



Maratha Vidya Prasarak Samaj's

Rajarshi Shahu Maharaj Polytechnic, Nashik

Udoji Maratha Boarding Campus, Near Pumping Station, Gangapur Road, Nashik-13.

RSM POLY

Affiliated to MSBTE Mumbai, Approved by AICTE New Delhi, DTE Mumbai & Govt. of Maharashtra, Mumbai.

*Subject: DATABASE
MANAGEMENT SYSTEM
(22319)*



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SYLLABUS

Chapter No.	Name of chapter	Marks With Option
1	Database System Concept	18
2	Relational Data Model	26
3	Interactive SQL and advanced SQL	20
4	PL/SQL programing	24
5	Database Security and Transaction Processing	14
Total Marks		102

BOARD THEORY PAPER PATTERN FOR DMS (22319)

Q.1		Attempt any FIVE	5*2=10
	a)	Database System Concept	
	b)	Database System Concept	
	c)	Relational Data Model	
	d)	Relational Data Model	
	e)	Relational Data Model	
	f)	Interactive SQL and advanced SQL	
	g)	PL/SQL programing	
Q.2		Attempt any THREE	3*4=12
	a)	Database System Concept	
	b)	Relational Data Model	
	c)	Interactive SQL and advanced SQL	
	d)	PL/SQL programing	
Q.3		Attempt any THREE	3*4=12
	a)	Relational Data Model	
	b)	Interactive SQL and advanced SQL	
	c)	PL/SQL programing	
	d)	Database Security and Transaction Processing	
Q.4		Attempt any THREE	3*4=12
	a)	Database System Concept	
	b)	Interactive SQL and advanced SQL	
	c)	PL/SQL programing	
	d)	PL/SQL programing	
	e)	Database Security and Transaction Processing	



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Q.5		Attempt any TWO	2*6=12
	a)	Database System Concept	
	b)	Relational Data Model	
	c)	Interactive SQL and advanced SQL	
Q.6		Attempt any TWO	2*6=12
	a)	Relational Data Model	
	b)	PL/SQL programing	
	c)	Database Security and Transaction Processing	



CLASS TEST - I

PAPER PATTERN

COURSE: Database Management System (22319)

PROGRAMME: Computer Technology

Syllabus:

Unit No.	Name of the Unit	Course Outcome (CO)
1	Database System Concept	CO-319.01
2	Relational Data Model	CO-319.02
3	Interactive SQL and advanced SQL	CO-337.03

Q.1	Attempt any FOUR	4*2=8Marks	Course Outcome (CO)
a)	Database System Concept		CO-319.01
b)	Relational Data Model		CO-319.02
c)	Database System Concept		CO-319.01
d)	Interactive SQL and advanced SQL		CO-319.03
e)	Interactive SQL and advanced SQL		CO-319.03
f)	Relational Data Model		CO-319.02
g)	Relational Data Model		CO-319.02
Q.2	Attempt any THREE	3*4= 12Marks	
a)	Database System Concept		CO-319.01
b)	Database System Concept		CO-319.01
c)	Relational Data Model		CO-319.02
d)	Interactive SQL and advanced SQL		CO-319.03
e)	Relational Data Model		CO-319.02
f)	Interactive SQL and advanced SQL		CO-319.03
g)	Relational Data Model		CO-319.02



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CLASS TEST - II

PAPER PATTERN

COURSE: Database Management System (22319)

PROGRAMME: Computer Technology

Syllabus:

Unit No.	Name of the Unit	Course Outcome (CO)
4	PL/SQL programing	CO-319.04
5	Database Security and Transaction Processing	CO-319.05

Q.1	Attempt any FOUR	4*2= 8Marks	Course Outcome (CO)
a)	PL/SQL programing		CO-319.04
b)	Database Security and Transaction Processing		CO-319.05
c)	PL/SQL programing		CO-319.04
d)	Database Security and Transaction Processing		CO-319.05
e)	PL/SQL programing		CO-319.04
Q.2	Attempt any THREE	3*4= 12Marks	
a)	PL/SQL programing		CO-319.04
b)	Database Security and Transaction Processing		CO-319.05
c)	PL/SQL programing		CO-319.04
d)	Database Security and Transaction Processing		CO-319.05
e)	PL/SQL programing		CO-319.04



COURSE OUTCOME (CO)

COURSE: Database Management System (22319)

PROGRAMME: Computer Technology

CO.NO	Course Outcome
CO-319.1	Design Normalized database on given data.
CO-319.2	Create and manage database using SQL command.
CO-319.3	Write PL/SQL code for given database.
CO-319.4	Apply triggers on database also create procedure and function according to condition.
CO-319.5	Apply security and confidentiality on given database.

1) Database System Concept

Position in Question Paper

Total Marks: 12

Q.1 a) 2-Marks.

Q.2 a) 4-Marks.

Q.5 a) 6-Marks.

Descriptive Question

1] Define the following terms:

a) Data b) Database c) DBMS

2] List application of DBMS.

3] State four advantages of DBMS over file processing system.

4] Describe data abstraction with neat label diagram.

5] Draw the overall structure of DBMS.

6] Explain E-R diagram entity and weak entity set.

7] Draw ER diagram for library management system.

MCO Question:

1. What is a foreign key?

a) A foreign key is a primary key of a relation which is an attribute in another relation

b) A foreign key is a superkey of a relation which is an attribute in more than one other relation

c) A foreign key is an attribute of a relation that is a primary key of another relation

d) A foreign key is the primary key of a relation that does not occur anywhere else in the schema

2. A relational database consists of a collection of

a) **Tables**

c) Records

b) Fields

d) Keys

3. A _____ in a table represents a relationship among a set of values.

a) **Column**

c) Row

b) Key

d) Entry



4. Student(ID, name, dept name, tot_cred) In this query which attributes form the primary key?
- a) Name
b) Dept
c) Tot_cred
d) ID
5. The _____ operation performs a set union of two “similarly structured” tables
- a) **Union**
b) Join
c) Product
d) Intersect
6. To remove a relation from an SQL database, we use the _____ command.
- a) Delete
b) Purge
c) Remove
d) Drop table
7. SELECT name _____ instructor name, course id FROM instructor, teaches WHERE instructor.ID= teaches.ID; Which keyword must be used here to rename the field name?
- a) From
b) Rename
c) **As**
d) Join
8. SELECT * FROM employee WHERE dept_name="Comp Sci";
In the SQL given above there is an error. Identify the error.
- a) Dept_name
b) Employee
c) **“Comp Sci”**
d) From
9. By default, the order by clause lists items in _____ order.
- a) Descending
b) Any
c) Same
d) Ascending
10. In SQL the spaces at the end of the string are removed by _____ function.
- a) Upper
b) String
c) **Trim**
d) Lower
11. Using the _____ clause retains only one copy of identical tuples
- a) **distinct**
b) is not null
c) no repeat
d) from
12. E-R model uses this symbol to represent weak entity set ?
- a) Dotted rectangle.
b) Diamond
c) **Doubly outlined rectangle**
d) None of these
13. Key to represent relationship between tables is called
- a) Primary key
b) Secondary Key
c) **Foreign Key**
d) None of these
14. DBMS helps achieve _____.
- a) Data independence
b) Neither (A) nor (B)
c) Centralized control of data
d) both (A) and (B)



15. DBMS Stand for _____.
- a) Data base marginal system
 - b) Directory Based Memory Standard
 - c) **Data Base Management System**
 - d) Dual Bus Mask Storage
16. The language which has recently become the defacto standard for interfacing application programs with relational database system is _____.
- a) Oracle
 - b) **SQL**
 - c) Dbase
 - d) 4GL
17. In an E-R diagram attributes are represented by _____.
- a) rectangle
 - b) square
 - c) **ellipse**
 - d) triangle
18. The statement in SQL which allows changing the definition of a table is
- a) **Alter**
 - b) Update
 - c) Create
 - d) select
19. The full form of DDL is
- a) Dynamic Data Language
 - b) Detailed Data Language
 - c) **Data Definition Language**
 - d) Data Derivation Language
20. Which of the following is an advantage of view?
- a) Data security
 - b) Derived columns
 - c) Hiding of complex queries
 - d) **All of the above**
21. Which clause is used to remove a foreign key constraint?
- a) REMOVE
 - b) DELETE
 - c) **DROP**
 - d) EXCLUDE
22. The property of InnoDB that enforces foreign key relationships stay intact is called ____.
- a) atomicity
 - b) durability
 - c) consistency
 - d) **referential integrity**
23. Which keyword is used to specify the foreign key after the table is created?
- a) SETUP
 - b) SET
 - c) **ALTER TABLE**
 - d) SPECIFY
24. Foreign keys cannot handle deletes and updates.
- a) True
 - b) **False**
25. Which key declares that an index in one table is related to that in another?
- a) primary
 - b) Secondary
 - c) **foreign**
 - d) cross
26. The term _____ is used to refer to a row.
- a) Attribute
 - b) **Tuple**
 - c) Field
 - d) Instance



27. For each attribute of a relation, there is a set of permitted values, called the _____ of that attribute.
- a) **Domain**
 - b) Relation
 - c) Set
 - d) Schema
28. Database _____ which is the logical design of the database, and the database _____ which is a snapshot of the data in the database at a given instant in time.
- a) Instance, Schema
 - b) Relation, Schema
 - c) Relation, Domain
 - d) **Schema, Instance**
29. A domain is atomic if elements of the domain are considered to be _____ units.
- a) Different
 - b) **Indivisible**
 - c) Constant
 - d) Divisible
30. The tuples of the relations can be of _____ order.
- a) **Any**
 - b) Same
 - c) Sorted
 - d) Constant
31. Using which language can a user request information from a database?
- a) **Query**
 - b) Relational
 - c) Structural
 - d) Compiler
32. Which one of the following is a procedural language?
- a) Domain relational calculus
 - b) Tuple relational calculus
 - c) **Relational algebra**
 - d) Query language
33. The _____ operation allows the combining of two relations by merging pairs of tuples, one from each relation, into a single tuple.
- a) Select
 - b) **Join**
 - c) Union
 - d) Intersection
34. **CREATE TABLE** employee (name **VARCHAR**, id **INTEGER**) What type of statement is this?
- a) DML
 - b) **DDL**
 - c) View
 - d) Integrity constraint
35. Foreign keys can handle deletes and updates.
- a) **True**
 - b) False
36. Using which language can a user request information from a database?
- a) **Query**
 - b) Relational
 - c) Structural
 - d) Compiler

2) Relational Data Model

Position in Question Paper

Total Marks: 18

Q.1 b) 2-Marks.

Q.1 c) 2-Marks.

Q.2 b) 4-Marks.

Q.4 c) 4-Marks.

Q.5 a) 6-Marks.

Descriptive Question

1] Describe following key:

a) Primary key b) Foreign key

2] List DCL commands with its use.

3] Give syntax and example of CREATE command.

4] Explain any four integrity constraints.

5] Explain the set operators of constraints.

6] Explain pattern matching operator 'LIKE'.

7] Explain Range Searching operator 'BETWEEN'.

8] Explain pattern matching operator 'LIKE'.

9] List and explain DDL commands with its use.

MCQ Question:

1. The statement in SQL which allows changing the definition of a table is

- a) Alter c) Create
b) Update d) select

2. _____ operator is used for appending two strings.

- a) & c) ||
b) % d) _

3. _____ clause is an additional filter that is applied to the result.

- a) Select c) **Having**
b) Group-by d) Order by



4. Which of the following is the syntax for views where v is view name?
- a) Create view v as “query name”;
b) Create “query expression” as view;
c) **Create view v as “query expression”;**
d) Create view “query expression”;
5. Which of the following creates a virtual relation for storing the query?
- a) Function
b) **View**
c) Procedure
d) None of the mentioned
6. Updating the value of the view
- a) **Will affect the relation from which it is defined**
b) Will not change the view definition
c) Will not affect the relation from which it is defined
d) Cannot determine
7. Which of the following makes the transaction permanent in the database?
- a) View
b) **Commit**
c) Rollback
d) Flashback
8. In order to undo the work of transaction after last commit which one should be used?
- a) View
b) Commit
c) **Rollback**
d) Flashback
9. TRANSACTION.....
Commit;
ROLLBACK;
What does Rollback do?
- a) Undoes the transactions before commit
b) Clears all transactions
c) Redoes the transactions before commit
d) **No action**
10. In order to maintain the consistency during transactions, database provides
- a) Commit
b) **Atomicity**
c) Flashback
d) Retain
11. To include integrity constraint in an existing relation use:
- a) Create table
b) Modify table
c) **Alter table**
d) Drop table
12. Which of the following is not an integrity constraint?
- a) Not null
b) **Positive**
c) Unique
d) Check ‘predicate’
13. Foreign key is the one in which the _____ of one relation is referenced in another relation.
- a) Foreign key
b) **Primary key**
c) References
d) Check constraint



14. The database administrator who authorizes all the new users, modifies the database and takes grants privilege is
- a) Super user
 - b) Administrator
 - c) Operator of operating system
 - d) All of the mentioned**
15. A Delete command operates on _____ relation.
- a) One**
 - b) Two
 - c) Several
 - d) Null
16. Which one of the following deletes all the entries but keeps the structure of the relation.
- a) Delete from r where P;
 - b) Delete from instructor where dept name= 'Finance';
 - c) Delete from instructor where salary between 13000 and 15000;
 - d) Delete from instructor;**
17. Which of the following is not a part of PL/SQL
- a) Triggers
 - b) Packages
 - c) Functions
 - d) None of the mentioned**
18. Updates that violate _____ are disallowed.
- a) Integrity constraints**
 - b) Transaction control
 - c) Authorization
 - d) DDL constraints
19. INSERT INTO instructor VALUES (10211, 'Smith', 'Biology', 66000);
What type of statement is this?
- a) Query
 - b) DML**
 - c) Relational
 - d) DDL
20. Using which language can a user request information from a database?
- a) Query**
 - b) Relational
 - c) Structural
 - d) Compiler
21. The result which operation contains all pairs of tuples from the two relations, regardless of whether their attribute values match.
- a) Join
 - b) Cartesian product**
 - c) Intersection
 - d) Set difference
22. Which one of the following is used to define the structure of the relation, deleting relations and relating schemas?
- a) DML (Data Manipulation Language)
 - b) DDL (Data Definition Language)**
 - c) Query
 - d) Relational Schema
23. Which one of the following provides the ability to query information from the database and to insert tuples into, delete tuples from, and modify tuples in the database?
- a) DML (Data Manipulation Lang.)**
 - b) DDL (Data Definition Language)



- c) Query
d) Relational Schema
24. `SELECT * FROM employee` ---- What type of statement is this?
a) DML
b) DDL
c) **DQL**
d) Integrity constraint
25. `DELETE FROM r;` //r – relation
This command performs which of the following action?
a) Remove relation
b) **Clear relation entries**
c) Delete fields
d) Delete rows
26. Updates that violate _____ are disallowed.
a) **Integrity constraints**
b) Transaction control
c) Authorization
d) DDL constraints
27. Which of the following is/are the DDL statements?
a) Create
b) Drop
c) Alter
d) **All of the Mentioned**
28. In SQL, which command(s) is(are) used to change a table's storage characteristics?
a) **ALTER TABLE**
b) MODIFY TABLE
c) CHANGE TABLE
d) All of the Mentioned
29. _____ clause is an additional filter that is applied to the result.
a) Select
b) Group-by
c) **Having**
d) Order by
30. _____ defines rules regarding the values allowed in columns and is the standard mechanism for enforcing database integrity.
a) Column
b) **Constraint**
c) Index
d) Trigger
31. SQL has how many main commands for DDL:
a) 1
b) 2
c) **3**
d) 4
32. Which command defines its columns, integrity constraint in create table:
a) **Create command**
b) Drop table command
c) Alter table command
d) All of the Mentioned
33. Which command is used for removing a table and all its data from the database:
a) Create command
b) **Drop table command**
c) Alter table command
d) All of the Mentioned
34. 10. Which command allows the removal of all rows from a table but flushes a table more efficiently since no rollback information is retained:
a) **TRUNCATE command**
b) Create command

- c) Drop table command
d) Alter table command
35. Which is the subset of SQL commands used to manipulate Database structures, including tables?
a) **Data Definition Language(DDL)**
b) Data Manipulation Language(DML)
c) DML and DDL
d) None of the Mentioned
36. The language used application programs to request data from the DBMS is referred to as _____
a) **DML**
b) DDL
c) Query language
d) All of the Mentioned
37. In SQL, which of the following is not a data Manipulation Language Commands?
a) Delete
b) **Truncate**
c) Update
d) Create
38. Which of the following is not a type of SQL statement?
a) Data Manipulation Language (DML)
b) Data Definition Language (DDL)
c) Data Control Language (DCL)
d) **Data Communication Lang. (DCL)**
39. Which of the following is not included in DML (Data Manipulation Language)
a) INSERT
b) UPDATE
c) DELETE
d) **CREATE**
40. TRUNCATE statement in SQL is a –
a) DML statement
b) **DDL statement**
c) DCL statement
d) TCL statement
41. In SQL, which command is used to add new rows to a table?
a) Alter Table
b) Add row
c) **Insert**
d) Append
42. Stack is also called _____
a) First In First Out (LIFO)
b) Last In First Out (FIFO)
c) **First In Last Out (FILO)**
d) First Come First Served (FCFS)
43. A table that displays data redundancies yields _____ anomalies.
a) Update
b) Insertion
c) **Deletion**
d) All of the Mentioned
44. Which of the following is not a class of constraint in SQL Server?
a) NOT NULL
b) CHECK
c) **NULL**
d) UNIQUE
45. Which of the following constraint does not enforce uniqueness?
a) UNIQUE
b) Primary key
c) **Foreign key**
d) None of the mentioned



46. Constraints can be applied on _____
- a) Column
b) Table
c) Field
d) **All of the mentioned**
47. Which operator is used to compare a value to a specified list of values?
- a) BETWEEN
b) ANY
c) **IN**
d) ALL
48. Which of the following are TCL commands?
- a) **COMMIT and ROLLBACK**
b) UPDATE and TRUNCATE
c) SELECT and INSERT
d) GRANT and REVOKE
49. How many Primary keys can have in a table?
- a) **Only 1**
b) Only 2
c) Depends on no of Columns
d) Depends on DBA
50. Which SQL keyword is used to retrieve a maximum value?
- a) MOST
b) TOP
c) **MAX**
d) UPPER
51. Which SQL function is used to count the number of rows in a SQL query?
- a) COUNT()
b) NUMBER()
c) SUM()
d) **COUNT(*)**
52. Which SQL statement is used to return only different values?
- a) SELECT DIFFERENT
b) SELECT UNIQUE
c) **SELECT DISTINCT**
d) SELECT ALL
53. Which SQL keyword is used to sort the result-set?
- a) **ORDER BY**
b) SORT
c) ORDER
d) SORT BY
54. The UNION SQL clause can be used with _____
- a) **SELECT clause only**
b) DELETE and UPDATE clauses
c) UPDATE clause only
d) All of the mentioned



- a) Upper
b) String
- c) **Trim**
d) Lower
6. Using the _____ clause retains only one copy of identical tuples
- a) **distinct**
b) is not null
c) no repeat
d) from
7. The _____ operation performs a set union of two “similarly structured” tables
- a) **Union**
b) Join
c) Product
d) Intersect
8. _____ function returns current date and time.
- a) SET DATEFIRST
b) SYSDATETIME
c) Cert_ID
d) **GETDATE**
9. Which of the following function checks whether the expression is a valid date or not?
- a) **ISDATE**
b) ISDAY
c) ISVALID
d) ISYEAR
10. Which of the following is not a mathematical function?
- a) ATN2
b) POWER
c) PI
d) **CEIL**
11. Built in Functions in SQL Server is categorized into how many categories?
- a) **4**
b) 5
c) 6
d) 7
12. Which SQL function is used to count the number of rows in a SQL query?
- a) COUNT()
b) NUMBER()
c) SUM()
d) **COUNT(*)**
13. Which SQL keyword is used to retrieve a maximum value?
- a) MOST
b) TOP
c) **MAX**
d) UPPER
14. A _____ is a query that retrieves rows from more than one table or view:
- a) Start
b) End
c) **Join**
d) All of the mentioned
15. A condition is referred to as _____
- a) Join in SQL
b) **Join condition**
c) Join in SQL & Condition
d) None of the mentioned
16. How many join types in join condition:
- a) 2
b) 3
c) 4
d) **5**
17. Which are the join types in join condition:



- a) Cross join
b) Natural join
- c) Join with USING clause
d) All of the mentioned
18. Which join refers to join records from the write table that have no matching key in the left table are include in the result set:
- a) Left outer join
b) Right outer join
c) Full outer join
d) Half outer join
19. Which operation are allowed in a join view:
- a) UPDATE
b) INSERT
c) DELETE
d) All of the mentioned
20. SQL Server has mainly how many types of views?
- a) one
b) two
c) three
d) four
21. Dynamic Management View is a type of _____
- a) **System Defined Views**
b) User Defined View
c) Simple View
d) Complex View
22. Syntax for creating views is _____
- a) **CREATE VIEW AS SELECT**
b) CREATE VIEW AS UPDATE
c) DROP VIEW AS SELECT
d) CREATE VIEW AS UPDATE
23. You can delete a view with _____ command.
- a) **DROP VIEW**
b) DELETE VIEW
c) REMOVE VIEW
d) TRUNCATE VIEW
24. _____ is stored only in the Master database.
- a) DB-scoped Dynamic Mgt. View
b) Complex View
c) Catalog View
d) None of the mentioned
25. Aggregate functions are functions that take a _____ as input and return a single value.
- a) **Collection of values**
b) Single value
c) Double value
d) All of the mentioned
26. Which of the following is not an aggregate function?
- a) Avg
b) Sum
c) **With**
d) Min
27. If we do want to eliminate duplicates, we use the keyword _____ in the aggregate expression.
- a) **Distinct**
b) Count
c) Avg
d) Primary key
28. All aggregate functions except _____ ignore null values in their input collection.



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- a) Relational
b) Deductive
c) Physical
d) Network
40. Which of the following is an attribute that can uniquely identify a row in a table?
a) Secondary key
b) Candidate key
c) Foreign key
d) Alternate key
41. Which of the following terms does refer to the correctness and completeness of the data in a database?
a) Data security
b) Data constraint
c) Data independence
d) Data integrity
42. The relationship between DEPARTMENT and EMPLOYEE is a
a) One-to-one relationship
b) One-to-many relationship
c) Many-to-many relationship
d) Many-to-one relationship



4) PL/SQL Programming

Position in Question Paper

Total Marks: 16

Q.1 e) 2-Marks.

Q.2 d) 4-Marks.

Q.4 e) 4-Marks.

Q.6 b) 6-Marks.

Descriptive Question

- 1] Explain PL/SQL block structure.
- 2] State 4 advantages of PL/SQL.
- 3] Explain while loop in PL/SQL with examples.
- 4] Write a PL/SQL program to print numbers from 1 to 10 using for loop.
- 5] Explain GOTO statement with example.
- 6] Describe exception handling with example.
- 7] Define cursor. List the two type of cursor
- 8] Explain following with syntax:
 - a) Function
 - b) Procedure
- 9] What is database triggers? How to create trigger?
- 10] Write PL/SQL program to calculate factorial of given numbers.

MCQ Questions:

1. In SQL the spaces at the end of the string are removed by _____ function.
 - a) Upper
 - b) String
 - c) **Trim**
 - d) Lower
2. Which of the following is not a part of PL/SQL
 - a) Triggers
 - b) Packages
 - c) Functions
 - d) **None of the mentioned**
3. A _____ is a statement that the system executes whenever a database is modified
 - a) **Trigger**
 - b) Function
 - c) Package
 - d) Protocol
4. Foreign key is the one in which the _____ of one relation is referenced in another relation.
 - a) Foreign key
 - b) **Primary key**



- c) References
d) Check constraint
5. The database administrator who authorizes all the new users, modifies the database and takes grants privilege is
a) Super user
b) **Administrator**
c) Operator of operating system
d) All of the mentioned
6. A _____ is a special kind of a store procedure that executes in response to certain action on the table like insertion, deletion or updating of data.
a) Procedures
b) **Triggers**
c) Functions
d) None of the mentioned
7. Triggers are not supported in
a) Delete
b) Update
c) **Views**
d) All of the mentioned
8. The CREATE TRIGGER statement is used to create the trigger. THE _____ clause specifies the table name on which the trigger is to be attached. The _____ specifies that this is an AFTER INSERT trigger.
a) for insert, on
b) **On, for insert**
c) For, insert
d) None of the mentioned
9. A Delete command operates on _____ relation.
a) One
b) Two
c) **Several**
d) Null
10. Which of the following is not a part of PL/SQL
a) Triggers
b) Packages
c) Functions
d) **None of the mentioned**
11. A _____ is a statement that the system executes whenever a database is modified
a) **Trigger**
b) Function
c) Package
d) Protocol
12. Which keyword is used instead of the assignment operator to initialize variables?
a) NOT NULL
b) **DEFAULT**
c) %TYPE
d) %ROWTYPE
13. Which statements execute a sequence of statements multiple times?
a) EXIT
b) **LOOP**
c) Both A & B
d) None of the above
14. Which of the following returns all distinct rows selected by either query?
a) INTERSECT
b) MINUS
c) **UNION**
d) UNION ALL



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15. Which statements are used to control a cursor variable?
- OPEN-FOR
 - CLOSE
 - FETCH
 - All mentioned above**
16. What is the maximum number of triggers that can apply to a single table?
- 14
 - 12
 - 10
 - 16
17. The variables or expressions passed from the calling subprogram are -
- Actual Parameters**
 - Formal Parameters
 - Both A & B
 - None of the above
18. Subprograms are named PL/SQL blocks that can be called with a set of parameters.
- True**
 - False
19. You can pass parameters to procedures or functions in a package.
- True**
 - False
20. PL/SQL is a completely portable, high-performance transaction processing language.
- True**
 - False
21. PL/SQL stored procedures move application code from the server to the client.
- True
 - False**
22. How many types of literals are available in PL/SQL?
- 6
 - 5
 - 2
 - 4
23. Which operator tests set membership?
- IN Operator**
 - LIKE Operator
 - BETWEEN Operator
 - IS NULL Operator
24. "NO_DATA_FOUND" and "TOO_MANY_ROWS" are the two most common errors found when executing a SELECT statement.
- True**
 - False
25. Which of the following returns the current value in a specified sequence.
- CURRVAL**
 - Both A & B
 - NEXTVAL
 - None of the above
26. Which operators combine the results of two queries into one result?
- Set operator**
 - Both A & B
 - Row Operator
 - None of the above
27. A recursive subprogram is one that calls itself.
- True**
 - False



28. Which of the following provides a way for your program to select multiple rows of data from the database and then process each row individually?
- a) **PL/SQL Cursors**
 - b) PL/SQL Trigger
 - c) PL/SQL Select
 - d) PL/SQL Process
29. PL/SQL Exception message consists of -
- a) Type of Exception
 - b) An Error Code
 - c) A message
 - d) **All mentioned above**
30. Which Exception is also known as Oracle named exception handler?
- a) **Predefined Exception**
 - b) Internal Exception
 - c) User defined Exception
 - d) None of the above
31. Which statement lets you create standalone functions that are stored in an Oracle database?
- a) SQL CREATE PROCEDURE
 - b) **SQL CREATE FUNCTION**
 - c) Both A & B
 - d) None of the above
32. Which parameter acts like a constant inside the subprogram?
- a) **IN**
 - b) OUT
 - c) Both A & B
 - d) None of the above
33. Which of the following is used to define code that is executed / fired when certain actions or event occur?
- a) Replace
 - b) Keyword
 - c) **Trigger**
 - d) Cursor
34. Which Operator Returns TRUE if a subquery returns at least one row?
- a) **EXISTS**
 - b) IN
 - c) IS NULL
 - d) LIKE
35. How many attributes does every explicit cursor and cursor variable have?
- a) 3
 - b) 2
 - c) **4**
 - d) 5
36. Collection is an ordered group of elements, all of the same type.
- a) **True**
 - b) False
37. Arrays in other languages become varrays in PL/SQL.
- a) **True**
 - b) False
38. How many nested IF clauses can be included within an IF clause?
- a) 1
 - b) 0
 - c) 15
 - d) **Any number**
39. PL/SQL stands for _____
- a) Programming Language/SQL
 - b) **Procedural Language/SQL**



- c) Portable Language/SQL
d) None of the above
40. Which of the following is used to input the entry and give the result in a variable in a procedure?
- a) Put and get
b) Get and put
c) Out and In
d) In and out
41. Temporary stored procedures are stored in _____ database.
- a) Master
b) Model
c) User specific
d) Tempdb
42. A line of PL/SQL text contains groups of characters known as
- a) Lexical Units**
b) Literals
c) Textual Units
d) Identifiers
43. We use _____ name PL/SQL program objects and units.
- a) Lexical Units
b) Literals
c) Delimiters
d) Identifiers
44. If no header is specified, the block is said to be an _____ PL/SQL block.
- a) Strong
b) Weak
c) Empty
d) Anonymous
45. Triggers are supported in
- a) Delete
b) Update
c) **Views**
d) All of the mentioned
46. The default extension for an Oracle SQL*Plus file is:
- a) .txt
b) .pls
c) .ora
d) .sql
47. Which of the following is NOT an Oracle-supported trigger?
- a) BEFORE
b) DURING
c) AFTER
d) INSTEAD OF
48. Triggers _____ enabled or disabled
- a) Can be**
b) Cannot be
c) Ought to be
d) Always



5) Database Security and Transaction Processing

Position in Question Paper

Total Marks: 10

Q.1 f) 2-Marks.

Q.3 d) 4-Marks.

Q.4 c) 4-Marks.

Q.6 c) 6-Marks.

Descriptive Question:

- 1] What is the use of GRANT and REVOKE?
- 2] List types of DBMS users.
- 3] Explain properties of transaction.
- 4] Draw transaction state diagram.
- 5] Explain the Database security.
- 6] a) create user "Rahul".
b) Grant create, select, insert, update privilege to 'Rahul'.
c) Remove the select privilege from user 'Rahul'.

MCQ Questions:

1. In order to maintain the consistency during transactions, database provides
 - a) Commit
 - b) **Atomicity**
 - c) Flashback
 - d) Retain
2. Which of the following makes the transaction permanent in the database?
 - a) View
 - b) **Commit**
 - c) Rollback
 - d) Flashback
3. In order to undo the work of transaction after last commit which one should be used?
 - a) View
 - b) Commit
 - c) **Rollback**
 - d) Flashback
4. TRANSACTION.....
Commit;
ROLLBACK;
What does Rollback do?
 - a) Undoes the transactions before commit



- b) Clears all transactions
c) Redoes the transactions before commit
d) No action
5. Which of the following is used to provide privilege to only a particular attribute?
a) Grant select on employee to Amit
b) Grant update(budget) on department to Raj
c) Grant update(budget,salary,Rate) on department to Raj
d) Grant delete to Amit
6. Which of the following statement is used to remove the privilege from the user Amir?
a) Remove update on department from Amir
b) Revoke update on employee from Amir
c) Delete select on department from Raj
d) Grant update on employee from Amir
7. If we wish to grant a privilege and to allow the recipient to pass the privilege on to other users, we append the _____ clause to the appropriate grant command.
a) With grant
b) Grant user
c) Grant pass privilege
d) With grant option
8. The granting and revoking of roles by the user may cause some confusion when that user role is revoked. To overcome the above situation
a) The privilege must be granted only by roles
b) The privilege is granted by roles and users
c) The user role cannot be removed once given
d) By restricting the user access to the roles
9. The database administrator who authorizes all the new users, modifies the database and takes grants privilege is
a) Super user
b) Administrator
c) Operator of operating system
d) All of the mentioned
10. What is used for database security?
a) data encryption
b) a view
c) finger print
d) all of the above
11. Data security threats include:
a) privacy invasion
b) hardware protection
c) fraudulent manipulation of data
d) all of the above
12. What are ACID properties of Transactions?
a. Atomicity, Consistency, Isolation, Database
b. Atomicity, Consistency, Isolation, Durability
c. Atomicity, Consistency, Inconsistent, Durability

- d. Automatically, Concurrency, Isolation, Durability
13. Database locking concept is used to solve the problem of
- a. Lost Update
 - b. Uncommitted Dependency
 - c. Inconsistent Data
 - d. All of the above**
14. Which of the following is a property of transactions?
- a) Atomicity
 - b) Durability
 - c) Isolation
 - d) All of the mentioned**
15. Execution of transaction in isolation preserves the _____ of a database
- a) Atomicity
 - b) Consistency**
 - c) Durability
 - d) All of the mentioned
16. Which of the following is not a property of a transaction?
- a) Atomicity
 - b) Simplicity**
 - c) Isolation
 - d) Durability
17. Which of the following systems is responsible for ensuring durability?
- a) Recovery system**
 - b) Atomic system
 - c) Concurrency control system
 - d) Compiler system
18. Which of the following systems is responsible for ensuring isolation?
- a) Recovery system
 - b) Atomic system
 - c) Concurrency control system**
 - d) Compiler system
19. Backing up your SQL Server database is essential for _____ your data.
- a) Protecting**
 - b) Preventing
 - c) Replication
 - d) None of the mentioned
20. Backup can occur while the database is in _____ state.
- a) Online**
 - b) Offline
 - c) Restoring
 - d) All of the mentioned
21. Which of the following is not a type of backup?
- a) Database backup
 - b) Data backup
 - c) Table backup**
 - d) all of the mentioned
22. _____ backups represent the whole database at the time the backup finished.
- a) copy-only backup
 - b) Database backup**
 - c) Data backup
 - d) all of the mentioned
23. Which of the following backups contain transaction logs?
- a) copy-only backup
 - b) Database backup
 - c) Data backup
 - d) None of the mentioned**
24. A _____ consists of a sequence of query and/or update statements.
- a) Transaction**
 - b) Commit



- c) Rollback
d) Flashback
25. Which of the following makes the transaction permanent in the database?
a) View
b) **Commit**
c) Rollback
d) Flashback
26. In order to undo the work of transaction after last commit which one should be used?
a) View
b) Commit
c) **Rollback**
d) Flashback
27. The recovery scheme must also provide
a) **High availability**
b) Low availability
c) High reliability
d) High durability
28. Which of the following is used to avoid cascading of authorizations from the user ?
a. Granted by current role
b. **Revoke select on department from Amit, Satoshi restrict;**
c. Revoke grant option for select on department from Amit;
d. Revoke select on department from Amit, Satoshi cascade;
29. If we wish to grant a privilege and to allow the recipient to pass the privilege on to other users, we append the _____ clause to the appropriate grant command.
a) With grant
b) Grant user
c) Grant pass privilege
d) **With grant option**
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