SUBJECT CODE NO:- P-8021 FACULTY OF ENGINEERING AND TECHNOLOGY M.E. (Comp.Sci.& Engg.) Examination May/June 2017 Advanced Database Mgt. System (Revised)

[Time: Three Hours] [Max Marks:80] Please check whether you have got the right question paper. Solve any two questions from each section. N.B Section A Q.1 A. Is a high – performance transaction system necessarily a real – time system? Why or why not? 10 B. Explain how a TP - Monitor manages memory and processor resources more effectively than a 10 typical operating system? Q.2 A. Explain various partitioning techniques used in I/O parallelism. Which partitioning technique is 10 suitable for following types of queries: Scanning entire relation, b) Point queries c) Range queries B. What do you mean by speed – up and scale – up? What is the importance of linearity in speed – up 10 and scale - up? Explain with diagrams and examples. Q.3 A. What is transparency feature of DDBM? Explain different types of distribution transparencies. 10 B. Differentiate between distributed data fragmentation techniques. 10 Section B A. What are the differences and similarities of EXTENDS and interface":" inheritance? Q.4 10 B. List the basic operations of the following built – in interfaces of the ODMG object Model: Object, 10 Collection, Iterator, Set, List. A. What are the differences between structured, semi – structured, and unstructured data? Q.5 10 B. What is the difference between data - centric and document - centric XML documents? 10 A. Explain the effect of Mobility on data management with example. 10 Q.6 B. Explain various multimedia database applications. 10