

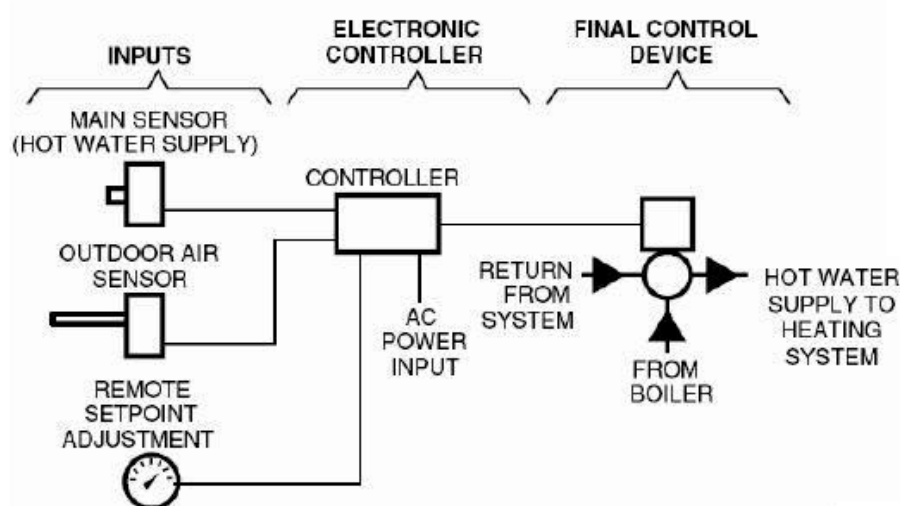
Question 1:**(12.5 Marks)****Objectives: This question is about the basic concepts RTCCS.**

Answer the following briefly: -

1. Define the term RTCCS. Explain its critical design parameter?
2. Sketch the schematic diagram of I/O pulse interfacing.
3. Write down a comparison between analog and DDC control schemes.
4. What is the main role of computer in supervisory control scheme?
5. A process receives two analog signals and generates two digital signals. It is required to sketch its interfacing schematic diagram.

Question 2:**(7.5 Marks)****Objectives: This question is about DDC system design.**

Given the following system block diagram, it is required to replace its analog controller with a microprocessor based one. Sketch its DDC real-time computer control I/O interfacing scheme, then add what is necessary from your point of view.



Simple electronic control system