



Republic of Rwanda
City of Kigali



GASABO DISTRICT

DISTRICT COMPREHENSIVE ASSESSMENT, RTQF LEVEL3 2022-2023

TRADE: ICT AND MULTIMEDIA

Level :3 NETWORKING AND INTERNET TECHNOLOGIES

MODULE: CCTV CAMERA INSTALLATION

DATE OF EXAM: 20/03/2023 Duration: 3hours

ACADEMIC YEAR: 2022-2023

Instructions:

- 1. Answer all questions in section A (55 Marks)**
- 2. Answer three question in section B (30 Marks)**
- 3. Answer one question in section c (15 Marks)**

SECTION A

- 1. What does CCTV means? /5 Marks**
- 2. What are the benefits of cable trucking? /5Marks**
- 3. With short explanation, Enumerate Main components of a CCTV System /5mark**
- 4. Discuss different types of camera mounts and list down one benefit for each type? /4 Marks**

5. What is the role of keyboard and mouse in CCTV Camera system? **/4 Marks**
6. List down 5 factors you need to consider when buying a CCTV Camera?
/5Marks
7. Outline the STEPS to be followed when installing a camera? **/4 Marks**
8. Answer by True or False: The following is a component of a CCTV system?
/0.5 for each Marks
- a. Cameras
 - b. Lenses
 - c. Housings and mounts
 - d. Monitors
 - e. Switchers
 - f. Multiplexers
 - g. USB
 - h. VGA
 - i. Video recorders
 - j. BNC Cable
9. Discuss different types of camera mounts and list down one benefit for each type? **/4 Marks**
10. Outline five examples of CCTV controller devices? **/5 Marks**
11. Write the following acronyms in full: **/5 Marks**

- a. FOV : **1marks**
- b. CCTV: **1mark**
- c. NIC : **1mark**
- d. UTP: **1mark**
- e. DVR: **1mark**
- f. NVR: **1mark**

12. List down 5 factors you need to consider when buying a CCTV Camera? **/5Marks**

Section B: Attempt ALL four (4) Questions of this Section /30Marks

13. Outline the STEPS to be followed when installing a camera? **/4 Marks**

14. Lenses are available in three basic types. List down them? **/10 Marks**

15. Discuss the common problems that are most occurring in CCTV Cameras system? **/10 Marks**

16. All CCTV cameras include three basic elements shown in column A. their roles are shown in the column B. in the following table, Match the column to the column B. **/10 Marks**

ANSWERS	A. basic elements	B. role
1..... c/3.5marks	1.Image sensor	a. Organizes, optimizes, and transmits video signals.
2.. b /3.5marks	2. Lens	b. Gathers light reflected from a subject and focuses the light on the image sensor,
3.. a /3marks.	3. Image processing circuit	c. Converts light (photons) into electronic signals

SECTION C ATTEMPT ONE QUESTION

17. What are the considerations before installing a CCTV camera? /15
Marks
18. Design CCTV camera system diagram and explain working
Principal /15mark

END OF ASSESSMENT