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Seat No. \_\_\_\_\_

**SARDAR PATEL UNIVERSITY**  
**MASTER OF COMPUTER APPLICATIONS**  
**SEMESTER - III**

**PS03CMCA21 - Object Oriented Programming Using Java**  
**Friday 5<sup>th</sup> April 2019**

**Max. Marks: 70**

**Time: 2:00 pm to 5:00 pm**

[8]

**Q-1 Choose the most appropriate option for each question:**

- \_\_\_\_\_ command is used to execute a compiled java program.  
A) javac  
B) java  
C) jdb  
D) None of these
- Which of these methods can be used to output a string in an applet?  
A) display()  
B) print()  
C) drawString()  
D) None of these
- What is the result of evaluating relational operators?  
A) boolean  
B) int  
C) char  
D) None of these
- Classes from which java package can be used by their name without importing?  
A) java.io  
B) java.util  
C) java.net  
D) java.lang
- Which of the following describes AWT?  
A) A lightweight toolkit  
B) A heavyweight toolkit  
C) A pure Java toolkit  
D) None of these
- Which method is used to load the JDBC driver class?  
A) Class.forName()  
B) Java.forName()  
C) JDBC.getDriver()  
D) Database.getDriver()
- Which of the following class is not a part of the collections framework?  
A) ArrayList  
B) LinkedList  
C) Stack  
D) String
- Which of the following is not directly related to multithreading?  
A) start()  
B) Runnable  
C) main()  
D) run()

[14]

**Q-2 Answer the following questions (Any Seven):**

- Define the following: 1) Java Virtual Machine (JVM) 2) Polymorphism
- List any six features of the Java programming language.
- Differentiate between: AWT and Swing.
- Draw the life cycle of an applet program.
- Write a code snippet for handling *ArrayIndexOutOfBoundsException*.
- Write the names of the major Swing components.
- What is a layout manager? What does it do?

(1)

(P.T.O.)

8. List types of JDBC drivers.  
9. List important classes from the java.util package.

Q-3

- A. Write a short note on different layouts of Swing.  
B. Explain exception handling in Java.

[6]

[6]

OR

- B. List and explain different methods of the *String* class.

[6]

Q-4

- A. Discuss wrapper classes in detail with code snippets.  
B. Write a short note on event handling in Java.

[6]

[6]

OR

- B. Explain access modifiers like public, private, etc. in Java.

[6]

Q-5

- A. Explain the important classes for performing input / output in Java.  
B. Write sample code for inserting a row in a table using JDBC.

[6]

[6]

OR

- B. Explain arrays and the *ArrayList* class in Java with code snippets.

[6]

Q-6

- A. Compare the Java programming language with the C and C++ programming languages.  
B. Write a short note on multi-threading in Java.

[6]

[6]

OR

- B. Explain the following in the context of Java: 1) Generics 2) serialization 3) collections

[6]

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