Enrollment No......................................

Faculty of Engineering / Science
End Sem (Odd) Examination Dec-2022
CS3CO32 / BC3CO37 Java Programming

Programme: B.Tech./   Branch/Specialisation: CSE / Computer
B.Sc. (CS)   Science

Duration: 3 Hrs.   **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1   i.   _____ is used to find and fix bugs in the java programs.   **1**
              (a) JVM   (b) JRE   (c) JDK   (d) JDB

      ii.   Which of the following tool is used to generate API documentation   **1**
               in HTML format from doc comments in source code?
               (a) javap tool   (b) javaw command
               (c) Javadoc tool   (d) javah command

      iii.   Which option is false about the final keyword?   **1**
               (a) A final method cannot be overridden in its subclasses
               (b) A final class cannot be extended
               (c) A final class cannot extend other classes
               (d) A final method can be inherited

      iv.   Which keyword is used for accessing the features of a package?   **1**
               (a) Package   (b) Import   (c) Extends   (d) Export

      v.   What is the value returned by function compareTo() if the invoking   **1**
               string is less than the string compared?
               (a) Zero   (b) Value less than zero
               (c) Value greater than zero   (d) None of these

      vi.   What will be the output of the following program code?   **1**
               class test{
               public static void main(String args[]){
               String s1=new String("Hello");
               String s2=new String(s1);
               System.out.println(s1= = s2);
               }}
               (a) True   (b) False   (c) 0   (d) 1

                                                                          P.T.O.

vii. Which of these keywords is not a part of exception handling? **1**
(a) Try   (b) Finally   (c) Thrown   (d) Catch

viii. What will be the order of output of the program? **1**
```
class test extends Thread
{ public void run()
{System.out.println("Run");}}
Class myclass{
public static void main(String args[])
{ test t=new test();
t.start();
System.out.println("Main");
}}
```
(a) Main Run   (b) Run Main
(c) Depend upon Program   (d) Depend upon JVM

ix. What is the name of the abstract base class for streams dealing with **1**
character input?
(a) InputStream   (b) OutputStream
(c) Reader   (d) Writer

x. Which is the container that doesn't contain title bar and menuBars **1**
but it can have other components like button,textfield etc?
(a) Window   (b) Frame   (c) Panel   (d) Container

Q.2   i.   What is type casting? Explain implicit and explicit type casting. **3**
     ii.   What are the difference between C, C++ and java? **7**
OR   iii.   Write features of java programming language. **7**

Q.3   i.   What is java package? Explain how to create and access a java **4**
package.
     ii.   Explain the various access specifiers used in java. **6**
OR   iii.   Design an interface called Shape with methods draw() and **6**
getArea(). Further design two class called Circle and Rectangle that
implements Shape to compute area of respective Shapes. Use
appropriate getter and setter methods. Write a java program for the
same.

Q.4   i.   Describe the following methods related to String: **3**
(a) replace()   (b) compareTo()   (c) charAt()

     ii.   Write a program to sort 10 Strings according to length. **7**
OR   iii.   What is StringBuffer class and StringBuilder class? What are the **7**
differences between StringBuffer and StringBuilder?

Q.5   i.   What is thread? What is the difference between a thread and a **4**
process?
     ii.   What is exception handling in java? Write program to handle **6**
number format exception.
OR   iii.   Write a program to create two threads, one thread will print odd **6**
numbers and second thread will print even numbers between 1 to
20 numbers.

Q.6   Attempt any two:
     i.   Write a program to copy the contents of file1 to file2. **5**
     ii.   What are applets? Explain in detail applet life cycle. **5**
     iii.   What is the significance of layout managers? Discuss briefly **5**
various layout managers.

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Marking Scheme
CS3CO32 / BC3CO37 Java Programming

Q.1	i.	_____ is used to find and fix bugs in the Java programs. d) JDB	1
	ii.	Which of the following tool is used to generate API documentation in HTML format from doc comments in source code? c)Javadoc tool	1
	iii.	Which option is false about the *final* keyword? c)A *final* class cannot extend other classes.	1
	iv.	Which keyword is used for accessing the features of a package? b)import	1
	v.	What is the value returned by unction compareTo() if the invoking string is less than the string compared? b) value less than zero	1

	vi.	What will be the output of the following program code?
		 class test{
		 public static void main(String args[]){
		 String s1=new String("Hello");
		 String s2=new String(s1);
		 System.out.println(s1= = s2);
		 }}
		 b)false
			1

	vii.	Which of these keywords is not a part of exception handling? c)thrown	1

	viii.	What will be the order of output of the program?
		 class test extends Thread
		 { public void run()
		 {System.out.println("Run");}}
		 Class myclass{
		 public static void main(String args[])
		 { test t=new test();
		 t.start();
		 System.out.println("Main");
			1

		}} d) Depend upon JVM	
	ix.	What is the name of the abstract base class for streams dealing with character input? c)Reader	1
	x.	Which is the container that doesn't contain title bar and menuBars but it can have other components like button,textfield etc? c) Panel	1
Q.2	i.	Define type casting (1 marks)? Explain implicit and explicit type casting.(each 1 marks)	3
	ii.	What are the difference between c,c++ and java?(At least 7 difference each 1 marks)	7
OR	iii.	Write a features of java programming language.(At least 7 features each 1 marks)	7
Q.3	i.	What is java package (2 marks)? Explain how to create and access a java package.(1 marks each)	4
	ii.	Explain the various access specifiers are used in java.(each access specifier 1.5 marks)	6
OR	iii.	Design an interface called Shape with methods draw() and getArea().Further design two class called Circle and Rectangle that implements Shape to compute area of respective Shapes. Use appropriate getter and setter methods. Write a java program for the same. Create interface and two class 2 marks, draw() and getArea() 2 marks and output of a program 2 marks	6
Q.4	i.	Describe the following methods related to String(1 marks each) a)replace() b) compareTo() c) charAt()	3
	ii.	Write a program to sort 10 String according to length?	7
OR	iii.	What is StringBuffer class (2 marks)and StringBuilder class(2 marks)? What are the difference between StringBuffer and StringBuilder? (3 marks)	7
Q.5	i.	What is thread(1 marks)? What is the difference between a thread and a process? (3 marks)	4
	ii.	What is Exception handling in java(2 marks)? Write program to handle number format exception.(4 marks)	6

OR	iii.	Write a program to create two threads, one thread will print odd numbers and second thread will print even numbers between 1 to 20 numbers.	6
Q.6		Attempt any two:	
	i.	Write a program to copy the contents of file1 to file2.	5
	ii.	What are applets? Explain in detail applet life cycle.(2 +3 marks)	5
	iii.	What is the significance of layout managers? Discuss briefly various layout managers. (2+3 marks)	5

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