



ACCRA INSTITUTE OF TECHNOLOGY

The University of the Future

END OF TRIMESTER EXAMINATIONS

MAY 2022 TRIMESTER

DATE: SEPTEMBER 2022

COURSE CODE: IT454

**COURSE TITLE: COMPUTUTER FORENSICS/INFORMATION
SYSTEMS AUDIT**

LECTURER'S NAME: EMMANUEL ADOTEY PAPPOE

COURSE OUTLINE (MAIN TOPICS)

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MajorTopic-1	Introduction to Computer Forensics
MajorTopic-2	Investigative Process Methodology
MajorTopic-3	Data Acquisition
MajorTopic-4	Processing Crime and Incident Scenes
MajorTopic-5	Ethics
MajorTopic-6	Introduction to Information Systems Audit
MajorTopic-7	IT-Governance
MajorTopic-8	Information Systems Acquisition
MajorTopic-9	Information Systems Operations and Business Resilience
MajorTopic-10	Information Asset security and Control

PART A

FOUR QUESTIONS ANSWER THREE

Question 1

a) User Acceptance Test is crucial in determining that user requirements have been validated, the system is performing as anticipated and internal controls work as intended. Discuss seven (7) of the essential reviews that an IS auditor should undertake in this phase.

Major Topic- Information	CR	7
Systems Acquisition		

b)Chain of custody protects the integrity and reliability of the evidence. Explain the guidelines that are required in the chain of custody process

Major Topic- Data	AN	6
Acquisition		

c) When professionals fail to uphold a minimum level of ethical standards, the resulting impact can lead to potential digital evidence being overlooked or disregarded during an investigation. Explain to your client the difference between personal ethics, professional ethics and

computer ethics stating why they these principles must be followed during an investigation.

Major Topic- Ethics and Professional Conduct	AP	7
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TOTAL SCORE: 20

MARKS

Question 2

a)Enterprise Governance of Information Technology (EGIT) is about the stewardship of IT resources on behalf of all stakeholders (internal and external) who expect their interests to be met. Explain the three processes that when implemented will provide feedback on value delivery and risk management as well as ensure that IT aligns with and supports the enterprise's objectives and its realization of promised benefits.

Major Topic- IT-Governance	AN	7
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b) The goal for maintaining the authenticity of digital evidence is to demonstrate that it is the same data as what was originally seized. From the legal perspective, explain authentication stating at least the three (3) main qualities in computer forensics.

Major Topic – Introduction to	AP	7
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Digital Forensics		
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- c) Audit is conducted for a variety of reasons. Briefly explain the three (3) main reasons or benefits of audit.

Major Topic – Intro. To Information Systems Audit	AP	6
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TOTAL SCORE: 20

MARKS

Question 3

- a) Ethical values and principles are a useful way for sorting out what is considered good and bad behavior and conduct. Discuss with at least one (1) example each, the fundamental values and principles of ethical behavior and conduct that are required by digital forensic practitioners.

Major Topic- Ethics and Professional Conducts	AN	7
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- b) Organizations need to conduct themselves ethically because they have to exist in a competitive global landscape and demonstrating these

values brings credibility. Elaborate on the three importance of ethics to organizations.

Major Topic - Ethics and Professional Conducts	AN	7
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c) The credibility of any IS audit activity is largely determined by its adherence to commonly accepted standards. Discuss five (5) basic standards that IS auditors are required to conform with.

Major Topic – Intro. To Information Systems Audit	AP	6
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TOTAL SCORE: 20

MARKS

Question 4

a) After a crime scene perimeter has been defined, practitioners must record details about the crime scene. Critically examine the best practices when shooting video or taking photographs to document a crime scene.

Major Topic- Investigation Process methodology	AN	7
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b) To achieve effective information security governance, management must establish and maintain a framework to guide the development and management of a comprehensive information security program that supports business objectives. Elaborate on the elements of an Information Security Governance Framework.

Major Topic- IT- Governance	AN	7
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c) Within the International society of Forensic Computer Examiners (ISFCE) Code of Ethics, a Certified Computer Examiner (CCE) will, at all times follow some basic principles in carrying out their duties. Discuss five (5) of these principles

Major Topic – Ethics and Professional Conducts	AP	6
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TOTAL SCORE: 20

MARKS

PART B

TWO QUESTIONS ANSWER ALL

Question 1

a) CAATs are important tools that an IS auditor uses to gather and analyze data during an IS audit or review. They provide a means to gain access and analyze data for a predetermined audit objective and to report the audit findings with emphasis on the reliability of the records produced and maintained in the system. The reliability of the source of the information used provides reassurance on findings generated. Explain six (6) factors to consider when selecting Computer-Assisted Audit Techniques (CAATs).

Major Topic - Intro. To Information Systems Audit	CR	7
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b) The objective of the information security program is to provide assurance that information assets are given a level of protection commensurate with their value or the risk their compromise poses to the organization. Discuss the benefits/importance of implementing an effective information security governance.

Major Topic – IT	EV	7
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Governance		
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c) The International Organization on Computer Evidence (IOCE) was created to provide international law enforcement agencies a forum to collaborate and exchange information about computer crime investigations and other forensics issues involving technology. Explain the standardized international principles for recovery of digital evidence.

Major Topic – Introduction to Computer Forensics	EV	6
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TOTAL SCORE: 20

MARKS

Question 2

a) Risk-based audit planning is the deployment of audit resources to areas within an organization that represent the greatest risk. It requires an understanding of the organization and its environment. Discuss the four (4) critical areas that needs to be specially understood by the Information System Auditor.

Major Topic- Intro. To Information Systems Audit	CR	7
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- b) The objective of benefits realization is to ensure that IT and the business fulfill their value management responsibilities, particularly that IT-enabled business investments achieve the promised benefits and deliver measurable business value. Explain the elements that needs to be considered when performing a project benefits realization.

Major Topic - Information Systems Acquisition	EV	7
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- c) The goal of computer forensics is to perform a structured investigation while maintaining a documented chain of evidence to find out exactly what happened on a computing device and who was responsible for it. Explain with examples the digital forensics process model

Major Topic – Investigating Methodology	CR	6
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TOTAL SCORE: 20 MARKS

