Internal Assessment Question Paper – 1

Ramaiah Institute of Technology
(Autonomous Institute, Affiliated to VTU)
Department of CSE

Programme: B.E	**Term: Aug to Dec 2020**
Course: Object Oriented Programming	**CIE: 1**
Course Code: CS36	**Sem: 3**
Section: A, B, C	**Time: 9 to 10 am**
Max Marks: 30 **Date: 17-10-2020**	**Portions: L1 – L17**

Instructions to Candidates:
   i.   <u>Question 1 is compulsory</u> Answer any one full question from 2 or 3.
  ii.   Each Question carries 15M.

Sl#		Question	Marks	Bloom's Level	CO
1.	**a)**	Define Object Oriented Programming and List out its features.	**5**	**L1**	**1**

	b)	i. What will the resulting of attempting to compile the following program?
		public class Myclass{
		long vars;
		public void Myclass(long p) { vars=p;}
		public static void main(String args[]) {
		Myclass a,b;
		a=new Myclass();
		b=new myclass(10); }}
		
		ii. Given that Item class, how many objects and how many reference variables are created by the following Code.
		        Item i1, stuff;
		        I1= new Item();
		        Item entity=new Item();
		
		iii. Can we call a non-static method from inside a static method? Justify
			4	**L2**	**2**

	c)	Can main () method be overloaded in java? Write a java program to demonstrate Method overloading for finding area of three different solids.	**6**	**L3**	**2**
2.	**a)**	i. Can Java run on any machine? What are the requirements to run java on any computer? ii. What if the static modifier is removed from the signature of the main method?	**6**	**L2**	**1, 2**

		iii. Explain clearly about how Java handles cleaning up of unused objects.			
	b)	What is class? Describe the general from of a class. How does it accomplish data hiding?	4	L2	1
	c)	Write a java program to do the following i. Create an "Student " class that stores the name ,age and height details of a Student ii. Have a member function to accept the details of the data members of "Student". iii. Have a member function to display the details of the data members of "Student". iv. Have a static integer Variable in "Student" called 'count' which is used to count the number of student objects created. v. Have either a constructor or a static member function to access this static data member 'count' and displays the number of objects created.	5	L3	3
3.	**a)**	i. Explain the process of compiling and running java application with the help of Hello world Program ii. Why constructors do does not have any return type? Explain it with proper example. iii. Differentiate between class variable and instance variable	6	L1	1, 2
	b)	What are the types of nested classes? Illustrate how to define and use an inner class.	4	L2	1

	c)	i. Write a program to print as below using arrays.
		    Rainfall for different regions:
		    Region 0 : 56.66 30.20
		    Region 1 : 20.50
		    Region 2: 15.8 7.00 45.8 0.60
		ii. write a program to find the factorial of given number using command line arguments
			6	L3	3

Course Outcomes meant to be assessed by the IA Test:
CO1: Design and implement Python programs utilizing arithmetic expressions, repetition, file Input and Output (PO-1, 2, 3).
CO2: Define and demonstrate the use of the built-in data structures in Python (PO-1, 2, 3).