BLDEA's Vachana Pitamaha Dr. P.G. Halakatti College of Engg. & Tech., Bijapur-586103

Department of Computer Science & Engg.

INTERNAL ASSESSMENT TEST-I

Semester : V	Max. Test Marks : 20
Subject Code : 15CS53	Date : 17/09/2017
Subject Title : DBMS	Time : 3-15 PM AM 4-15 PM
Staff Name : Laxmi S. Shabadi	Duration of Test : 1 Hr

Note: Attempt any 1 full question from each part. All questions carry equal marks.

Part A

		CO's	BL
1. a. Explain the different actors on the scene and workers behind the scene.	6 Marks	1	2
b. List the advantages of using the DBMS approach and explain any 8in brief.	9 Marks	1	2
2. a. Draw and explain the component modules of a DBMS and their interactions.	10 Marks	1,2	2
b. Draw the neat diagrams for logical three-tier client/server architecture and explain.	5 Marks	1,2	2

Part B

3. a. Draw the ER diagram for the Bank database.	5 Marks	1,2	6
b.Explain the different classifications of attributes with examples.	6 Marks	1,2	2
c. Explain weak entity with example.	4 Marks	1,2	2
4. a. Discuss different data types in SQL with examples.	6 Marks	3	2
b. Consider the schema for Company Database:	6 Marks	3	3

EMPLOYEE(SSN, Name, Address, Sex, Salary, SuperSSN, DNo)
DEPARTMENT(DNo, DName, MgrSSN, MgrStartDate)
DLOCATION(DNo,DLoc)
PROJECT(PNo, PName, PLocation, DNo)
WORKS_ON(SSN, PNo, Hours)

Write SQL queries to

1. Create above tables
2. Insert 2 tuples.
3. select name, salary of EMPLOYEE where SSN>6 and salary<10000. 3 2

c. Discuss arithmetic operators with examples in SQL. 3 Marks

B.L.D.E.A's
V.P. Dr. P. G. H. College of Engineering & Technology, Bijapur.
Internal Assessment Test-
SCHEME OF EVALVATION

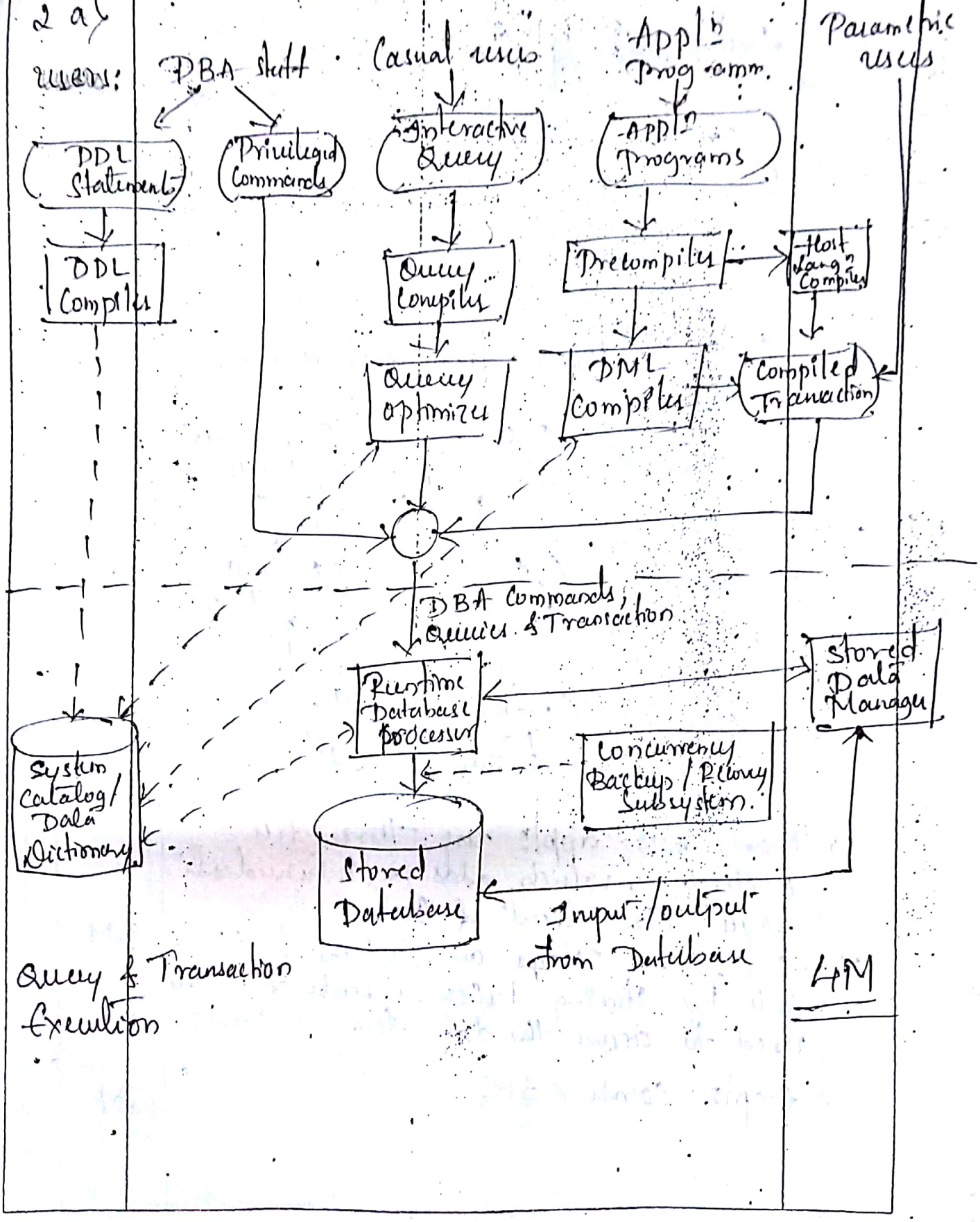
ubject: DBMS
ub Code: 15CS33
emester: 5th
Staff: Mr. Vasim. Shabadi
Duratio n: 01 Hour
Max.Marks: 20
Date: 17/09/2017

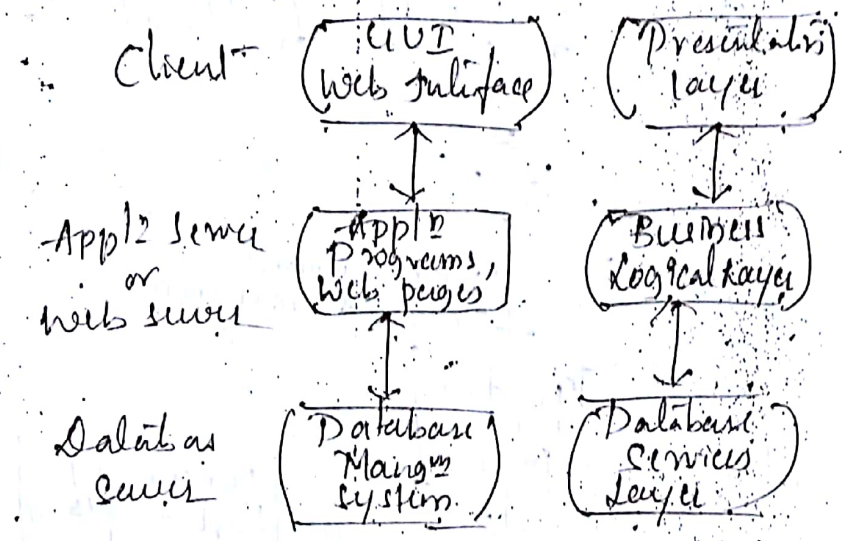
Question No's	Expected Answers	Marks Allotted
	PART - A	
1 a)	Different actors on the scene ↳ DBA — responsible for authorizing access to the DB, Co-ordinating & monitoring its use, & acquiring s/w & h/w resources as needed.	1
	↳ Database Designer — responsible for identifying the data to be stored on the DB & for choosing appropriate structures to represent & store this data.	1
	↳ End users ↳ Casual users ↳ Naive or parametric end users ↳ Sophisticated users ↳ Standalone users:	1
	→ Workers Behind the Scene ↳ DBMS system designers & implementers — Design & implement the DBMS modules & interfaces as sw package	1

Question No's	Expected Answers	Marks Allotted
	↳ Tool developers → the s/w packages that facilitate database modeling & design, database system design & improved performance.	1M
	↳ operators & maintenance personnel — are responsible for the actual running & maintenance of the h/w & s/w environment for the database system.	1M
		6M.
1 b)	Advantages of using DBMS ↳ Controlling Redundancy ↳ Restricting unauthorized Access ↳ Providing persistent storage for Program objects. ↳ Providing Storage structures for efficient Query processing ↳ Providing Backup & Recovery ↳ Providing Multiple user Interface ↳ Representing Complex Relationship among Data ↳ Enforcing Integrity Constraints ↳ Permitting Inferencing & Actions using Rules Note: Each carrying one Marks	9M

Question No's	Expected Answers	Marks Allotted

2 a)

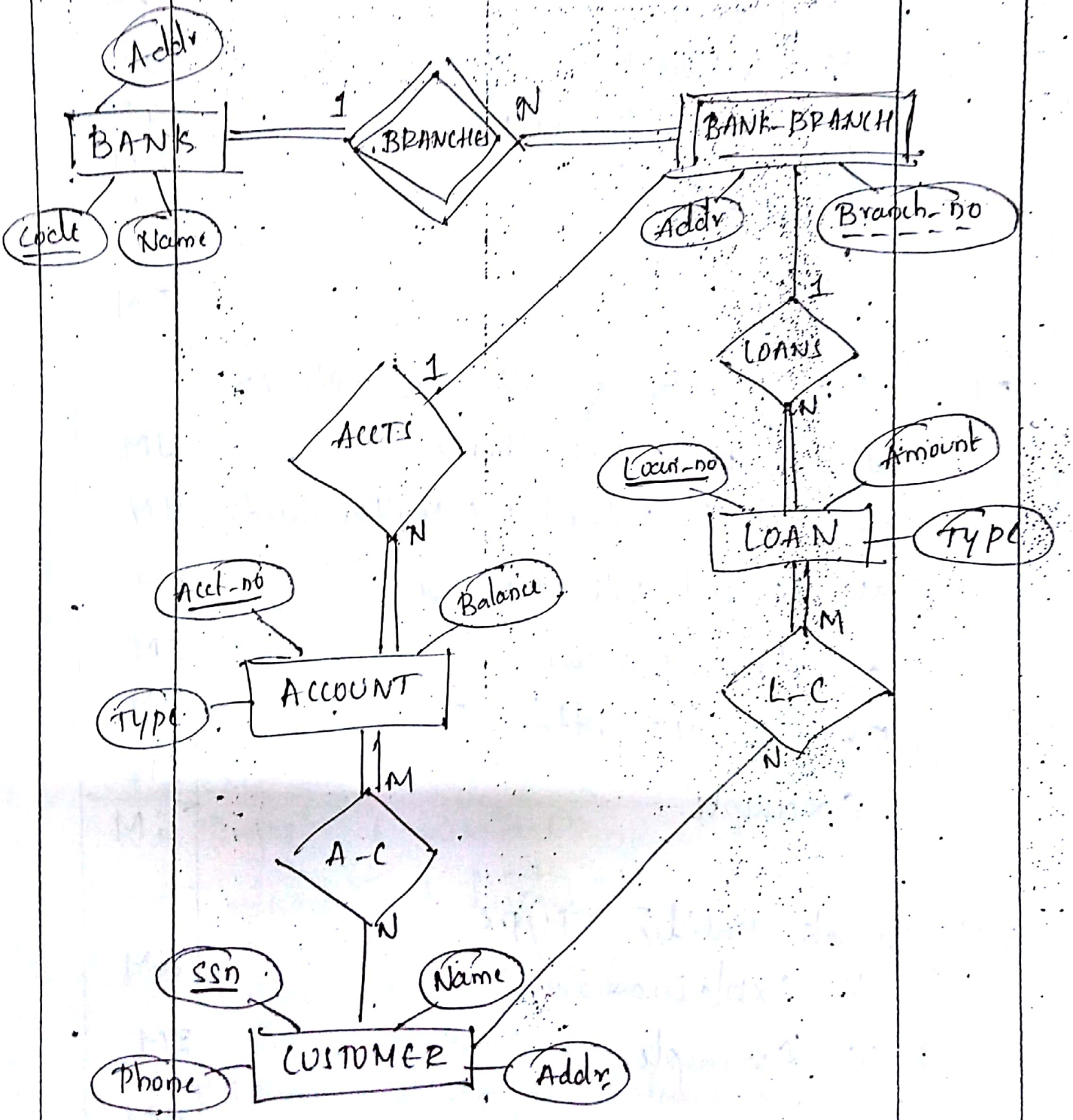


Question No's	Expected Answers	Marks Allotted
	Explanation of above diagram with all the Component Module Names 6M	6M
		10M
2 b)	Logical three tier Architecture.  	2M
	↳ Many web appln use three-tier architecture, which adds an intermediate layer b/w client & server. ↳ The server plays an intermediate role by storing business rules that are used to access the data from DB server. Explⁿ carries 3M.	3M 5M

Question No's	Expected Answers	Marks Allotted

PART - B

3 a) ER Diagram for Bank Database



Question No's	Expected Answers	Marks Allotted
	Each entity with attributes & relationship Comes 1M ↳ ~~BANK~~ ↳ BANKs ↳ CUSTOMER ↳ BANK_BRANCH ↳ ACCOUNT ↳ LOAN	1M 1M 1M 1M 1M 5M
3b)	Classification of attributes with ex. 1) Composite v/s Simple 2) Single-valued v/s Multivalued 3) Stored v/s Derived 4) Null values 5) Complex Attributes Example	1M 1M 1M 1M 1M 6M
3c)	Weak Entity Type ↳ Explanation ↳ Example	2M 2M 4M

Question No's	Expected Answers	Marks Allotted
4 a)	Different data types in SQL. ↳ The basic data types available for attributes include numeric, character string, bit string, Boolean data & time. Expln of each of these carries 1M. each. ↳ Numeric ↳ Character-string ↳ Bit-String ↳ Boolean ↳ Date & time ↳ Timestamp	1 1 1 1 1 1 6M
4 b)	i) Create above tables. → Creating Employee, Dept, Dloc, Project & works-on → Insert 2 tuples → Select name, salary from Employee where SSN > 6 AND salary < 10000	2M 2M 2M 6M

Question No's	Expected Answers	Marks Allotted
21 c)	Airthmetic operators with ex in SQL: → The 4 airthmetic operator are + , − , * , /	1M
	Ex: Select Fname, Lname, 1.1 * Salary As Increased.sal From Employee, works_on, project where Ssn = Essn AND Pno = Pnumber AND Pname = 'productx';	2M
		3M