

**Program: B.Tech in AIML & AIDS      Academic Year: 2022      Duration: 3 hours**

**Date: 23.01.2023**

**Time: 09:00 am to 12:00 pm**

**Subject: Database Management Systems (Semester III)      Marks: 75**

- (1) This question paper contains two pages.
- (2) **All Questions are Compulsory.**
- (3) All questions carry equal marks.
- (4) **Answer to each new question is to be started on a fresh page.**
- (5) **Figures in the brackets on the right indicate full marks.**
- (6) **Assume suitable data wherever required, but justify it.**
- (7) Draw the neat labelled diagrams, wherever necessary.

[illegible]

Q4 (a)	i. Examine why normalization needed. Explain the process of normalization.	[10]
	<b>OR</b> ii. Explain Third normal form and Boyce Codd normal form with an example.	[10]
Q4 (b)	Discuss limitations of Relational Database designs.	[05]
Q5 (a)	i. What is No SQL? Discuss types of No SQL databases with example.	[10]
	<b>OR</b> ii. Explain MongoDB database with its need and feature of it in details.	[10]
Q5 (b)	Illustrate the use of Shadow Paging with example.	[05]

All the Best!