

LAIKIPIA



UNIVERSITY

# UNIVERSITY EXAMINATIONS

1<sup>ST</sup> SEMESTER 2023/2024 ACADEMIC YEAR

FOURTH YEAR EXAMINATION FOR THE DEGREE  
OF BACHELOR OF ARTS IN CRIMINOLOGY AND  
SECURITY STUDIES

**CRSS 416: FIRE & SAFETY PROTECTION**

***STREAM:***

***TIME: 2 HRS***

***DAY: THURSDAY [11.30-13.30 P.M]***

***DATE: 14/12/2023***

**THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES**

**PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.**



Instructions: Answer all questions in **SECTION A** and any **TWO** in **SECTION B**

**SECTION A (30 MARKS)**

**QUESTION ONE**

- (a) Define the term safety protection **(5 Marks)**
- (b) Examine the impact of fire risk on affected groups **(5 Marks)**
- (c) Examine the concept of fire chemistry **(10 Marks)**
- (d) How does a fire tetrahedron manifest itself? **(10 Marks)**

**SECTION B (40 MARKS)**

**QUESTION TWO**

- (a) Discuss the fire control preventive and protective measures that will protect persons in the event of a fire **(10 Marks)**
- (b) Discuss the four factors one should consider when choosing a particular automated fire detection system **(10 Marks)**

**QUESTION THREE**

- (a) Examine the sequence followed in development of a fire safety programme **(10 Marks)**
- (b) Discuss the objectives of a fire safety programme **(10 Marks)**

**QUESTION FOUR**

- (a) Examine four automatic fire detection systems that you are aware of **(10 Marks)**
- (b) Examine four methods used to extinguish fire **(10 Marks)**

**QUESTION FIVE**

- (a) Discuss the basic types of automatic sprinkler systems **(10 Marks)**
- (b) Carbon dioxide is primarily used for flammable and combustible liquid fires and electrical equipment fires. Isolate the hazards where carbon dioxide is used effectively **(10 Marks)**

