries	Brief standardised published reports to shareholders and users of accounts
Standards	IIA and/or other	Various APB statements

Legislation	General not mandatory apart from parts of public sector, but encouraged in most sectors	Companies legislation and various public sector statutes
Size	Varies according to the size of the organisation	All registered companies and public sector small companies may have exemptions

Nature and purpose of assurance maps:

- Assurance mapping is a technique used to coordinate assurance activities to ensure resources are used in the most eficent and effective way.
- Drawing up an assurance map involves the mapping of assurance coverage provided by different assurance providers against the key risks in an organisation.
- Assurance maps assist to identify and address any gaps or duplications in the organisation's risk management and assurance processes.

Suggestions for other assurance providers to be appointed in each risk area:

- Appoint a risk consultant to evaluate the risk evaluation and risk assessment procedures within the mining company and to express an opinion on the reliability of the risk register.
- Appoint forensic auditors to perform a fraud risk assessment on the mining company's procurement activities.
- Appoint qualified sworn assessors to value the mining company's fixed assets.

The internal audit activity's coordination responsibility as it relates to the external auditors:

- Guidance to the internal auditor for coordinating the internal-external audit relationship is provided in Practice Advisory 2050-1.
- A summary of this responsibility is found in Chapter 9 of your prescribed book, Reding et al, under the heading: "Coordinating with independent outside auditors."

Factors the internal audit activity should attend to in deciding to rely on assurance provided by other assurance providers:

- Internal auditors should only rely on the work of other assurance providers if they are sure of the independence, objectivity, competence and proficiency of the assurance provider. Internal audit should therefore:
  - Review the relationship between management and the assurance provider for independence and objectivity.
  - Assess the competencies and qualifications of the assurance provider.
  - Assess the practice of the assurance provider to determine whether their findings are based on sufficient, reliable, relevant and useful information, as required by Standard 2310.
  - Ensure that the work of the assurance provider is appropriately planned, supervised, documented and reviewed and that the evidence are adequate to support the conclusions reached.
  - Ensure that findings are reasonable, based on their knowledge of the business environment and the techniques and information used by the assurance provider.
- The assessment as described above should lead the internal audit activity to decide on the level of reliance to be placed on the assurance provider and the amount of additional work to be done before assurance can be provided on the results.

Additional factors that the internal audit activity should attend to where they appoint other assurance providers:

Where the internal audit activity is hiring the external assurance provider, a formal agreement or contract should be drawn up by the internal auditors that spells out details regarding minimum expectations, nature and ownership of deliverables, methods/techniques to be applied, procedures and data to be used, progress reports and supervision.

Predominant contributors to combined assurance according to King III:

- Internal audit
- Risk management
- Quality assurers
- Environmental and occupational health and safety auditors
- External audit
- Other external assurance providers
- Management

Responsibility for management and accounting
• The direction and control of National and Provincial departments are not done by a board of directors but by the Executive Authority as defined in section 1 of the PFMA.
• The Executive Authority must appoint the accounting officer, according to section 36 of the PFMA.
• As defined by the PFMA public entities have Accounting Authorities, which operate along the same guidelines as Boards of Directors.
• The fiduciary duties of the Accounting Authority are set out in section 50 of the Act.
• The PFMA prescribes the responsibilities of other officials of public entities in section 57.

The five components of internal control are:
• control environment,
• risk assessment,
• control activities,
• information and communication and
•monitoring.

The **CEO of an organisation** owns and has ultimate responsibility for internal control; however, everybody has some level of responsibility for internal control.
The CEO has primary responsibility due to the nature of the position and because the CEO is the individual who most directly sets the "tone at the top" which is the ethical climate of the organisation. There is a direct relationship between the integrity of the CEO and the overall ethical environment of the organisation, which in turn affects the effectiveness of the system of internal controls.

Preventive controls are actions taken prior to the occurrence of transactions with the intent of stopping errors from occurring. Use of an approved vendor list is a control to prevent the use of unacceptable suppliers. B is an incorrect answer because a detective control identifies errors after they have occurred. C is incorrect because corrective controls correct the problems identified by detective controls. D is also incorrect because monitoring controls are designed to ensure the quality of the control system's performance over time.

Independent reconciliation of bank accounts is necessary for good internal control.
Having two employees in the same department perform the same task will not significantly enhance internal control.

TOPIC 3: INTERNAL CONTROL SYSTEMS

A **business process** is the set of connected activities linked with each other for the purpose of achieving an objective or goal.

Two general types of **business processes are present in most organisations that deliver goods and services:**

- the operating processes and
- the management and support processes.

- The operating processes include strategic planning, product and service design and development, marketing, production/delivery, invoicing and collection.
- The management and support processes include obtaining and managing the organisation's human resources, managing financial resources, managing the information technology resources, managing physical resources, the organisation's compliance and governance systems, and the process for managing the organisation's external stakeholders.

The **key objectives for a process** can be identified by determining the following for the process:

a. Why does the process exist?
b. How does the process contribute to the success of the organisation's strategy?
c. How are people expected to act?
d. What else does the process do that is important to management?

The two common methods used to **document processes** are

- process maps
- process write-ups.

- Process maps show the inputs, workflows, process interactions, and outputs in a graphic form.
- A process write-up is a narrative description of how the process works.

A **risk control map** will use risk significance on one axis, which is typically a combination of impact and likelihood, and control effectiveness on the other axis.

segregations of duties for the revenue receipts cycle

Segregation of duties	Possible errors or fraud resulting from conflict of duties
The credit function should be segregated from the invoicing function	If one individual has the ability to grant credit to a customer and also has responsibility for invoicing that customer, it is possible for sales to be made to customers who are not creditworthy. This can result in bad debts.
The delivery/despatch function should be segregated from the invoicing function	If one individual who is responsible for delivery/despatch of goods is also involved in the invoicing function, it is possible for unauthorised shipments to be made and for the usual invoicing procedures to be circumvented. This can result in unrecorded sales transactions and theft of goods.
The accounts receivable function should be segregated from the general ledger function	If one individual is responsible for the accounts receivable records and also for the general ledger, it is possible for that individual to conceal unauthorised shipments. This can result in unrecorded sales transactions and theft of goods.
The cash receipts function should be segregated from the accounts receivable function.	If one individual has access to both the cash receipts and the accounts receivable records, it is possible for cash to be diverted and the shortage of cash in the accounting records to be covered. This can result in theft of the entity's cash.

the acquisitions and payments cycle

accounts are likely to be affected by purchase transactions

- Accounts payable
- Inventory
- Purchases or cost of goods sold
- Various assets and expense accounts

One of the most important controls in any accounting system is proper segregation of duties. Without proper segregation in the **acquisitions and payments cycle**, errors and fraud can occur, such as
• theft of goods and unauthorised purchases
• theft of cash and/or overpayment for goods and services
• documenting unauthorised transactions
• concealing misappropriation of fund or other fraudulent acts.

the inventory and production cycle

The following errors and fraud can occur if adequate segregation of duties is not in place:
• If the individual responsible for inventory management also has access to the cost accounting records, production and inventory costs can be manipulated. This may lead to an overstatement or understatement of inventory or net income.
• If one individual is responsible for both controlling and accounting for inventory, unauthorised shipments can be made or theft of goods can be covered up.
• If one individual is responsible for the inventory records and also for the general ledger, it is possible for that individual to conceal unauthorised shipments. This can result in the theft of goods, leading to an overstatement of inventory.
• If the individual responsible for production management or inventory warehouse function is also responsible for physical inventory, it is possible that inventory shortages can be covered up through the adjustment of the inventory records to the physical inventory, resulting in an overstatement of inventory.

The following activities take place in the **production and inventory cycle**:
1. Preparation of production schedules
2. Issuance of materials requisitions that accompany goods to the manufacturing department
3. Updating of cost records with manuals
4. Updating of inventory records
5. Release of goods to the shipping department
6. Approval and issuance of purchase requisitions

The following departments are responsible for these activities:
• Inventory management
• Raw materials warehouse
• Finished goods warehouse
• Cost accounting department
• Information technology department

the payroll and personnel cycle

1. personnel (human resources)
2. timekeeping
3. payroll preparation
4. payment preparation and payout
5. deductions payment and recording

Internal controls for wages in a computerised environment to make it possible to
ensure that all staff appointments and resignations, changes to wage rates and the weekly total net wages payable are authorised (occurrence and validity)
Internal controls:
•Logical access controls allow only authorised personnel to add new employees and record terminations in the employee master file.
•Printouts are produced of all changes to standing data on the employee master file.
•Logical access controls allow only authorised personnel to make changes to standing data on the employee master files.

•Printouts are produced of all changes to standing data on the employee master file.
•The pay sheet for the total net wages payable must be authorised by the senior salary and wages officer by means of his or her signature on the payroll.
ensure that the accounting accuracy of all wage trasactions has been checked and the information substantiated by supporting documentation and records (measurement)
Internal controls:
•Programmed limit and reasonableness checks of hours worked as well as input validation checks of employee name and code numbers.
•Programmed calculations of weekly and monthly payrolls from hours worked records and standing data for gross pay rates and deductions and the analysis of cost allocations, and automatic production of the payroll printouts and individual pay slips for employees.
•Exception reports printed of employees' names or code numbers duplicated or omitted from the payroll; hours worked in excess of norms; and the analysis of cost allocations, and automatic production of the payroll printouts and individual pay slips for employees.
•For each employee there should be a clock card showing the hours worked and a permanent record showing the rate per hour and the authorised deductions.
•The senior disbursement clerk should make certain that there is a clock card for each employee and check that only authorised rates have been used for calculating wages.

Proposed internal controls for a wage payout:
•Arrangements should be made for the physical security of the cash that will be paid
as wages in order to restrict access to the cash.
•Pay slips showing the amount payable to an employee should be handed to the employee together with a sealed wage envelope.
•Disbursement should take place in the presence of an authorised official who will ensure that the handing over of the wage envelopes takes place in an orderly manner.
•Employees should be properly identified by the checking of their identity numbers or identity cards before their wages are paid to them.
•The disbursement clerk should mark off all the wages that are paid out on the wage record or payroll.
•Employees should sign the wage record or payroll as evidence that they have received their wages.
•Wage envelopes that have not been handed over should be marked as unclaimed, and the disbursement clerk and a responsible person should compare unclaimed wages with the wage record and sign the wage record as evidence that the check has been carried out.
•The unclaimed wages should be handed over to a responsible person, such as one of the cashiers, who will record them in an unclaimed wages register.

THE FINANCE AND INVESTMENT CYCLE
One of the significant risks associated with the finance and investment cycle is that assets may be overstated and liabilities may be understated to improve the financial statements.
Methods that could be used by organisations to understate liabilities and overstate assets:
Understating liabilities
• omitting long-term liabilities (e.g. failing to record a new loan and disguising the inflow of cash as income)
• understating or omitting provisions/allowances (e.g. not providing for long-term environmental damage which the company has an obligation to rectify).
• omitting or inadequately disclosing contingent liabilities (e.g. the company makes no mention in the notes of a pending lawsuit) which may have grave consequences for the company

Overstating assets
• creating unjustified reserves with a corresponding increase in fixed assets (e.g. obtaining an inflated property valuation from an estate agent)

• overstating property, plant and equipment, etc, by including fictitious assets or assets which the company does not own (e.g. including the assets of a related party)
• overstating plant and equipment, vehicles, etc, by understating depreciation allowances and impairments (e.g. failing to write down obsolete/impaired machinery)
• overstating investments in listed and/or private companies (e.g. failing to write down the cost of investments in private companies, where the fair value of the investment has decreased)

The six components of IT described in this chapter are computer hardware, networks, computer software, databases, information and people

Continuous auditing involves three types of assessments: continuous controls assessment, continuous risk assessment, and assessment of continuous monitoring.

The **operating system** controls the basic input, processing, and output of the computer and manages the interconnectivity of the system hardware devices**.**
Application software includes accounting software that is used to process transactions as well as other types of software, such as word processing and spreadsheet software, which enable end users to perform their assigned tasks.
Utility software augments the operating system with functionality such as encryption, disk space optimisation and protection against viruses.
Database management system software manages the data stored in the database, controls access to the database, and automatically backs up the database.

The **internal audit function is responsible** for assessing the effectiveness of management's continuous monitoring activities. In areas of the organisation in which management has implemented effective monitoring activities, the internal audit function can conduct less stringent continuous assessments of risks and controls.

Specific inherent **IT fraud and malicious acts risk events** that could occur and cause harm to an organisation include:
•Stealing computer hardware such as a laptop computer.
•Stealing confidential information stored in the organisation's database.
•Intercepting data as it is being transmitted via the Internet.
•Using an organisation's computer to conduct personal business.
•Inserting a virus in the information system to corrupt data and/or computer software.
•Changing application software to manipulate transactions as they are processed.
•Inputting fictitious data into an application system.
•Diverting application system output to individuals not authorised to receive the output.

TOPIC 4: METHODS AND TECHNIQUES FOR TESTING CONTROLS

Engagement objectives depend on organisational objectives.
The engagement objective(s) should be established for each audit engagement and should be formulated with reference to the following:
• *The provisions of the charter.* Do the internal auditors have the mandate to perform such audits?
• *The requirements of the audit committee*. Has the audit committee approved the annual audit plan and does the audit plan make provision for the specific engagement?
• *The origin of the assignment*. Is the assignment conducted on request of a certain party or does it form part of the assurance activities of the internal audit function? (This is normally the case with tests of controls.)
• *The consideration of the risk assessment*. Have the most significant risks been identified?

- Engagement objectives should reflect the results of the preliminary survey (the information that the auditor obtained about the audit client and the cycle/process to be tested) and
- should address the risk management, control and governance processes associated with the activities under review.
- The auditor should also consider the probability of significant errors, irregularities, non-compliance and other exposures.
- To do so, the internal auditor will have to rely on his or her experience and knowledge of the specific auditee.

Tests of controls are formulated by referring to **HOW**, **WHAT** and **WHY**
inspecting, observing, reperforming, and inquiring

Formulating tests of controls for manual internal controls:

HOW: This is the verb that describes the action to the performed.

- **Inspection** → A good example is the inspection of reconciliations for evidence of a signature as authorisation.
- **Observation** → An example is when the auditor observes the inventory count control activities. Observation is not the best audit procedure as it is limited to the point in time at which observation takes place. Be careful not to observe a document. Documents should be inspected.
- **External confirmation** → Not used when testing a control, only for substantive procedures.
- **Recalculation** → Not used when testing a control, only for substantive procedures.
- **Reperformance** → This is when the auditor reperforms a specific control procedure carried out by the client. For example: reperforming the monthly bank reconciliation to confirm that the internal control of balancing the cash book and the balance per the bank statement has been properly carried out. Reperformance is also considered to be a dual-purpose test.
- **Analytical procedures** → Not used when testing a control, only for substantive procedures.
- **Inquiry** → On its own, inquiry is not considered to be sufficient and therefore can be used in combination with other audit procedures. An example is to inquire from the credit controller what functions each member of her department carries out and what control procedures are in place.

From the explanations above, it is clear that you mainly perform tests of controls by inspecting, observing, reperformance and inquiry. Inspect and reperform are the best tests of controls to perform, alternatively if evidence of an internal control cannot be obtained by inspecting or reperforming, the auditor can consider whether he can observe or inquire that the internal control is performed correctly.

WHAT: Here you should make reference to the source document and/or the action (control) being performed (e.g. counting the inventory).

WHY: This describes the reason for performing a test of control. What are the internal control objectives again?

Occurrence and authorisation:

- Occurrence All recorded transactions and events actually occurred and pertain to the entity.
- Authorisation this objective is mentioned in ISA 315 par A97 and simply means that all transactions are authorised in accordance with entity/management policies.

Completeness and accuracy:

- Completeness All transactions and events have been recorded.
- Cut-off transactions and events have been recorded in the correct accounting period.
- Accuracy Amounts and other data relating to recorded transactions and events have been recorded appropriately.
- Classification Transactions and events have been recorded in the proper accounts.

Example 1:

- Inspect the clock card summary reconciliation for the manager's signature as evidence of approval.
  - Inspect = HOW = verb
  - Clock card summary reconciliation = WHAT = Source document

For the manager's signature as evidence of approval = WHY = reason = authorisation (approval)

See p 101 exercise!!

Formulating tests of controls for computerised systems

A test of control using test data should address the following:

HOW:

This is the **verb** that describes the action to the performed. Previously we identified the verbs as inspection, observation, external confirmation, recalculation, reperformance, analytical procedures and inquiry. We also identified that you perform tests of controls by inspecting, observing, reperforming and inquiring. When you are testing an internal control by means of test data, you are **reperforming** the internal control to establish whether it is working effectively. You will mostly start your sentence with "Attempt to …"

WHAT:

Here you should make reference to the **action (control)** being performed (e.g. gain access to the system by entering a fictitious username and password).

WHY:

This describes the **reason** for performing a test of control. Your test data may either be valid or invalid. With valid test data your action should be accepted and with invalid test data your action should be rejected.

The following are examples of **well** worded test of control using test data:

Example 1:

- Attempt to gain access to the sales system by entering a fictitious username and password and confirm that it is rejected.
  - Attempt to = **HOW** = reperformance when using test data.
  - To gain access to the sales system by entering a fictitious username and password = **WHAT** = action being performed.
  - And confirm that it is rejected = **WHY** = reason = authorisation.

Example 2:

- Attempt to gain access to the sales system by entering a valid username and password and confirm that it is accepted.
  - Attempt to = **HOW** = reperformance when using test data.
  - To gain access to the sales system by entering a valid username and password = **WHAT** = action being performed.
  - And confirm that it is accepted = **WHY** = reason = authorisation.

See p 108 exercise!!

Exam Technique

After completing the activity, you should have a better knowledge and understanding of how tests of controls should be formulated in a manual and automated business environment.

A hint on how to attempt a tests of controls question in the examination:

o If you are asked to formulate or describe tests of controls in a question remember that you can only test the internal controls described in the question.
o Your first step would thus be to identify the internal controls given in the question, both the manual internal controls as well as the automated internal controls.
o After identifying the internal controls, you will have to describe tests of controls to test the internal controls you have identified. Describe your tests of controls in terms of **HOW**, **WHAT** and **WHY**.

Tests of controls can be asked in the following manner in the examination: **REQUIRED**	**HOW SHOULD YOU ANSWER THE REQUIRED**	
*Formulate the **tests of controls** that you will perform to test the **manual and automated** internal controls described in the scenario.*	To answer this type of question, you should describe all relevant tests of controls to **test both manual and automated internal controls**, for example inspect, observe, reperform and inquire including audit procedures using valid and invalid test data.	
*Formulate the **tests of controls** that you will perform to test the **manual** internal controls described in the scenario.*	To answer this type of question, you should describe tests of controls to **test manual internal controls** only, for example, inspect, reperform, observe, and inquire. You will **not** include any audit procedures using test data.	
*Formulate the **tests of controls** that you will perform to test the **manual and automated** internal controls described in the scenario. If you make use of audit procedures using test data to test the automated controls, limit your answer to **invalid** test data.*	To answer this type of question, you should describe all relevant tests of controls to **test both manual and automated internal controls**, for example inspect, observe, reperform and inquire **including** audit procedures using **invalid** test data only.	
*Formulate the **tests of controls** that you will perform to test the **automated** internal controls by using **invalid test data only**.*	To answer this type of question, you should only formulate invalid test data to test the automated internal controls.	
*Formulate the **tests of controls** that you will perform to test the **automated** internal controls by using **valid test data only**.*	It is unlikely that we will require you to describe audit procedures using valid test data only. However, to answer this type of question, you should only formulate valid test data to test the automated internal controls.	

AUDIT EVIDENCE
sufficient, reliable, relevant *and* ***useful***

Reasonable assurance means that internal auditors strive to obtain sufficient appropriate evidence to provide a reasonable basis for formulating their conclusions and advice.
Internal auditors are rarely, if ever, in a position to provide absolute assurance regarding the truthfulness of management's assertions regarding the system of internal controls and performance.
Even experienced internal auditors are rarely convinced beyond all doubt.
This is due to the nature and extent of evidence they gather and the types of decisions they make.
Frequently, internal auditors must rely on evidence that is persuasive rather than absolutely convincing, and audit decisions are rarely black and white.
Moreover, internal auditors' conclusions and advice must be formed at a reasonable cost within a reasonable length of time to add economic value.

The defining characteristics of **persuasive evidence** are **relevance, reliability,** and **sufficiency.**

Audit objectives specify what the engagement is intended to achieve.
Audit procedures are the specific tasks performed by the internal auditor to gather the evidence required to achieve the prescribed audit objectives,

The nature of **audit procedures** relates to the types of tests the internal auditor performs to achieve his or her objectives.
The extent of audit procedures pertains to how much audit evidence the internal auditor must obtain to achieve his or her objectives.
The timing of audit procedures pertains to when the tests are conducted and the period of time covered by the tests

Common **analytical procedures** performed by internal auditors include analysis of common-size financial statements, ratio analysis, trend analysis, analysis of future-oriented information, external benchmarking, and internal benchmarking.

Common types of computer assisted audit techniques (CAATs) include
- generalised audit software,
- utility software test data,
- application software tracing and mapping,
- audit expert systems
- continuous auditing.

The types of **operations that internal auditors** can perform with generalised audit software (GAS) include:
• Examining files and records for validity, completeness, and accuracy.
• Recalculating recorded values and calculating other values of audit interest.
• Selecting and printing samples and calculating sample results.
• Comparing information in separate files.
• Summarising, resequencing and reformatting data.
• Creating pivot tables for multidimensional analysis.
• Searching for anomalies in data that may indicate errors or fraud.
• Preparing and printing reports.
• Automatically generating a historical log of data analyses performed.

Professional scepticism means that internal auditors take nothing for granted;
they continuously question what they hear and see and critically assess audit evidence.
They do not assume by default that auditee personnel are either honest or dishonest.
Applying professional scepticism throughout the engagement helps internal auditors remain unbiased and maintain an open mind to form judgements based on the preponderance of evidence gained during an engagement, and not just individual pieces of information.

Observation does provide evidence about whether operating activities are aligned with prescribed policies. It is used, for example, to test segregation of duties. Individuals may, however, behave differently than they would otherwise when they know they are being observed. Observation generally is used to test existence and occurrence, not completeness.

The working papers should identify the audit objectives, that is, what the engagement team expects to achieve, the procedures the team used to achieve its objectives, and the conclusions reached by the team based on its test results. The working papers also should contain the engagement teams observations, or "pertinent statements of fact" that "emerge by a process of comparing what should be with what is" and the team's recommendations, which are based on its conclusions and observations.

The **procedures an internal auditor** might use to gain an understanding of how the computers were acquired, used, and accounted for include:
•Inquiries of personnel directly involved in acquiring, using, and accounting for the computers.
•Observing personnel using the computers.
•Inspecting the accounting records and supporting source documents.
Vouch the purchase orders for the computers to approved purchase requisitions

BASIC PRINCIPLES OF SAMPLING J&S chapter 5
The following factors have a direct influence on the nature and size of sampling:
• the efficiency of the internal control systems
• the materiality of the population under review
• the volume of the transactions/the method of record keeping
• the relative risk applicable to the population in relation to the objectives of the organisation and the specific activity under review
• the nature of the audit evidence
• a suggestion of irregularities in the population
• compulsory accounting disclosure
• extraordinary items

Statistical and non-statistical sampling
There are two basic types of sampling:
(1) non-statistical sampling (judgemental sampling)
(2) statistical sampling
Statistical sampling is based on scientific principles whereas judgemental sampling is applied purely on the basis of the auditor's judgement. Statistical sampling can be based on either attributes or values.
Statistical sampling for attributes includes the following sampling methods:

- estimation sampling for attributes
- acceptance sampling
- discovery sampling

Statistical sampling for values includes the following sampling methods:

- estimation sampling for variables (classical variables sampling)
- monetary unit sampling (probability proportional to size sampling)

Sampling terminology p123 -151

Population

A population comprises the total number of items from which the sample must be selected.

stratification

In addition to the population size, attention must be paid to the homogeneity of the population. If the population is not reasonably homogeneous, an impractical sample size will have to be used. Ensuring the homogeneity of the population often requires dividing it into two or more smaller, homogeneous groups. This is known as stratification.

Sample

A sample is an adequate number of sample units selected from a population to ensure that it is representative of the population as a whole – in other words, the sample must more or less reflect the same attributes as the population itself.

randomness, it is essential for sample units to be selected from the population in such a way that each sample unit has an equal chance of being included in the sample.

Audit risk

During the planning phase of the audit, the internal auditor uses his or her professional judgement to determine the level of audit risk applicable. Audit risk includes the risk that

- material errors may occur
- the client's system of internal control will not guarantee the prevention or correction of such errors (control risk)
- any remaining material errors will not be discovered by the auditor (detection risk)

Non-sampling risk

Non-sampling risk may originate when the auditor employs sampling or other audit procedures, and include, for example, the risk that the auditor may use inappropriate procedures or misinterpret evidence, thereby failing to discover an error.
The aim of the internal auditor should be to reduce non-sampling risk to an acceptable level by means of proper planning, management, supervision and reviewing.

Sampling risk

Sampling risk with regard to both compliance and substantive tests originates as a result of the possibility that the auditor's conclusion, based on a sample, may differ from his or her conclusion, had the entire population been subjected to the same audit procedure

Determining the acceptable error rate (tolerable deviation rate)

The acceptable error rate is the total number of errors which the auditor is prepared to accept within a given population (expressed as a percentage of the population). The following factors must be taken into account:
• materiality
• the risk that the non-discovery of an error will have a material influence on the findings of the auditor
• the purpose of the test
the effectiveness of the system of internal control
The auditor must also take into account the fact that the lower (smaller) the rate at which the acceptable error rate is set, the larger the sample will be, and vice versa.

Expected error rate (expected population deviation rate)

The expected error rate is the estimated, expected number of errors which the internal auditors estimate will be present (expressed as a percentage of the population)
If the internal auditors expect errors to occur, they will normally investigate a larger sample in order to arrive at the conclusion that the population is reasonable in terms of the planned, expected error rate, or that the planned confidence in the relevant control measures has been confirmed. Smaller-sized samples are justifiable if the population is expected to be error free. In determining the expected error rate in the population, the internal auditors will consider the following factors:

- the number of errors identified in previous audits
- changes in the procedures of the audited organisation

Sample errors are errors which occur in the sample items being investigated and are indicative of the actual error rate which will be compared with the predetermined error rate in order to determine whether an investigation of the sample will suffice. Although this type of error cannot be eliminated, it can indeed be determined.
Two types of sample errors must be distinguished:

- Procedure errors. These are errors that occur in the procedures of the system of internal control,
- Substantive or monetary errors. These are errors that may have a material influence on the reasonableness of the findings, for example principle errors, omissions and calculation errors.

Non-sample errors
Non-sample errors are errors caused by human factors (e.g. errors made by the internal auditor) and are not subject to measurement. The causal factors are the following:
• failure to clearly define the nature of the audit investigation
• failure to determine a random starting point when compiling a random sample
• failure to make use of a random sample
• failure to recognise an error as a result of which the sample result is not properly evaluated, thus leading to incorrect conclusions

Confidence level *(100% minus the acceptable risk of assessing control risk too low).* This is the confidence (expressed as a percentage) which the auditor has about sample reliability and it is expressed in terms of probability. The confidence level therefore express the level of confidence that the internal auditor places in the result of sampling, for example a 100%, 95% or 90% certainty exists that the amount of stock is worth R300 000.

Precision limits
Since the internal auditor can, with the aid of estimation sampling, only make an estimate of the attributes or value of the population, the result cannot be expressed in absolute terms, especially considering that only a part of the population is being investigated
Precision limits are used in the case of the following sampling techniques:
• estimation sampling for attributes
• estimation sampling for values

Sample selection methods

- ***Random number tables***

The tables may be read in any direction, but it is essential to decide beforehand how the table will be read and then to abide by this decision throughout the entire process of compiling the sample. Should duplicate numbers occur in the sample, further readings must be taken until a sample is obtained with the required number of items. This method can only be applied if the population is numbered numerically.
The South African Lotto is possibly the best example of random numbers where each number has an equal chance of being selected, and where it is impossible to establish a pattern in the numbers or to forecast the winning numbers with any degree of accuracy.

- ***Systematic sampling***

This method entails drawing every “nth” item after using a random starting point. This method can be used effectively if the population is not numbered numerically.

- ***Sampling with the aid of a computer***

Random samples can be drawn with the aid of a computer. Computer programs which have been developed for the purpose of drawing samples are generally available. Sample variables (population size, confidence level, precision limits, etc) are fed into the computer, after which the sample is drawn randomly by the computer.

Estimation sampling for attributes

(1) What method would you use? Why?

Before you can decide on a specific method you must first clearly understand the purpose of the sample. The audit procedure states clearly that you must not only determine whether the clerks have made any mistakes, but also how effectively they have been doing their work. You, therefore, wish to determine the number of errors (or the error rate) estimated to occur in the population. The relevant technique to use would be estimation sampling for attributes. Why? Estimation sampling for attributes is used to estimate, for example, the number of compliance errors occurring in a population.

(2) How many items will you include in your sample?

Follow the seven steps below to determine the answer:

Step 1: Decide on the sample unit, which are the items you will be drawing your sample from. In this case, it is the **wage sheets**.

Step 2: Determine the population size (consisting of the sample units): given as **500 wage sheets**.

Step 3: Define the term "error" which will be the attribute you will be looking for when performing the tests: "**A control that is not functioning as intended – that may cause inaccurate recording of hours worked, wage rates, overtime hours and calculations on the work sheet.**"

Step 4: Decide on the confidence level, e.g. 90%, 95% or 99%: given as **90%**.
the terminology used for this step is determining "the acceptable risk of assessing control risk too low", which is the complement of the confidence level: i.e. if the acceptable risk of assessing control risk too low is 5%, the confidence level is 95%.

Step 5: Decide on the maximum acceptable error rate. That is the maximum number of errors which you are prepared to accept, expressed as a percentage of the population: given as **5%**.

Step 6: Decide on the precision limits -- i.e. How sure do you want to be about your sampling result (between 1% and 5%)? Given as **4%**.

Step 7: Determine the sample size by using a formula (not discussed in this module) or referring to a readily available sample size table appropriate for the sampling method decided upon, in this case "estimation sampling for attributes". Refer to the following table. Using table A, for a population size of 500 and precision as ±4%, the sample size should be 70.

You should therefore randomly select **70** wage sheets for testing.

(3) How would you select the sample items?

Randomly, with the aid of either a random number table or a computer program that can determine 70 random numbers for a given population.

For the purpose of this exercise a random number table is used. See the random number table (table A2), which follows. **Note.** A random number table could be used in several ways. You can begin your selection anywhere on the table (e.g. in row 10, column 4) and use any three digits in a number, depending on your population size or numbers (e.g. the last or middle three digits). If you want to select pre-numbered documents, say cheques numbered from 1768 to 2267, you will make use of four digits and select numbers falling within that range.

An error found on the wage sheets in the operation of the controls that ensure that the capturing of the normal hours worked, wage rates overtime worked and the calculations on the wage sheets are accurate indicates a breakdown in the control and should be noted as an error.

Say, for this example, you discover five errors.

The actual error rate is 5/70x100 = 7.14%.

Based on this calculation, you have to decide whether or not you can accept the population on the strength of this sample result.

To make this decision, you have to go back to the parameters that were set when you designed your statistical sample. In this example, the following applies:

(1) population: 500 wage sheets
(2) confidence level: 90%
(3) precision limits: ±4%
(4) acceptable error rate: 5%

You have been instructed to use an acceptable error rate of 5% and precision limits of ±4%.

To be acceptable, your **actual error rate** should therefore fall between (5-4=)1% and (5+4=)9%. The actual error rate calculated above is 7.14%. Since it falls within the acceptable error rate margins of 1% to 9%, you can conclude that you are 90% confident that according to the tests performed on wage sheets, the work performed by the wage clerks is effective.

Acceptance sampling (stop and go sampling)

You are auditing payments and need to establish whether all invoices are properly authorised before payment. You have to select the payments – say cheques issued for a certain period – and check that supporting documents have been signed by the person who signed the cheque.

- The population size is 1 000 cheques issued.
- You have decided on an acceptable error rate of 2%.
- You want to be 90% confident of your result.

(1)What method would you use? Why?

Before you can decide on a specific method you must first clearly understand the purpose of the sample. The audit procedure states clearly that you must determine whether all payments have been authorised. You will be happy with an error rate of up to 2%, but if the actual error rate reaches above 2% you will stop the testing and conclude that you cannot rely on the control. The relevant technique to use would be Acceptance (stop or go) sampling. Why? Acceptance sampling will help you to determine whether there is more than a 2% error rate (cases of non-compliance) in the population.

(2) How many items will you include in your sample?

Follow the six steps below to determine the answer:

Step 1: Decide on the sample unit, that is the items you will be drawing your sample from. In this case, it is pre-numbered cheques.

Step 2: Determine the population size (consisting of the sample units): given as **1 000 cheques issued**.

Step 3: Define the term "error" which will be the attribute you will be looking for when performing the tests: **"A cheque issued for which no authorisation for payment can be found on the corresponding documents."**

Step 4: Decide on the confidence level, e.g. 90%, 95% or 99%: given as **90%.** Step 5: Decide on the maximum acceptable error rate. That is the maximum number of errors which you are prepared to accept, expressed as a percentage of the population: given as **2%**.

Step 6: Determine the sample size either by using a formula or by referring to a readily available sample size table appropriate for the sampling method decided upon: in this case "acceptance sampling". Refer to table B, which follows.

• Use a table with the relevant population size (1 000 in this example).
• Scan the "error rate in population" column until you find 2%.
• Scan the 2% column until you find a probability of acceptance which is approximately equal to 100% minus the desired confidence level, in this case 100-90 = 10%. The exact figure of 10% does not appear in the column. You thus need to select the figure which closely approximates 10. Each of the figures in the table represents a different sample size. You must use 11.9% since it represents the smallest sample, namely 100, in which no errors may occur. However, this is not always the case. Refer, for instance, to the "0" in the second column.

(3) How would you select the sample items?

Randomly, with the aid of either a random number table or a computer program that can determine 100 random numbers for a given population.

For the purpose of this exercise a random number table is used. See the random number table already provided (table A2).

For the purpose of this exercise, start at column 3, row 4, in the random number table (table A2) and work sidewards. Select the first 1 000 items that are between 1 and 1 000, using the first four numbers from the left of the values given in the column. Skip values outside the population and select replacements for any duplicate numbers selected.

The first 21 items selected would then be 624, 785, 612, 690, 546, 797, 342, 942, 711, 817, 236, 101, 414, 705, 999, 669, 917, 559, 25, 248, 735. Continue until 100 items have been selected.

Say the cheques are numbered from 24681 to 25680, cheque number 24681 will be item number 1 and cheque 25680 will be item number 1 000. Item 624 will constitute cheque number 25304. For each of these cheques selected, obtain the supporting documentation and check if it has been signed for approval of payment

(4) How would you evaluate the results to determine whether you can draw a conclusion about the audit procedures you performed on the sample? If the sample contains no errors, it can be accepted with 88.1% (100-11.9) confidence that the population contains 2% or fewer errors. As soon as an error (or more errors than those indicated in column 2 of the table) is found, it can thus be accepted with 88.1% confidence that the population contains more than the acceptable 2% of errors. However, the actual error rate is unknown.

Discovery sampling

You are investigating an abnormal increase in goods returned notes being issued over the past six months. You decide to perform random tests to determine whether customers sign for receipt of the items despatched to them:
Population size: 1 000 delivery notes
Confidence level: 96%
Acceptable error rate: 3%
Attribute to be investigated: that delivery notes are signed by the customer

(1)What method would you use? Why?

Before you can decide on a specific method you must first clearly understand the purpose of the sample. You expect that deliveries of goods are not all signed for. You will be happy with an error rate of up to 3%, but if the actual error rate reaches above 3% it will prove your suspicions. The relevant technique to use would be discovery sampling. Why? Discovery sampling will help you prove that there is more than a 3% rate of non-compliance in the population.

(2) How many items will you include in your sample?

Follow these six steps to determine the answer:

Step 1. Decide on the sample unit: i.e. the items you will be drawing your sample from. In this case, it is delivery notes.

Step 2. Determine the population size (consisting of the sample units): given as **1 000 delivery notes**.

Step 3. Define the term "error" which will be the attribute you will be looking for when performing the tests: **"A delivery note not signed by the customer or a missing delivery note."**

Step 4. Decide on the confidence level, e.g. 90%, 95% or 99%: given as **96% (always high in discovery sampling).**

Step 5. Decide on the maximum acceptable error rate. That is the maximum number of errors which you are prepared to accept, expressed as a percentage of the population: given as 3**%**.

Step 6. Determine the sample size either by using a formula or by referring to a readily available sample size table appropriate for the sampling method decided upon. In this case "discovery sampling". Refer to table C, which follows:

- Use a table with the relevant population size (1 000 in this example).
- Search under the acceptable error rate, namely 3%, until you find a confidence level of 96%; this indicates a sample size of 100.

(3) How would you select the sample items?

Randomly, with the aid of either a random number table or a computer program that can determine 100 random numbers for a given population.
Refer to the previous two exercises to see how this is done.

(4) How would you evaluate the results to determine whether you can draw a conclusion about the audit procedures you performed on the sample?

If no errors are discovered in the sample, it can be accepted with 96% confidence that the population has 3% or fewer errors. As soon as one error is discovered, the technique has achieved its objective and the sample need not be investigated further. It has thus been shown with 96% confidence that the population contains more than 3% of errors. However, the actual error rate is not known.

STATISTICAL SAMPLING IN TESTS OF MONETARY VALUES
Probability proportional to size sampling (PPS) (also known as monetary unit sampling [MUS] or dollar-unit sampling)
Total value of the population – R7 350 000
Internal control – reasonable
Confidence level – 90%
Monetary precision – R69 000 (P)

TABLE A										
Reliability factors (R)	1,0	1,1	1,2	1,3	1,4	1,6	2,0	2,3	3,0	4,6
Confidence levels	63%	66%	69%	72%	75%	80%	86%	90%	95%	99%

1. **Monetary unit sampling (MUS)**
Monetary unit sampling (MUS) is a statistical sampling method in which each rand (monetary value) in an accounting population stands an equal chance of being selected for a sample. The probability of an item being included in the sample is thus directly linked to the monetary value of that item. The definition of a sample unit is therefore changed from a physical unit (invoice, stock item) to an individual rand (R1,00).

2. Calculation of the number of sample items
Use table A to process the **confidence level** to a **reliability factor:** 90% = 2,3 (R)

Calculate the J-factor:
J = Monetary Precision/Reliability Factor = R69 000/2.3 = R30 000

Calculate the sample size:
Sample size = Total value of population / J-factor = R7 350 000 / 30 000 = 245 items

TOPIC 5: DEVELOPING AUDIT PROGRAMMES

For each of the assertions -- **occurrence**, **completeness**, **accuracy**, **cut-off** and **classification** -- identify
• A possible error that can occur;
• an example of a control activity to prevent, detect or correct each error; and
• describe a test of control for each of the control activities mentioned
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For each of the risks with regard to the ordering of goods, listed by Jackson *&* Stent on page 11/9, describe a control that will limit the risk and describe a test of control to assess the effectiveness of the control.
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TOPIC 6: SUBSTANTIATING AUDIT FINDINGS

TOPIC 7: DEVELOPING AUDIT FINDINGS AND RECOMMENDATIONS

Steps that the internal auditor should follow when reporting on an audit engagement:
Step 1: Do meaningful analysis, interpretation and classification of the information collected.
Step 2: Process the audit findings.
Step 3: Discuss the findings with the auditee.
Step 4: Draw up the draft report.
Step 5: Get final approval of the audit report.

Audit findings:

Criteria:	To identify the criteria applicable in a specific situation you need to include the following two elements: •the goals, objectives and operating standards that represent what the audited operation needs to accomplish •the quality of the accomplishment (This information should have been identified in the planning phase of the engagement.)
Condition:	This involves the facts as determined by the audit procedures performed by the internal auditor.
Cause:	The underlying cause explains why the condition deviates from the criteria. (Identifying the correct underlying cause requires experience on the part of the internal auditor, and here the input of the senior internal auditor on the engagement or the CAE is invaluable.)
Effect:	The effect must clearly indicate the impact of the deviation from the established criteria. If there is no possible impact it will not be necessary to implement corrective measures, and the management of the organisation can revisit the necessity of the initial criteria to establish whether they are still relevant.