

B.I.T. Mesra – Doohar Campus

QUIZ – I, CS 241, Design and Analysis of Algorithms

Max Marks: 10

Duration: 45 Minutes

Class: B.Tech. IV

Branch: CSE

Note:

- Attempt all questions.
  - Give necessary examples and draw the necessary diagrams.
3. Write the algorithm / programme of insertion sort. Find the best case and worst case order of insertion sort. ( 5marks)
4. Find the order of following recurrences:
- c)  $T(n) = 2*T(n/2) + C*n$  (Use Master's Theorem)
- d)  $T(n) = 3*T(n/4) + C*n^2$  (Use Recursion Tree Method)

\*\*\*\*\* Date of Exam: 05.02.2025\*\*\*\*\*