

**GUJARAT TECHNOLOGICAL UNIVERSITY****MCA – SEMESTER – 5 • EXAMINATION – SUMMER 2018****Subject Code: 2650004****Date: 07-May-2018****Subject Name: Advanced Data Base Management Systems(ADBMS)****Time: 10.30 am to 1.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain the utilities of database systems in brief. **07**  
 (b) What do you mean by Checkpoint and Rollback? How it works in recovery process? Explain. **07**
- Q.2** (a) List out the different types of records. Which type of record is advisable? Why? Explain. **07**  
 (b) Explain: pin-unpin, force/no-force, steal/no-steal, Dirty bit. **07**
- OR**
- (b) Discuss the factors for physical database design in brief. **07**
- Q.3** (a) What are the Object Oriented features available in SQL-99? Explain any two in brief. **07**  
 (b) In recent scenario, which types of multimedia data are available? Explain the multimedia data management issues in brief. **07**
- OR**
- Q.3** (a) Explain Valid Time Relations and Transaction Time Relations with suitable example. **07**  
 (b) What do you mean by DAC and MAC? Compare DAC with MAC. **07**
- Q.4** (a) Why we need backup? What are the factors for using backup? Explain. **07**  
 (b) What are the advantages and disadvantages of primary indexes and secondary indexes? Explain. **07**
- OR**
- Q.4** (a) What is the use of listener in oracle? Explain its purpose? **07**  
 (b) Explain: Public Key Encryption with its components. **07**
- Q.5** (a) Discuss the types of fragmentation. How it is useful in distributed database design? Explain. **07**  
 (b) Explain Infrastructure Less Mobile platform with its characteristics in brief. **07**
- OR**
- Q.5** (a) Mr. Rahul wants to give a grant to Mr. Ketul on database as well as on table Mangal and once the task is over Mr. Rahul will take the rights from Mr. Ketul. Write all queries required assigning the rights to/from Mr. Ketul. **07**  
 (b) What do you mean by DDBMS? Explain merits of DDBMS. **07**

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