

**M.Sc. 2nd Semester Examination, 2012**

**COMPUTER SCIENCE**

**PAPER—COS-201**

*Full Marks : 50*

*Time : 2 hours*

**Answer any four questions**

*The figures in the right-hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

*Illustrate the answers wherever necessary*

**MODULE – I**

**( Advanced Distributed DBMS )**

**[ Marks : 25 ]**

1. (a) **What is concurrent execution ? Explain with an example.**

1 + 1  $\frac{1}{2}$

( Turn Over )

- (b) Explain UNDO and REDO.  $1\frac{1}{2}$
- (c) What is Data Redundancy? 1
2. (a) What is serializable schedule? Explain it by an example.  $1+2\frac{1}{2}$
- (b) What is Read ( ) and write ( ) operation.  $1\frac{1}{2}$
3. What are RAID levels? How does elevator algorithm works for optimization? Why Buffer replacement policies are needed?  $1+2+2$
4. What is the difference between parallel and distributed DBMS? What is lock de-escalation, and under what conditions is it required?  $2+1+2$
5. How does two phase commit protocol works? Explain briefly. What purpose can be fullfilled through data dictionary?  $3+2$
6. How does a system recover if there is a failure of a coordinator? Give the working specification of quorum consensus protocol.  $3+2$
7. (a) Explain the different states of transaction. 3

- (b) Draw the flow chart of the different steps of query optimization. 2

[ Internal Assessment : 05 Marks ]

MODULE – II

( PHP, MYSQL & ASP.NET, ADO.NET )

[ Marks : 25 ]

1. (a) What is CSS ? How many types of CSS. Explain.  
(b) Explain the method of creating COOKIE in PHP. 3 + 2
2. (a) Create a form for uploading an image.  
(b) How can we extract “sagar” from “Vidyasagar”.  
(c) How do I add a scrolling test to my webpage. Give syntax. 2 + 1 + 2
3. (a) Write the difference between ADO and ADO.Net.  
(b) Draw the ADO.Net architecture model. 3 + 2
4. (a) What is server side programming ?  
(b) What is data adapter and data reader ?

$$\left[ 2 + \left( 1\frac{1}{2} + 1\frac{1}{2} \right) \right]$$

5. (a) What is the functionality of the function strstr and stristr? 1
- (b) What are the different functions in sorting an array? 2
- (c) What are the differences between require and include, include once? 2
6. (a) How do I make a picture as a background on my web page? 1
- (b) What is difference between mysql-fetch-array (), mysql-fetch row (), and mysql-fetch assoc (). 2
- (c) What is the difference between echo and print? Explain with example. 2

[ *Internal Assessment : 05* ]

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