

21AIE303: DBMS, Batch A

Assignment 1:

Total Mark: 10

Date: 18/07/2025 duration time: 35 mins

File system, Relation function, Proposition logics, Binary Search Tree

- Q1:** Let A and B are following proposition. A: "Fail grade can be given."; B: "Student scores more than 50% marks". Write the logical expresion of the statement: "Fail grade cannot be given when student scores more than 50% marks.". [3].
- Q2:** $R = (a, a^3)$: a is a prime number less than 5 be a relation. Find the range of R [1]
- Q3:** If R is a relation on the set $A = \{1, 2, 3, 4\}$ defined by xRy if x exactly divides y (write R relation). Is it a transitive relation? [2]
- Q4:** What does 'data inconsistency' mean in the context of DBMS? Definition of 'database'.
- Q5:** Draw the Binary Search Tree using the following preorder and postorder of the tree. [2]
post-order: 10, 22, 15, 70, 50, 25