

Question Bank Of Data Base Technologies

Q. No.1 An _____ is a set of entities of the same type that share the same properties, or attributes.

a) Entity set

b) Attribute set

c) Entity mode

d) Relation set

2. The attribute name could be structured as an attribute consisting of first name, middle initial, and last name. This type of attribute is called

a) Derived attribute;

b) Simple attribute

c) Multivalued attribute

d Composite attribute

3. Which of the following symbols represent entity sets in an ER diagram?

a) Diamonds

b) Rectangles

c) Divided Rectangles

d) Lines

4. Which of the following symbols represent relationship sets in an ER diagram?

a) Divided Rectangles

b) Diamonds

c) Lines

d) Undivided rectangles

5. What does a directed line(->) relationship set to two entity sets mean?

- a) **One-One**
- b) Many-one
- c) Many-many
- d) One-many

6. Full form of DDL is _____.

- a) Data Describe Language
- b) Definition Data Language
- c) **Data Definition Language**
- d) Data Distinct Language

7. In which event(s) trigger is executed?

- a) DDL
- b) DML
- c) Database Operation
- d) **All of the above**

8. How many types of exceptions are there in Database?

- a) 1
- b) **2**
- c) 3
- d) 4

9. Commands that comes under DDL is/are –

- a) DROP.
- b) CREATE
- c) TRUNCATE
- d) **All of the above**

10. Full form of DML is –

- a) Data Mapping Language
- b) Data Multiplication Language

c) Data Manipulation Language

d) Data Modify Language

11. The table records can be retrieved using which command?

a) RETRIEVE

b) SELECT

c) CREATE

d) ALTER

12. Every weak entity set must be associated with an identifying entity

a) True..

b) False

13. The ... data type is responsible for sorting a combination of date and time information.

a) TIMESTAMP..

b) DATE

c) TIME

d) DATETIME

14. What is the output of the following code?

DECLARE

grade char(1) := ''B';

BEGIN

case

when grade = ''A' then dbms_output.put_line(''Excellent');

when grade = ''B' then dbms_output.put_line(''Very good');

when grade = ''C' then dbms_output.put_line(''Well done');

when grade = ''D' then dbms_output.put_line(''You passed');

when grade = ''F' then dbms_output.put_line(''Better try again');

else dbms_output.put_line(''No such grade');

end case;

END;

a)- It has syntax error, so there will not be any output.

b)- B

c)- Very good

d)-No such grade

15. .A subprogram can be created –

A - At schema level.

B - Inside a package.

C - Inside a PL/SQL block.

D - All of the above.

16. Observe the following code and fill in the blanks –

DECLARE

total_rows number(2);

BEGIN

UPDATE employees

SET salary = salary + 500;

IF _____ THEN

dbms_output.put_line('no employees selected');

ELSIF _____ THEN

total_rows := _____;

dbms_output.put_line(total_rows || ' employees selected ');

END IF;

END;

A - %notfound, %found, %rowcount.

B - sql%notfound, sql%found, sql%rowcount.

C - sql%found, sql%notfound, sql%rowcount.

D - %found, %notfound, %rowcount.

17. Any subprogram not in the package specification but coded in the package body is called a

A - Public object.

B - Private object.

C - None of the above.

D - Both of the above.

18. Life Cycle of typical cursor involves_____Steps in SQL Server?

A. 1

B. 2

C. 3

D. 5

19 .Which of the operations of a cursor checks for the validity of a SQL statement?

A. OPEN

B. BIND

C. FETCH

D. PARSE

20. What does a COMMIT statement do to a CURSOR?

A. Open the Cursor

B. Fetch the Cursor

C. Close the Cursor

D. None of the above

21. What is an implicit CURSOR FOR LOOP statement?

1. SELECT statement specified outside the CURSOR FOR LOOP statement.

2. Cursor specified in the CURSOR FOR LOOP statement.

3. Cursor specified in any LOOP statement.

4. SELECT statement specified inside the CURSOR FOR LOOP statement.

22. What is the data type of the return value of SQL%ROWCOUNT

attribute?

- A. INTEGER
- B. NUMBER
- C. PLS_INTEGER**
- D. BOOLEAN

23. What is the scope of the index of the CURSOR FOR LOOP?

1. Local to the loop

2. Global

3. Local to the loop and enclosing loops

4. Block scope (in the entire PL/SQL block)

5. PL/SQL provides a built-in, interpreted and OS independent programming environment.

- a) True
- b) False

24. What will be the output of following code?

DECLARE

num1 INTEGER;

num2 REAL;

num3 DOUBLE PRECISION;

BEGIN

null;

END;

/

- a) PL/SQL procedure successfully completed
- b) PL/SQL procedure incompleated
- c) PL/SQL successfully completed
- d) None of the above

25. Which variable is use for Variable-length character string with maximum size of 32,767 bytes

- a) varchar
- b) nvarchar
- c) both 1 and 2**
- d) None of the above

26. How to initialize variable in PL/SQL?

- a) **counter binary_integer := 0;**
- b) counter binary_integer = {0};
- c) counter binary_integer 0;
- d) None of the above

27. what is Fixed-length strings ?

- a) **In such strings, programmers specify the length while declaring the string. The string is right-padded with spaces to the length so specified.**
- b) In such strings, a maximum length up to 32,767, for the string is specified and no padding takes place.
- c) These are variable-length strings that can be up to 128 terabytes.
- d) All of the above

28. A standalone procedure can be called in _____

- a) **two ways**
- b) three ways
- c) four ways
- d) (None of the above

29. How to delete a standalone procedure?

- a) **A standalone procedure is deleted with the DROP PROCEDURE statement.**
- b) A standalone procedure is deleted with the Delete PROCEDURE statement.
- c) Both 1 and 2
- d) None of the above

30. What is Implicit cursors?

- a) **Implicit cursors are automatically created by Oracle whenever an SQL statement is executed,**
- b) implicit cursors are not automatically created by Oracle whenever an SQL statement is executed,
- c) implicit cursors are automatically created by mysql whenever an SQL statement is executed,
- d) None of the above

31. What is %FOUND?

a) Returns TRUE if an INSERT, UPDATE, or DELETE statement affected one or more rows or a SELECT INTO statement returned one or more rows. Otherwise, it returns FALSE.

b) Returns FALSE if an INSERT, UPDATE, or DELETE statement affected one or more rows or a SELECT INTO statement returned one or more rows. Otherwise, it returns TRUE.

c) Returns TRUE if only an INSERT, or DELETE statement affected one or more rows or a SELECT INTO statement returned one or more rows. Otherwise, it returns FALSE.

d) None of the above

32. Subprograms that do not return a value directly known as?

A. Functions

B. Procedures

C. Triggers

D. None of the above

33. Which of the following is mandatory part in procedure?

A. Declarative Part

B. Exception-handling

C. Executable Part

D. All of the above

34. An _____ parameter lets you pass a value to the subprogram.

A. IN

B. OUT

C. IN OUT

D. None of the above

35. Data items that have internal components that can be accessed individually known as?

A. Scalar

B. LOB

C. Composite

D. Reference

36. NUMBER has a subtype called INTEGER.

A. TRUE

B. FALSE

C. Can be true or false

D. Can not say

37. Signed integer represented in?

- A. 8 bits**
- B. 16 bits
- C. 24 bits
- D. 32 bits

38. Floating type with maximum precision of 38 decimal digits known as?

- A. DECIMAL(prec, scale)
- B. DOUBLE PRECISION
- C. NUMERIC(pre, scale)**
- D. BINARY_DOUBLE

39. CHAR has fixed-length character string with maximum size of?

- A. 32,768 bytes
- B. 32,767 bytes**
- C. 65,534 bytes
- D. 65,532 bytes

40. The set of rows the cursor holds is referred to as the _____.

- A. inactive set
- B. simple set
- C. active set**
- D. complex set

41. Oracle creates _____ when SQL statements are processed.

- A. Content Areas
- B. Context Areas**
- C. Context Ids
- D. Content Ids

42. The Implicit cursors are created in order to process the _____ statements.

- A. DDL
- B. DCL
- C. DML**
- D. TCL

43. Explicit cursors are programmer-defined cursors for gaining more control over the context area.

- A. Yes**

- B. No
- C. Can be yes or no
- D. Can not say

44. All objects placed in the specification are called _____objects.

- A. private
- B. protected
- C. public**
- D. None of the above

45. The _____Statement is used for creating the package body.

- A. CREATE
- B. CREATE PACKAGE
- C. CREATE BODY
- D. CREATE PACKAGE BODY**

46. Which of the following are the advantages of PL/SQL Packages?

- A. Modularity
- B. Easier Application Design
- C. Information Hiding
- D. All of the above**

47. Any subprogram not in the package specification but coded in the package body is called a _____object.

- A. protected
- B. private**
- C. self
- D. public

48. Which package lets PL/SQL programs read and write operating system (OS) text files?

- A. UTL_HTTP
- B. UTL_FILE**
- C. UTL_SMTP

49. Triggers can be defined on the?

- A. table
- B. view
- C. schema

D. All of the above

50. Which of the following specifies when the trigger will be executed?

A. BEFORE

B. AFTER

C. INSTEAD OF

D. All of the above

51. Which specifies the column name that will be updated?

A. For col_name

B. ON col_name

C. OF col_name

D. WHEN col_name

52. In which event(s) trigger is executed?

A. DDL

B. DML

C. Database Operation

D. All of the above

53. How many types of exceptions are there in Database?

A. 1

B. 2

C. 3

D. 4

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54. Which of the following statements about indexes in a database is true?

A. Indexes should be created on all columns in a table

B. Indexes should be created on columns with low selectivity

C. Indexes should be created on columns used frequently in joins and WHERE clauses

D. Indexes should not be created on primary keys.

55. Which of the following is a disadvantage of using indexes in a database?

A. Improved query performance

B. Increased storage requirements

C. Reduced concurrency

D. Decreased data consistency

56. What is the purpose of a clustered index in a database?

A. To improve the speed of data retrieval

- B. To enforce referential integrity between tables
- C. **To sort data in a specific order**
- D. To optimize data storage

57. Which of the following is a type of index that is based on a sorted list of values?

- A. Hash index
- B. Bitmap index
- C. Clustered index
- D. **B-tree index**

58. What is an index in a database?

- A. A table that stores data
- B. A pointer to a table
- C. **A data structure that improves the speed of data retrieval**
- D. A temporary storage area for data

59. Which of the following statements about the durability property in ACID is true?

- A. It ensures that transactions are executed in an atomic manner
- B. It ensures that transactions are consistent with the database
- C. **It ensures that once a transaction is committed, it is permanently stored in the database**
- D. It ensures that concurrent transactions do not interfere with each other

60. What is the purpose of the isolation property in ACID?

- A. To ensure that transactions are executed in an atomic manner
- B. To ensure that transactions are consistent with the database
- C. **To prevent concurrent transactions from interfering with each other**
- D. To ensure that transactions are permanently stored in the database

61. Which of the following is not a part of the ACID properties of a database?

- A. Atomicity
- B. **Consistency**
- C. Isolation
- D. Durability

62. What is a database instance?

- A. A set of related tables in a database

- B. A copy of a database on a separate server
- C. **A running copy of a database in memory**
- D. A backup of a database stored on disk

63. Which of the following best describes a database instance?

- A. A collection of data that is organized into tables
- B. A set of SQL statements used to manipulate data
- C. **An individual occurrence of a database at a specific point in time**
- D. A tool used to visualize the structure of a database

64. What happens when a database instance is shut down?

- A. All data in the database is deleted
- B. The database is backed up to disk
- C. **The database is no longer accessible**
- D. The database is migrated to a different server

65. Which of the following is not a characteristic of a database instance?

- A. **It is a copy of the database stored on disk**
- B. It is created when the database is started
- C. It runs in memory
- D. It is used to manage connections to the database

66. What is the relationship between a database and a database instance?

- A. **A database instance is a copy of the database**
- B. A database instance is a subset of the database
- C. A database instance is a tool used to manage the database
- D. A database instance is synonymous with the database

67. What is a database schema?

- A. A set of rules that govern how data is stored in a database
- B. A collection of tables in a database
- C. **A blueprint or plan that describes the structure of a database**
- D. A set of instructions for querying a database

68. Which of the following best describes the purpose of a database schema?

- A. To manage database backups
- B. **To define the structure and organization of a database**

- C. To manage database users and their permissions
- D. To optimize database performance

69 Which of the following elements are typically included in a database schema?

- A. **Tables, columns, and relationships**
- B. Query statements and stored procedures
- C. Usernames and passwords
- D. Backup and restore procedures

70 What is the relationship between a schema and a database?

- A. A schema is a subset of a database
- B. A schema is a copy of a database
- C. A schema is synonymous with a database
- D. **A schema describes the structure of a database**

MySQL Storage Engines:

71. What is a MySQL storage engine?

- A. A tool used to connect to a MySQL database
- B. **A plugin that allows you to store data in a specific way in a MySQL database**
- C. A feature that allows you to run multiple MySQL databases on a single server
- D. A service that provides automatic backups for a MySQL database

72. Which of the following is not a MySQL storage engine?

- A. MyISAM
- B. InnoDB
- C. **SQL Server**

D. Memory

73. Which MySQL storage engine is the default in most installations of MySQL?

A. MyISAM

B. **InnoDB**

C. Memory

D. CSV

74. Which MySQL storage engine supports transactions and row-level locking?

A. MyISAM

B. **InnoDB**

C. Memory

D. CSV

75. Which MySQL storage engine is best for read-heavy workloads?

A. **MyISAM**

B. InnoDB

C. Memory

D. CSV

76. Which MySQL storage engine is best for write-heavy workloads?

A. MyISAM

B. **InnoDB**

C. Memory

D. CSV

77. What is a stored procedure?

A. **A program that performs a specific task in a database**

B. A set of data organized into tables in a database

C. A backup of a database stored on disk

D. A tool used to query a database

78. Which of the following is not a benefit of using stored procedures?

- A. Increased security
- B. Improved performance
- C. Simplified application development
- D. **Reduced storage requirements**

79. How are stored procedures stored in a database?

- A. As a file on disk
- B. As a binary object in memory
- C. **As a string of SQL code in memory**
- D. As a series of SQL statements in a table

80. Which of the following statements best describes the purpose of a stored procedure?

- A. To create and modify tables in a database
- B. **To execute complex business logic in a database**
- C. To provide a backup of a database
- D. To manage user permissions in a database

81. Which of the following is not a component of a stored procedure?

- A. Parameters
- B. SQL statements
- C. Conditionals
- D. **Tables**

82. Which of the following statements best describes the relationship between a stored procedure and a function?

- A. They are identical and can be used interchangeably
- B. **A function returns a value, while a stored procedure does not**
- C. A stored procedure is called by an application, while a function is called by a trigger
- D. A function is used for data manipulation, while a stored procedure is used for query optimization

83. Which of the following SQL statements is used to create a stored procedure?

- A. SELECT
- B. UPDATE
- C. DELETE
- D. **CREATE PROCEDURE**

84. Which of the following is an advantage of using stored procedures instead of ad-hoc SQL queries?

- A. Stored procedures are easier to write
- B. **Stored procedures are more secure**
- C. Stored procedures are more efficient for small databases
- D. Stored procedures require less memory

85. Which of the following is a disadvantage of using stored procedures?

- A. **Stored procedures can be difficult to debug**
- B. Stored procedures cannot be called by applications
- C. Stored procedures require a separate database server
- D. Stored procedures are less efficient for large databases

86. What is a loop construct in a database?

- A. A way to execute a block of code repeatedly
- B. A function that returns a set of rows
- C. A way to create a new database table
- D. A tool used to modify table data

87. Which of the following statements best describes the purpose of a loop construct?

- A. To modify table data in a database
- B. To optimize query performance in a database
- C. **To execute a block of code repeatedly until a condition is met**
- D. To create new tables in a database

88. Which of the following is a valid loop construct in MySQL?

- A. FOR
- B. WHILE
- C. REPEAT
- D. **All of the above**

89. Which of the following loop constructs is used to execute a block of code a specific number of times?

- A. **FOR**

- B. WHILE
- C. REPEAT
- D. ITERATE

90. Which of the following loop constructs is used to execute a block of code while a condition is true?

A. FOR

B. **WHILE**

- C. REPEAT
- D. ITERATE

91. Which of the following loop constructs is used to execute a block of code at least once?

A. FOR

B. WHILE

C. **REPEAT**

D. ITERATE

92. Which of the following is a valid use case for a loop construct in a database?

A. To modify table data in a database

B. To optimize query performance in a database

C. **To perform complex calculations or data transformations**

D. All of the above

Answer: C

93. Which of the following is a control statement used with loop constructs in MySQL to exit a loop?

A. EXIT

B. **LEAVE**

C. BREAK

D. STOP

94. Which of the following statements best describes the purpose of the ITERATE statement in MySQL?

- A. To exit a loop
- B. **To skip to the next iteration of a loop**
- C. To pause a loop temporarily
- D. To restart a loop

95. Which of the following is a disadvantage of using loop constructs in a database?

- A. Loop constructs can make code more difficult to read and understand
- B. Loop constructs can cause data inconsistencies in a database
- C. Loop constructs can only be used with certain programming languages
- D. **Loop constructs can cause performance issues in a database**

96. What is a Cursor in a database?

- A. A tool used to modify table data
- B. **A temporary work area created in memory to hold query results**
- C. A function that returns a set of rows
- D. A way to execute a block of code repeatedly

97. Which of the following is a real-time use case for Cursors in a database?

- A. To modify table data in a database
- B. To optimize query performance in a database
- C. To perform complex calculations or data transformations
- D. **To process large datasets row by row**

98. Which of the following statements best describes the purpose of a Cursor in a database?

- A. To modify table data in a database
- B. To optimize query performance in a database
- C. To execute a block of code repeatedly until a condition is met
- D. **To process data one row at a time**

99. Which of the following is a valid Cursor type in MySQL?

- A. FORWARD-ONLY
- B. STATIC
- C. DYNAMIC
- D. **All of the above**

100. Which of the following statements best describes the benefit of using a Cursor in a database?

- A. **Cursors can make code more efficient and reduce resource usage**
- B. Cursors can be used to create new database objects
- C. Cursors can only be used with certain programming languages
- D. Cursors can cause data inconsistencies in a database