S.Y.B.Sc. (With Credits)-Regular-Semester 2012 Sem III B.Sc.23142-Paper-II : Computer Science-II (Object Oriented Programming With C++)

	ages : ie : Th	$\frac{1}{2}$ hree Hours $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	GUG/S/16/3335 Max. Marks : 50
	Note	 All questions are compulsory. All questions carry equal marks. Draw neat and labelled diagram wherever necessary. 	
1.		Either	
	a)	Describe the different styles of writing prototypes with suitable exam	ple. 5
b) Explain the manipulator endl, and setw for integer		Explain the manipulator endl, and setw for integer and real data with	suitable example. 5
		OR	
	c)	What do you mean by overloading of a function ? Explain with exam	ple. 5
	d) Write a program to print the following output using for loop.		5
		2 3	
		4 5 6	
		7 8 9 10	
2.		Either	
	a)	Write a program to implement class STUDENT having following mei) Data membersName of student	mbers - 5
		ii) Member functions Marks in two subjects To assign initial values	
		To Compute total and average marks	
		To display the data	
	b)	Explain the following terms in OOPS.i) Data abstractorii) Inheritance	5
		OR	
	c)	What are objects ? Describe the syntax for defining objects with exam	nple. 5
	d)	What is empty class ? Explain the concept of array of objects giving s	suitable example. 5
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3.	a)	Either Define a constructor and destructor. Explain the role of destructor in a	derived class. 5

b) Illustrate the overloading of unary operator ++ for a class with suitable example.

OR

5

	c)	Define a operator overloading. List rules for operator overloading.	5
	d)	What is runtime memory management ? Explain new and delete operator with example.	5
•		Either	
	a)	What is this pointer ? Explain with suitable example.	
	b)	Explain following file I/O error handling functions -i) bad ()ii) eof ()iii) fail ()iv) good ()	5
		OR	
	c)	Differentiate between pointers and references. Explain how following expressions will be evaluated $*p++$ and $++*p$.	5
•	d)	Write a program to create a data file to store names of countries and their capital and then display contents.	
		Solve all questions :	
		a) Write a program in C++ to compute a ^b where a and b are of real and integer respectively.	21/2
		b) State the difference between function definition and function prototype giving example.	21/2
		c) Describe the syntax of single inheritance in C++.	21/2
		d) What is friend function ? What are the demerits of friend function ?	21/2

4.

5.