CHRIST UNIVERSITY, BENGALURU - 560029

End Semester Examination October - 2017 Bachelor of Science-CME/CMS III SEMESTER

Code: CSC331 Max.Marks: 100

Subject: DATABASE MANAGEMENT SYSTEMS AND SOFTWARE

ENGINEERING

Duration: 3Hrs

SECTION A

Answer All Questions 10X2=20

- 1 Mention any two actors on the scene of DBMS.
- 2 Differentiate between weak entity set and strong entity set.
- **3** What is called generalization in DBMS?
- 4 What is the use of a CREATE command?
- 5 What are the ACID properties of transactions?
- 6 The legacy software systems written more than ten years ago are still being used today. Why?
- 7 What is a process?
- **8** What is UML?
- 9 List five software quality attributes defined by Hewlett-Packard
- 10 What is validation in software engineering?

SECTION B

Answer any eight questions

8X5=40

- 11 Describe three schema architecture of a database with a neat diagram.
- 12 Explain the concept of a weak entity with help of an example.
- 13 What is the minimal normal form that a relation should satisfy? Justify.
- Write a short note on concept of views.
- 15 Describe the types of locks used in concurrency control.
- 16 Explain any five software application domains with examples.
- 17 What is waterfall model of Software Development? Explain with a diagram.
- 18 Mention some of the problems that occur when requirements must be elicited from three or four customers.
- 19 Explain how information hiding helps in software design.
- **20** Explain condition testing with suitable examples.

SECTION C

Answer any two questions.

2X10=20

- 21 Explain the various symbols used for drawing an ER diagram.
- 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

SECTION D

Answer any two questions.

2X10=20

24 Explain prototype model with a neat diagram and give its advantages and disadvantages.

- 25 Explain scenario, class and behavioral based elements of the requirement model.
- 26 Explain software quality guidelines and attributes in software design process.