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| **National University of Computer and Emerging Sciences, Lahore Campus** | | | | |
| C:\Users\saif\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\final design.jpg | **Course:** | **Design and Analysis of Algorithms** | **Course Code:** | **CS302** |
| **Program:** | **BS(Computer Science)** | **Semester:** | **Spring 2018** |
| **Duration:** | **10 Minutes** | **Total Marks:** | **10** |
| **Paper Date:** | **6-Feb-18** | **Weight** | **4** |
| **Section:** | **C** | **Page(s):** | **1** |
| **Exam:** | **Quiz 1** | **Roll No:** |  |
| **Section:** |  |
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Write down the recurrence relation for the following algorithm and analyze its time complexity using iteration method. Show complete steps

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| **SORT(A,n){**  **if n > 1{**  **SORT(A,n-1)**  **key = A[n]**  **i = n-1**  **while i > 0 and A[i] > key**  **A[i+1] = A[i]**  **i = i - 1**  **A[i + 1] = key**  **}**  **}** |