CHRIST UNIVERSITY,BENGALURU - 560029

End Semester Examination October - 2015
Bachelor of Science - CME / CMS III SEMESTER

Code: CSC331   Max.Marks: 100

Subject: DATABASE MANAGEMENT SYSTEM AND SOFTWARE
ENGINEERING   Duration: 3Hrs

SECTION A

Answer All Questions   10X2=20

1   Give any two responsibilities of DBA.
2   Define attribute value sets.
3   Define third normal form.
4   List the data types available for attributes in SQL.
5   Define serializability.
6   Write the definition of software.
7   What is a Process?
8   List three problems that are encountered in elicitation phase.
9   What are the three characteristics for evaluating a good design?
10   What is a test case?

SECTION B

Answer any eight questions   8X5=40

11   Differentiate between logical data independence and physical data independence.
12   What is meant by recursive relationship type?
13   Discuss the purpose of Boyce-Codd normal form.
14   Differentiate between HAVING and WHERE clause.
15   What are the rules followed when shared/exclusive locking scheme is used?
16   Draw and explain hardware and software failure curves.
17   What is waterfall model of Software Development? Explain with a diagram.
18   Explain 'working towards collaboration' with respect to understanding requirements.
19   Briefly explain functional independence, cohesion and coupling.
20   Briefly explain unit testing and integration testing.

SECTION C

Answer any two questions.   2X10=20

21   Consider Movie database with following requirements

- **Each movie is identified by title and year of release. It has length in minutes, has a production company and is classified under one or more genres (horror,action,drama etc).Each movie has a director and one or more actors.**
- **Each actor is identified by name and date of birth. Each actor has a role in a movie.**
- **Production companies are identified by name and address .Each Production Company produces one or more movies.**

Draw ER diagram for the movie database.

22   Explain the first and second normal form with an example.
23   Consider the following tables:

WORKS(Pname,Cname, Salary)

LIVES(Pname,Street,City)

LOCATED_IN(Cname,City)

MANAGER(Pname,Mgrname)

Where Pname=Person name, Cname=Company name, Mgrname= Manager name

Write SQL statements for following

- **List the names of the people who work for TCS along with cities they live in.**
- **Find names of the people who do not work for Wipro.**
- **Find names of the people who work in Infosys and have salary greater than 80,000**

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SECTION D

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Answer any two questions.   **2X10=20**

24   You are asked to develop a huge project for banking system. Which development model would you like to choose for the development of the same? Justify your answer.

25   Explain normal, expected and exciting requirements with respect to quality function deployment.

26   Explain Procedural Design Method for designing software.