

Course Title: Real-Time Computer Control Systems	Date: 20/11/2017
Course No: (630512)	Time Allowed: 50 minutes
Lecturer: Dr. Mohammed Mahdi	No. of Pages: 1

Question 1:**(12.5 Marks)**

Objectives: This question is about the basic concepts RTCCS.

Explain the following **briefly**:-

1. The choice of sampling time is considered as a critical design parameter in RTCCS.
2. The historical reasons for applying computer in control applications.
3. The advantages of using RTCCS are to eliminate the disadvantages of analog controllers.
4. The main disadvantage of the sequence control scheme.
5. Using monitoring, clock-based, or sensor based strategy is depending on the application itself.

Question 2:**(7.5 Marks)**

Objectives: This question is about DDC system design.

For the adjusting chemical dose rate 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,

