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Enrollment No.....



Faculty of Engineering
End Sem (Odd) Examination Dec-2019
IT3CO15 Computer Programming-II (JAVA)

Programme: B.Tech.

Branch/Specialisation: IT

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. If an expression contains double, int, float, long, then the whole expression will be promoted into which of these data types? 1
(a) long (b) int (c) double (d) float
 - ii. Which of these is necessary to specify at time of array initialization? 1
(a) Row (b) Column
(c) Both Row and Column (d) Without Row and Column
 - iii. What would be the behaviour if this() and super() used in a method? 1
(a) Runtime error (b) Throws exception
(c) compile time error (d) Runs successfully
 - iv. What is the stored in the object obj in following lines of Java code? 1

box obj;

(a) Memory address of allocated memory of object
(b) NULL
(c) Any arbitrary pointer
(d) Garbage
 - v. Which of these methods of class StringBuffer is used to extract a substring from a string object? 1
(a) substring() (b) Substring()
(c) SubString() (d) None of these

P.T.O.

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- vi. What is the value returned by function compareTo() if the invoking string is less than the string compared? **1**
 (a) zero (b) value less than zero
 (c) value greater than zero (d) none of the mentioned
- vii. Which of these keywords must be used to monitor for exceptions? **1**
 (a) try (b) finally (c) throw (d) catch
- viii. Which function of pre defined class Thread is used to check weather current thread being checked is still running? **1**
 (a) isAlive() (b) Join() (c) isRunning() (d) Alive()
- ix. Which of these methods can be used to output a string in an applet? **1**
 (a) display() (b) print() (c) drawString() (d) transient()
- x. Where are the following four methods commonly used? **1**
 I. public void add(Component c)
 II. public void setSize(int width,int height)
 III. public void setLayout(LayoutManager m)
 IV. public void setVisible(boolean)
 (a) Graphics class (b) Component class
 (c) Both (a) & (b) (d) None of the above

Q.2

Attempt any two:

- i. Write any five difference between Java, C++ and C. **5**
- ii. Write a simple Java program and explain the compilation and execution process of Java program. **5**
- iii. Write a program to calculate average of marks of students of a single course using array. **5**

Q.3

Attempt any two:

- i. Write a program to store and display details of a student. **5**
 [Note: Make a class student and two basic methods as getData() and setData() to display and store the student information.]
- ii. Write a program for the addition of complex number using overloading. **5**
- iii. Write a short program to create and use of package in Java. **5**

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Q.4

Attempt any two:

- i. Write a Java program that uses at least five methods of String class. **5**
- ii. Write a Java program to get string and count number of words in provided string. **5**
- iii. Write a Java program to concatenate two string and compare strings with equals() and compareTo() methods in java. **5**

Q.5

Attempt any two:

- i. Write a Java program to throw user defined exception. Also handle that exception and display appropriate message for it. **5**
- ii. Explain the life cycle of a Java Thread with suitable diagram. **5**
- iii. Write a Java program to create three threads and assign the priority for each thread. Start execution of thread in program from lowest priority to highest priority. **5**
 [Note: In output switching between thread must occur as higher priority thread must suspend execution of lower priority thread.]

Q.6

Attempt any two:

- i. Briefly explain any five classes of I/O handling with their methods and uses. **5**
- ii. Write a basic program of Applet contains all the methods from initialization to termination of it. Explain in brief also. **5**
- iii. Write any five AWT classes with methods and uses of it. **5**

Marking Scheme

IT3CO15 Computer Programming-II (JAVA)

Q.1	i.	If an expression contains double, int, float, long, then the whole expression will be promoted into which of these data types? (c) double	1
	ii.	Which of these is necessary to specify at time of array initialization? (a) Row	1
	iii.	What would be the behaviour if this() and super() used in a method? (c) compile time error	1
	iv.	What is the stored in the object obj in following lines of Java code? <div style="border: 1px solid black; padding: 2px; display: inline-block;">box obj;</div>	1
	v.	Which of these methods of class StringBuffer is used to extract a substring from a string object? (a) substring()	1
	vi.	What is the value returned by function compareTo() if the invoking string is less than the string compared? (b) value less than zero	1
	vii.	Which of these keywords must be used to monitor for exceptions? (a) try	1
	viii.	Which function of pre defined class Thread is used to check weather current thread being checked is still running? (a) isAlive()	1
	ix.	Which of these methods can be used to output a string in an applet? (c) drawString()	1
	x.	Where are the following four methods commonly used? I. public void add(Component c) II. public void setSize(int width,int height) III. public void setLayout(LayoutManager m) IV. public void setVisible(boolean) (b) Component class	1

Q.2		Attempt any two:	
	i.	Write any five difference between Java, C++ and C. 1 mark for each	5 (1 mark * 5)
	ii.	Simple Java program Compilation and execution process	5 1 mark 4 marks
Q.3	iii.	Program to calculate average of marks of students of a single course using array. Stepwise marking (proper array declaration and initialization is must)	5
		Attempt any two:	
	i.	Write a program to store and display details of a student. Proper class definition Proper method definition getData() and setData() Proper object creation and calling of methods inside main()	5 2 marks 2 marks 1 mark
Q.4	ii.	Program for the addition of complex number using overloading Stepwise marking	5
	iii.	Program to create and use of package in Java. Package creation Package importing	5 2.5 marks 2.5 marks
		Attempt any two:	
	i.	Java program that uses at least five methods of String class 1 mark for each method	5 (1 mark *5)
	ii.	Java program to get string and count number of words in provided string. Stepwise marking	5
	iii.	Java program to concatenate two string and compare strings with equals() and compareTo() methods in java. Concatenation Equals CompareTo	5 1 mark 2 marks 2 marks

- Q.5 Attempt any two:
- i. Java program to throw user defined exception. Also handle that exception and display appropriate message for it **5**
Stepwise marking
 - ii. Life cycle of a Java Thread with suitable diagram. **5**
Life cycle explanation 3.5 marks
Diagram 1.5 marks
 - iii. Write a Java program to create three threads and assign the priority for each thread. Start execution of thread in program from lowest priority to highest priority. **5**
Stepwise marking
- Q.6 Attempt any two:
- i. Any five classes of I/O handling with their methods and uses. **5**
1 mark for each class (1 mark * 5)
 - ii. Program of Applet contains all the methods from initialization to termination of it. **5**
Stepwise marking up to maximum of 3.5 marks
Explain in brief also. 1.5 marks
 - iii. Any five AWT classes with methods and uses of it. **5**
1 mark for each class (1 mark * 5)
