

**Laboratory Course - IV**  
**(Based on Paper No. BC41601 and BC41602)**

<b>Semester IV</b>	<b>Subject Code: BCP41606</b>	<b>Lectures: 60</b>
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**Objectives:**

The syllabus aims in equipping students with,

- To implement OOP'S Concepts using C++
- To work with Strings and Files in C++
- To understand VB IDE
- Writing VB application with basic VB control
- To implement VB application With Advance ActiveX control
- To use VB as front-end for database connectivity and generate Data Reports

<b>Unit 1: OOP'S Using C++</b>	<b>24</b>
<ul style="list-style-type: none"> <li>• Assignment to demonstrate             <ul style="list-style-type: none"> <li>➤ Creation of Classes an objects</li> <li>➤ Working with Strings</li> <li>➤ OOP's concepts                 <ul style="list-style-type: none"> <li>▪ Inheritance (Types of Inheritance): Single, Multilevel,</li> <li>▪ Multiple, Hybrid</li> <li>▪ Polymorphism( Compile Time and Run Time Polymorphism):</li> <li>▪ Assignment on Operator overloading</li> <li>▪ Assignment on Function overloading</li> <li>▪ Assignment on Virtual function</li> </ul> </li> <li>➤ Managing I/O using Manipulators</li> <li>➤ Working with Files: insert, update and delete</li> </ul> </li> </ul>	

<b>Unit 2: Programming in Visual Basic</b>	<b>24</b>
<ul style="list-style-type: none"> <li>• Assignment to demonstrate             <ul style="list-style-type: none"> <li>➤ Use of Basic VB Control</li> <li>➤ Implementation of Advance VB Controls</li> <li>➤ Use of Graphics in VB</li> <li>➤ VB Programs using ActiveX Control</li> </ul> </li> </ul>	



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| <ul style="list-style-type: none"><li>➤ Use of VB as Front-end (using ADODC and ADODB)</li><li>➤ Implementation of Data Report, Crystal report</li></ul> |  |
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**\*Contact hours – 12 hours**

**Reference Books:**

1. Evangelos Petroustos ,*Mastering Visual Basic*, BPB publication
2. Steven Holzner, *Visual Basic 6 Programming Black Book*, Dreamtech publication
3. Gerg Perry, *Learn VB in 21 days* ,Techmedia Publication
4. E Balaguruswamy *Object Oriented Programming with C++*, 5<sup>th</sup> edition; 2006.
5. Schildt , *The Complete Reference C++*, 5<sup>th</sup> edition; 2006.

