

Registration No:

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Total Number of Pages : 01

M.TECH

**M.TECH 2ND SEMESTER REGULAR EXAMINATIONS, MAY 2018
ADVANCED DATABASE AND ADVANCED OPERATING SYSTEM**

Branch: CS, Subject Code:MCSPC2020

Time: 3 Hours

Max Marks : 70

PART-A**(10 X 2=20 MARKS)****1. Answer the following questions.**

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| a) List out limitation of concurrency control? | [CO-3] |
| b) Highlight the challenges of distribution attempt to solve? | [CO-1] |
| c) Differentiate between database security and database integrity. | [CO-4] |
| d) Explain demand paging? | [CO-4] |
| e) State what is kernel? | [CO-1] |
| f) Mention about asymmetric clustering? | [CO-3] |
| g) Enumerate the different RAID levels. | [CO-4] |
| h) State factors determine whether a detection-algorithm must be utilized in a deadlock avoidance system? | [CO-3] |
| i) State the main difference between logical from physical address space. | [CO-2] |
| j) Illustrate cascading rollback. | [CO-3] |

PART-B**(5 X 10=50 MARKS)****Answer any five questions from the following.**

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| 2.a) Discuss briefly about serializability theory. | [CO-3] [5] |
| b) Explain timestamp based concurrency control algorithms. | [CO-3] [5] |
| 3. a) Explain public key cryptography in detail. | [CO-4] [5] |
| b) Describe the mechanisms for building distributed file systems. | [CO-1] [5] |
| 4. a) Describe the reason behind using an ODBMS? | [CO-3] [5] |
| b) What is the significance of parallel processing? | [CO-2] [5] |
| 5. a) What do you mean by I/O parallelism? What are various partitioning techniques explain in detail. | [CO-2] [5] |
| b) Explain the architecture of multimedia database management system. | [CO-4] [5] |
| 6. a) What do you mean by structured semi structured and unstructured data. | [CO-2] [5] |
| b) Explain in detail the parallel database architecture with neat diagram. | [CO-3] [5] |
| 7. a) Briefly explain access control list method with its implementation. | [CO-4] [5] |
| b) Discuss the four components of a load distributing algorithm. | [CO-3] [5] |
| 8. Write short notes on | [CO-2] [5] |
| a) Kernel-level threads | |
| b) User-level threads | |

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