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| **P.V.P Siddhartha Institute of Technology** | | | | | | | | | |
| **Department of Computer Science and Engineering** | | | | | | | | | |
| **Course: B.Tech** | | **Year: II** | **Semester: I** | **Objective: I** | **A.Y:2024-25** | | | | |
| **Subject Code:23CS3301** | | **Subject Name: Advanced Data Structures and Algorithm Analysis** | | | **Regulation:PVP23** | | | | |
| **Duration:20 minutes** | | **Maximum Marks:10 Marks** | | | **Date:19/09/24** | | **Session: F.N** | | |
| **Answer all the Questions. Each Question carries 2 Marks**  **5×2M=10M** | | | | | | | | | |
|  | | | | | | | | | |
| **Q.No** |  | | | | | **Marks** | | **CO** | **Level** |
| **1.** | **Find** time complexity of the following pseudo code:  Algorithm( Sum(a,n)  {  S:=0.0;  For i:=1 to n do  S := s+ a[i];  Return s:  } | | | | | **2** | | **CO1** | **L2** |
| **2.** | Write any two differences between AVL trees and B – Trees | | | | | **2** | | **CO1** | **L2** |
| **3.** | Summarize any four application areas of priority queues. | | | | | **2** | | **CO1** | **L2** |
| **4.** | Illustrate any two graph representation techniques with example. | | | | | **2** | | **CO1** | **L2** |
| **5.** | What property ensures the balanced nature of an AVL tree? | | | | | **2** | | **CO1** | **L2** |