C **Reg. No. :** | | | | | | | | | | |

Question Paper Code: 59271

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Open elective

Civil Engineering

15UCS971– PROGRAMMING WITH C++

(Common to ECE, EEE, EIE, Mechanical, IT, Chemical)

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

1. A_____ translates programs written in high-level language to the machine level language. CO1- R
   (a) compiler (b) assembler (c) debugger (d) all of the above

2. What does your class can hold? CO2- R
   (a) data (b) functions (c) both a & b (d) none of the mentioned

3. Constructors are normally used to_____and to allocate memory. CO3- R
   (a) define variables (b) allocate variables
   (c) initialize variables (d) initialize object

4. If a _____is defined in the base class, it need not be necessarily redefined in the derived class. CO2- R
   (a) member function (b) virtual function (c) static function (d) real function

5. Which of these built in data types cannot be passed as non-type template parameters _____? CO3- R
   (a) int (b) char (c) long (d) double

PART – B (5 x 3= 15 Marks)

6.	Define reference variable in C++.	CO1-U
7.	Differentiate classes and objects.	CO2- R
8.	List out the operators which cannot be overloaded.	CO3- R
9.	List out the rules for Pure virtual functions.	CO4- R
10.	Define File mode.	CO5- R

PART – C (5 x 16= 80Marks)

11.	(a)	(i) Explain Structure of C++ Program in detail**.**	CO1- U	(8)
		(ii) Explain ternary operator & logical operators with an example.	CO1- U	(8)
		Or		
	(b)	(i) Write short notes on operators in C++.	CO1- U	(8)
		(ii) Write short notes on switch, break & continue.	CO1- U	(8)
12.	(a)	Discuss about friend function and friend class with an example program.	CO2- U	(16)
		Or		
	(b)	Write a C++ program to perform inline & friend function.	CO2- U	(16)
13.	(a)	(i) Write a C++ program to perform Fibonacci series using default constructors.	CO3- App	(8)
		(ii) Explain destructors with an example.	CO3- U	(8)
		Or		
	(b)	(i) Write a C++ program for addition and subtraction of complex number using binary operator overloading with friends.	CO3- App	(8)
		(ii) Explain in detail about assignment operator overloading.	CO3- U	(8)
14.	(a)	(i) Write a C++ program to perform Publicly inherited derived class.	CO4- App	(8)
		(ii) Explain multilevel inheritance with an example.	CO4- U	(8)
		Or		

	(b)	(i) Explain in detail about pointers to objects with an example.	CO4- U	(8)
		(ii) Write a C++ program to perform virtual functions.	CO4- App	(8)
15.	(a)	(i) Discuss exception handling mechanism in detail.	CO5- U	(10)
		(ii) Write a program that demonstrates the concept of re-throwing an exception.	CO5- U	(6)
		Or		
	(b)	Describe the various methods of performing formatted & Unformatted stream I/O operations.	CO5-U	(16)