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MANIPAL INSTITUTE OF TECHNOLOGY
Manipal University
SIXTH SEMESTER B.TECH (E & C) DEGREE END SEMESTER
EXAMINATION - APRIL / MAY 2017
SUBJECT: BUILDING AUTOMATION SYSTEMS (ECE - 4036)

TIME: 3 HOURS

MAX. MARKS: 50

Instructions to candidates

- Answer **ALL** questions.
- Missing data may be suitably assumed.

- 1A. With neat diagram explain the evolution of BAS in comparison with computing technology.
1B. Based on approach, what are the three categories IB's can be grouped into? Explain each
1C. What are the advantages of BMS? Mention any four.
(5+3+2)
- 2A. Draw the typical automobile control system with CANBUS applied. What are its advantages?
2B. Compare any six key characteristics of RS232 and RS485
2C. List any four disadvantages of using gateways in BAS
(5+3+2)
- 3A. Explain any two types of cards used in card access control systems.
3B. Draw and explain the working of ionization smoke detector
3C. Define Range and Span, of sensors with examples.
(5+3+2)
- 4A. With a neat figure explain the various components of fire alarm control panel
4B. Explain the construction of magnetic proximity sensor
4C. Explain how building orientation can affect the design of a green building.
(5+3+2)
- 5A. With a neat diagram explain single duct, constant volume, multiple zone systems
5B. Draw and explain the message format for SCADA
5C. What is DALI? What are its advantages?
(5+3+2)