



SB-4313
MCA (Sem. II) Examination
March / April – 2011
Paper-203 : R.D.B.M.S.

Time : 3 Hours]

[Total Marks : 70

Instructions :

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<p>नीचे दशांश देव निशान्नीवाणी विगतो उत्तरवडी पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : MCA (Sem. 2)</p> <p>Name of the Subject : P-203 : RDBMS</p> <p>Subject Code No. : 4 3 1 3 Section No. (1, 2,.....): Nil</p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div>
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- 1 Answer the following : (any seven) 14
- (i) What is MTTF ?
 - (ii) Define Dense and sparse indices ?
 - (iii) What is the difference between primary indices and secondary indices ?
 - (iv) What is the difference between coarse granularity parallelism and fine granularity parallelism ?
 - (v) Define Deadlock and Starvation.
 - (vi) What is Thomas Write Rule ?
 - (vii) What is checkpoint ?
 - (viii) What is WAL (Write ahead logging) ?
 - (ix) What is Recoverable schedules ?
 - (x) What is cache coherency problem ?
- 2 Attempt any two : 14
- (a) Write short note on RAID.
 - (b) Explain how records in B+ Tree index file are inserted and deleted using example.
 - (c) Define Speedup and Scaleup for parallel systems. Also list and explain different types of scaleup.

- 3** Attempt any two : **14**
- (a) Explain redo and undo operation with respect to immediate database modification approach of log based recovery scheme.
 - (b) Write short note on Grant and Revoke.
 - (c) Explain Nested loop join. How block access can be reduced in case of Block nested loop join ?
- 4** Attempt any two : **14**
- (a) What is the difference between serial schedules and serializable schedule ? Explain view serializability with proper example.
 - (b) Explain Two Phase locking protocol.
 - (c) Explain basic steps in query processing.
- 5** Answer the following : **14**
- (a) List and explain different partitioning techniques of I/O parallelism. State in which types of queries each partitioning technique is suitable. **7**
 - (b) Explain data transparency of distributed database. **4**
 - (c) What is data fragmentation ? **3**
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