

## MANTHLY TEST SEPTEMBER 2017

### QUESTION BANK CLASS: XII SUBJECT: INFORMATICS PRACTICES (065)

#### DATABASE CONNECTIVITY TO MYSQL

##### Level- I Questions

1. What is the importance of `java.sql.*`; in java jdbc connection ?  
Ans: The `java.sql.package` has to be imported first before we can create a java jdbc connection to the database.
2. What is `DriverManager` ?  
Ans: `DriverManager` a class of `java.sql` package that controls a set of JDBC drivers. Each driver has to be registered with this class.
3. What is the purpose of `connection.close()` method?  
Ans: This method is used for disconnecting the connection. It frees all the resources occupied by the database.
4. Name the four components of JDBC.  
Ans:JDBC consists of four components: The JDBC API, JDBC Driver Manager, The JDBC Test Suite and JDBC-ODBC Bridge.
5. What are the steps involved in establishing a connection?  
Ans: To establishing a connection we need to follow two steps: a) loading the driver and b) making a connection.
6. What is `ResultSet` ?  
Ans: A Result Set (represented by a `ResultSet` object) refers to a logical set of records that are fetched from the database by executing a query and made available to the application program.
7. What type of parameter that used in `executeQuery( )` method?  
Ans: The `executeQuery( )` method has a single String parameter. This parameter must be valid SQL command.
8. What is `Connection`? What is its role?  
Ans: A `Connection` (represented through `Connection` object) is the session between the application program and the database. To do anything with database, one must have a connection object.
9. What all JDBC classes/objects are used in a database connectivity application?  
Ans: a) `DriverManager` Class b) `Connection` Object c)`Statement` Object d) `ResultSet` Object
10. What is JDBC? What is its basic functionality?  
Ans: The JDBC(Java Database Connectivity ) API defines interfaces and classes for writing database applications in Java by making database connections. Using JDBC we can send SQL, PL/SQL statements to almost any relational database. JDBC is a Java API for executing SQL statements and supports basic SQL functionality. It provides RDBMS access by allowing us to embed SQL inside Java code. Because Java can run on a thin client, applets embedded in Web pages can contain downloadable JDBC code to enable remote database access.



## LEVEL- II Questions

11. Name the methods which are useful for executing SQL statements.

Ans: There are two methods which are responsible for executing SQL statements. These are: • executeQuery( ) & executeUpdate( )

12. What is role of first() method of ResultSet object?

Ans:- It is used to move the cursor to the first row in the ResultSet object .

13. What is role of last() method of ResultSet object?

Ans:- It is used to move the cursor to the last row in the ResultSet object .

14. What is difference between executeQuery( ) & executeUpdate( )

Ans:- executeQuery( )- For SQL statements that produce a single result set (like simple SQL query).  
executeUpdate( )- For executing INSERT, UPDATE OR DELETE statements .

15. What is role of next() method of resultSet object,

Ans:- It is used to move the cursor forward one row.

16. What are the main tasks of JDBC ?

Ans:- **The common tasks of JDBC are as follows:**

- Create an instance of a JDBC driver or the JDBC drivers can be loaded through the jdbc.drivers
- Register a driver
- Specify a database
- Open a database connection
- Submit a query
- Receive results
- Process results

17. Which package must be imported to implement database connection?

Ans: java.sql package.

18. Name the method used to trigger an update query using JDBC.

Ans:- executeUpdate( )

19. What is role of Class.forName() ?

Ans:- It registers the JDBC Driver.

20. What is a connection?

Ans:- A connection is the session between the application program and the database. To do anything with database, one must have a connection object.

## LEVEL- III Questions

21. What is role of resultSet?

Ans:- A result set (represented by a ResultSet object) refers to a logical set of records that are fetched from the database by executing a query and made available to the application –program.

22. What does DriverManager do?

Ans:- Once we have formed the DB\_URL , then we can create connection using DriverManager class's getConnection() method.

23. Which methods are used to execute SQL queries?

Ans:- executeQuery( )

24. Write a statement to register driver com.mysql.jdbc.Driver with DriverManager?

Ans:-Class.forName("com.mysql.jdbc.Driver");

25. Name the methods for the following?

(a) to fetch an integer value from the resultset.

(b) to fetch a float value from a resultset.

(c) To fetch a date value from the resultset

(d) To fetch a String value from the resultset.

Ans:- (a)resultSetObjectName.getInt(columnNm)

( b)resultSetObjectName.getFloat(columnNm)

( c)resultSetObjectName.getDate(columnNm)

( d)resultSetObjectName.getString(columnNm)

26. What is the JDBC-ODBC Bridge?

Ans: The JDBC-ODBC Bridge is a JDBC driver which implements JDBC operations by translating them into ODBC operations. To ODBC it appears as a normal application program. The Bridge implements JDBC for any database for which as ODBC driver is available. The Bridge is implemented as the sun.jdbc.odbc Java package and contains a native library used to access ODBC.

27. Write code to a mysql database namely school and then fetch all those records from table student where grade is "A".

Ans:-try{

Class.forName("java.sql.Driver");

Connection con=DriverManager.getConnection("jdbc:mysql://localhost/school","root","");

Statement stmt=con.createStatement();

String query="SELECT \*FROM STUDENT WHERE GRADE='A'";

ResultSet rs=stmt.executeQuery(query);

While rs.next()

{

Get data here according to columnName

}

28.What are the various steps involved in establishing a JDBC connection?

Ans:- Steps for Creating Database Connectivity Application There are mainly six steps –

Step-1 Import the Packages Required for Database Programming.

Step-2 Register the JDBC Driver

Step-3 Open a Connection

Step-4 Execute a Query

Step-5 Extract Data from Result set

Step-6 Clean up the Environment

29. Differentiate between JDBC and ODBC ?

Ans:- **ODBC** is procedural and **JDBC** is object oriented. 2. **ODBC** is used to provide connection **between** front-end application(other than java) and back-end (database like ms-access) and **JDBC** is used to provide connection **between** JAVA and database(oracle,sybase,DB2,ms-access).

30.Explain the purpose of DriverManager.

Ans:The DriverManager looks after the managing the drivers for a JDBC application. When it is instantiated it makes an attempt to load the driver classes. When the method getConnection( ) is invoked, the driver manager attempts to locate the suitable driver. The DriverManager obtains the information about the drivers such as

registering, locating, finding the drivers loaded, setting the time to wait when it tries to get the connection to a database.