

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--

Question Paper Code: 31962

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

Elective

Instrumentation and Control Engineering

01UIC918 - BUILDING AUTOMATION

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What is a Fire Alarm System (FAS)?
2. Name the four major classifications of FAS used in industry.
3. What is the function of power supply loops in FAS?
4. State the principle of ionization smoke detector.
5. What do you mean by 2-man rule in access controlled portals?
6. List any four types of electric locks.
7. Contrast the DVM with DVR based system with an example.
8. Mention the different types of lens used for video surveillance and safety purposes.
9. What is building management system? List any two building control applications.
10. Name any four protocols that are widely used for building automation.

PART - B (5 x 16 = 80 Marks)

11. (a) Describe open circuit security alarm system with neat diagram. (16)

Or

(b) Illustrate the architecture of fire alarm system with typical diagrams. (16)

12. (a) Classify the FAS loops and explain any two in detail. (16)

Or

(b) Describe the cause and effect matrix of FAS with a suitable example. (16)

13. (a) Explain the working function of access control system in detail. (16)

Or

(b) Describe any two biometrics based security systems with neat block diagrams. (16)

14. (a) (i) Explain the block diagram of perimeter intrusion detection system. (12)

(ii) Discuss the application of PIDS. (4)

Or

(b) Explain the analog and digital CCTV camera with neat block diagram. (16)

15. (a) Describe the architecture of building management system of honeywell with neat diagram. (16)

Or

(b) Draw and explain the architecture of direct digital control system and its application. (16)