

ALL QUESTIONS ARE COMPULSORY

- 01.** Define the following terms **3marks**
a) CCTV system
b) Field of view
c) Cable trunking
- 02.** What is the difference between IPv4 & IPv6? **4marks**
- 03.** What are the steps of fixing the CCTV camera? **3marks**
- 04.** What are the components that made up CCTV camera system? **3marks**
- 05.** What is the role of keyboard and mouse in CCTV Camera system? **2marks**
- 06.** List the controller devices used in CCTV camera system **3marks**
- 07.** What are the different between straight through and crossover cable? And give example of their use **4marks**
- 08.** a. Define network topology **5marks**
b. By the help of drawing, explain ring topology, star topology and Bus topology
- 09.** What are the three basic elements of CCTV camera? **3marks**
- 10.** What is the difference between digital signal and analogue signal? **2marks**
- 11.** Write the following acronyms in full: **3marks**
a. FOV :
b. CCTV:
c. BNC :
d. UTP:
e. DVR:
f. NVR:
- 12.** List four types of CCTV cameras. **4marks**
- 13.** What are three types of CCTV systems cable commonly used today? **3marks**
- 14.** Differentiate wired transmission and wireless transmission **3marks**

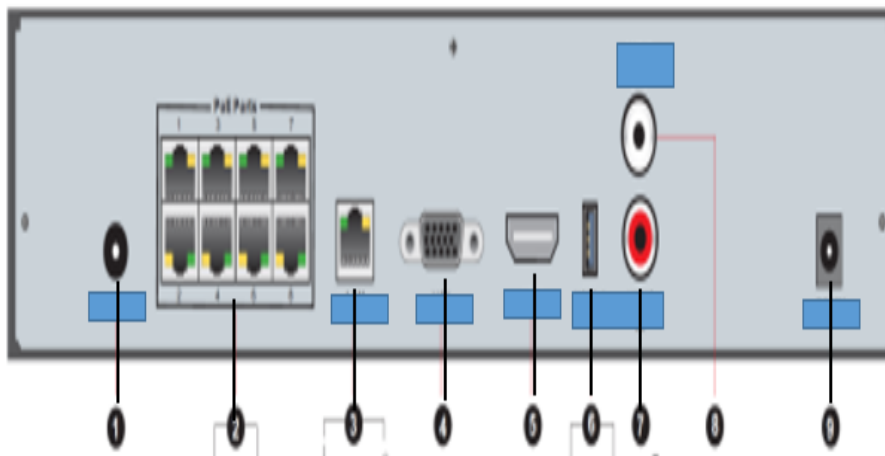
15. What are three factors that camera needs in order to cover far area or wide area? **3marks**

16. What are the benefits of cable trunking? At least three benefits **3marks**

17. Select tools, materials and equipment in the following list: **4marks**

- SCREWDRIVER
- DVR
- PIPES
- PLIER
- NVR
- JUNCTION BOX
- HAMMER
- TRUNKING
- CAMERA

18. Observe the figure below, then answer the questions: **10marks**



A. What is the name of that figure **/1mark**

B. Name the parts of that figure as numbers are indicated. **/9marks**

19.

10marks

Fill the following table by Comparing NVR and DVR Security System			
Comparison	Full Form	NVR/DVR Cameras	Transmission Cables
NVR			
DVR			

20. Discuss the common problems that are most occurring in CCTV Cameras system?

10marks

21. 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 A to the column B.

10marks

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

22. Discuss the five considerations before installing a CCTV camera?

10marks

23. Design a good standard CCTV camera system with all necessary equipment attached to it.

15marks