USN ☐☐☐☐☐☐☐☐☐☐   **18AI63**

Sixth Semester B.E. Degree Examination, June/July 2023
JAVA for Mobile Application

Time: 3 hrs.   Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1   a. Explain Java enumerations and write a code to demonstrate how varieties of apple can be represented through enumerations. **(08 Marks)**
   b. Explain following methods with suitable code snippet: (i) Values   (ii) ValueOf   **(04 Marks)**
   c. Explain type wrappers along with its importance and write a Java program to demonstrate how to use a numeric type wrapper to encapsulate a value and then extract that value. **(08 Marks)**

OR

2   a. Write a Java code that uses reflection to display the annotation associated with a method. Illustrate all methods used in the program. **(10 Marks)**
   b. Write a Java code to demonstrate auto boxing/unboxing occurs in expressions. **(10 Marks)**

Module-2

3   a. Explain the following collection classes with suitable code snippet:
(i) The ArrayList Class   (ii) The LinkedList Class   **(10 Marks)**
   b. Explain the collection framework core interfaces. Describe any two methods associated with Collection Interface. **(10 Marks)**

OR

4   a. Explain below listed methods with respect to algorithm defined inside collection framework
(i) reverseOrder   (ii) Shuffle   **(10 Marks)**
   b. Write a Java code to demonstrate custom comparator, which implements the compare( ) method for string that operates in reverse of normal. **(10 Marks)**

Module-3

5   a. Explain the two string methods that returns the first occurance of a character and last occurance of a character. Illustrate same with suitable Java code. **(10 Marks)**
   b. Illustrate how to modify a string using a following methods:
(i) substring( )   (ii) concat( )   (iii) replace( )   (iv) trim( )   **(10 Marks)**

OR

6   a. With relevant example, explain the following String Buffer methods:
(i) ensureCapacity( )   (ii) setLength( )   (iii) append( )   (iv) insert( )   **(10 Marks)**
   b. Demonstrate how following methods can be used in character extraction:
(i) charAt( )   (ii) getChars( )   (iii) getBytes( )   (iv) toCharArray( )   **(10 Marks)**

Module-4

7   a. With a neat block diagram, explain the architecture of android. **(10 Marks)**
   b. With suitable code snippet, explain linking activities using intents. **(10 Marks)**

OR

8 a. What is an activity? With a neat diagram, explain the Activity Life Cycle. Describe all the events associated. **(10 Marks)**

   b. Summarize the states, a fragments goes through after its creation. List the different methods that are called when fragment transits from one state to another. **(10 Marks)**

Module-5

9 a. Describe the following layout available in android: (i) Linear layout   (ii) Relative layout **(10 Marks)**

   b. Describe progress bar view with suitable code snippet. **(10 Marks)**

OR

10 a. Write a code to build mobile application to retrieve contacts from database. **(10 Marks)**

    b. Write a Java code to build a Quiz Application by using Radio Group Class. Consider a suitable view for designing the front end. **(10 Marks)**

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