

K. J. Somaiya College of Engineering, Mumbai-77 (Autonomous College Affiliated to University of Mumbai)

DBMS IA2- Normalisation SY-EXCP (A and B)

Submission date: 10/04/2024 Each questions is of 05 MARKS

1. Consider relation R with five attributes ABCDE .The dependencies are $A{\longrightarrow}\,B$

 $BC \rightarrow E$ and $ED \rightarrow A$

- (a)List all the keys for R
- (b) Is R in 3NF?
- (c)Is R in BCNF?
- 2. Suppose you are given relation with four attributes ABCD. The dependencies are

2a)
$$C \rightarrow D, C \rightarrow A, B \rightarrow C$$

2b)
$$B \rightarrow C, D \rightarrow A$$

2c) ABC
$$\rightarrow$$
D,D \rightarrow A

Find the candidate keys for each subquestion and identify the best normal form and why