

Name: [redacted]

Quiz, Thursday May 28, 2009

- A) Indicate in what system each functionality is to be considered
- | | |
|---------------------------|-----------------|
| <u>Functionalities:</u> | <u>Systems:</u> |
| Fire alarm (a) ✓ | a) Audio/Video |
| TV distribution (a) ✓ | b) Safety |
| Intrusion detection (a) ✓ | c) Security |
| Internet access (a) ✓ | d) Automation |
| Energy Management (d) ✓ | e) Networking |

70/100

- B) Among the following cables what are those used for digital transmission:

12.5 UTP - STP - Coax - RGB

- C) List four advantages of Fiber Optics:

12.5 EMI immunity
Noctive Proof
Safe installation
High speed and secure communication

- D) Give the meaning of the following networks' abbreviations:

VPN: Encapsulation and Routing VPN Protocols

8

WWAN: open standards like GSM

WPAN: 20ft. 330ft

meaning of abbreviat...

- E) Give the meaning of the following items:

Fire door:

Means of egress:

Fire Separation distance:

- F) In what condition a radiation detector is used?

12.5 Used in free line site, in outdoor places
Used in combustible stores
Complement to heat & smoke

- G) Why a fire alarm circuit is normally closed?

4.5 a fire alarm circuit is normally closed for protection and fault indicators How??

- H) A surface of 3 m² is at 2 m distance from a source which uniformly radiates light of 60 cd. The average surface illumination is 12 lx.

Calculate the luminous flux on the surface and the maximum illumination on it

12.5 dA = 3 m² D = 2 m I = 60 cd E_{avg} = 12 lx

$$E = \frac{dF}{dA} \Rightarrow dF = E \cdot dA = 12 \times 3 = 36 \text{ lmn}$$

The max illumination $E = \frac{I}{D^2} = \frac{60}{4} = 15 \text{ lx}$