Total No. of Questions : 10]

SEAT No. :

P2081

[Total No. of Pages : 2

[5059] - 695

B.E. (Instrumentation & Control) (Semester - I)

Building Automation - I

(2012 Pattern)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answers Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right side indicate full marks.***
4) ***Assume suitable data if necessary.***

Q1) a) Explain the architecture of Intelligent Building with neat sketch. **[6]**

b) Define the following term: **[4]**

i) Gauge Pressure.

ii) Vacuum Pressure.

iii) Absolute Pressure.

iv) Sealed Pressure.

OR

Q2) a) Explain working principle of Psychrometer with neat sketch. **[6]**

b) Difference between Facilities Management and Intelligent building. **[4]**

Q3) a) List various types of AHU explain any one types of AHU with neat sketch. **[6]**

b) Write a short notes on Turbine flow meter. **[4]**

OR

Q4) a) Explain Heat Recovery Technique with neat sketch. **[6]**

b) Write a short notes on Parallel blade damper. **[4]**

P.T.O.

Q5) a) Explain single duct constant volume single zone air conditioning system with neat sketch. **[10]**

b) Explain VAV system with neat sketch. **[8]**

OR

Q6) a) What is Vapour Compression Cycle? Explain any one type of condenser used in Vapour Compression cycle with neat sketch. **[10]**

b) Explain absorption chiller with neat sketch. **[8]**

Q7) a) Explain CRAC unit with neat sketch. **[8]**

b) Difference between series fan powered and parallel fan powered. **[8]**

OR

Q8) a) List Different Types of Boiler, Explain water tube boiler with neat sketch. **[8]**

b) Explain Steam Heating System with neat sketch. **[8]**

Q9) a) What is BAS System, State different Hierarchy level in BAS System with neat sketch. **[8]**

b) Explain Architecture of DDC with neat sketch. **[8]**

OR

Q10) a) Explain MODBUS RTU with neat sketch. **[8]**

b) Explain in Detail Profibus PA & Profibus DP protocol with neat sketch. **[8]**