

Please check that this question paper contains 09 questions and 02 printed pages within first ten

[Total No. of Questions: 09]

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Uni. Roll No.

Program: B. Tech. (Batch 2018 onward)

Semester: 1st/2nd

Name of Subject: Object Oriented Programming using C++

Subject Code: PCIT-102

Paper ID: - 16041

Time Allowed: 03 Hours

Max. Marks: 60

NOTE:

- 1) Parts A and B are compulsory
- 2) Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
- 3) Any missing data may be assumed appropriately

Part – A

[Marks: 02 each]

Q1.

- a) Compare and contrast structured programming and object oriented programming.
- b) What is the importance of dynamic binding in the programming?
- c) Briefly explain the use of 'this' keyword in C++.
- d) How templates are useful in generic programming?
- e) Create a code segment in C++ to show the use of operator overloading.
- f) Write down the output of the following code?

```
#include <iostream>
#include <string.h>
int main()
{
    using namespace std;
    char p[]="This is a test"; cout<<sizeof(p)<<" "<<strlen(p);
}
```

Part – B

[Marks: 04 each]

- Q2. What is the need of passing objects as arguments? Discuss different ways to pass objects as arguments to a function.
- Q3. Discuss the role of access specifiers in inheritance and their visibility when they are inherited as public, private and protected.

- Q4. When do we need multiple catch blocks for a single try block? Give an example.
- Q5. Write a program in C++ to demonstrate the difference between 'break' and 'continue'.
- Q6. Write a program to create two objects using copy constructor.
- Q7. How strings are used in C++? Write a program to extract a substring from given string.

Part – C

[Marks: 12 each]

- Q8. Compare and contrast virtual functions and pure virtual functions with the help of an example.

OR

Explain various control statements available in C++ through proper examples.

- Q9. Write a program to differentiate function overloading and function overriding.

OR

Write a program in C++ to copy the contents of one file to another.
