Roll No. | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 09

B.Tech.(IT) (2012 to 2017 E-III) (Sem.–7)

ADVANCED JAVA

Subject Code : BTIT-906

M.Code : 71990

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

a. What is the purpose of volatile keyword in Java?

b. Differentiate between start and run method in Java Thread.

c. List any four public members of java.io.OutputStream.

d. Write any four characteristics of serializable interface.

e. How to connect Java application with Oracle and Mysql database using JDBC?

f. For what purpose native API driver is used?

g. List the advantages of Java beans.

h. "*Like generic class, we can create generic method that can accept any type of argument*". Comment.

i. Name the built-in Java annotations used in other annotations.

j. How user defined annotations are created in Java?

SECTION-B

2. "*Callable is same as Runnable but it can return any type of Object if we want to get a result or status from work (callable)*". Justify your answer with suitable reasoning.

3. What is console class? How can we access multiple files by single stream?

4. Discuss the various commonly used methods of ResultSet interface. Give suitable examples.

5. How wildcard is used in Java generics? Explain with suitable Java program.

6. Why do we need annotations in Java? How do annotations work?

SECTION-C

7. Discuss the process of inter-thread communication. Draw a well labeled diagram to represent thread life cycle in Java.

8. Discuss the concept of erasure in generics in Java. What are the effects of Type Erasure and Bridge Methods in Java?

9. "Protecting a bytestream outside the Java virtual machine is to encrypt the stream produced by the serialization package. Encrypting the bytestream prevents the decoding and the reading of a serialized object's private state". Explain with suitable example.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.