

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

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

**CRSS 432: FIRE SAFETY AND PROTECTION**

**STREAMS: BA CRSS Y4S1**

**TIME: 2 HOURS**

**DAY/DATE: MONDAY 29/03/2021**

**2.30 P.M. – 4.30 P.M.**

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**SECTION A (Compulsory)**

- Q1 a) i) Define a fire load and describe factors that influence it (8 marks)  
ii) State the tactical objectives of fire suppression (6 marks)
- b) (i) Write brief notes on stages of a fire (12 marks)  
(ii) Outline factors that can impair the effectiveness of a fire protection system (4 marks)

**SECTION B (ANSWER ANY TWO QUESTIONS)**

- Q2 a) Outline components of Fire Safety Audit Checklist (8 marks)  
b) Outline the components of fire and state the significance (8 marks)  
c) State the factors for consideration when selecting a fire protection system (4 marks)
- Q3 a) (i) Define back draught (2 marks)  
ii) Discuss how a back draught condition can be created (9 marks)  
b) Discuss warning signs of a back draught (9 marks)
- Q4. Discuss the suitability and unsuitability of the following fire extinguishers for various fire scenarios
- i). Water mist extinguishers; (5 marks)  
ii). Carbon dioxide extinguishers (5 marks)  
iii). Foam forming extinguishers (5 marks)

iv). Halon 1301 extinguish (5 marks)

Q5 a) Fire is extinguished by removal of specific fire components. Using a table, describe the fire components that must be removed, the extinguishing agents used, the type of reaction and process of reaction (16 marks)

b) Identify types of fire protection systems that exist in Chuka University and give examples (4 marks)

Q5. Write brief notes on the following

- i. Fire Drills
- ii. Fire Safety Committees
- iii. Fire assembly points
- iv. Emergency response

(20 marks)

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