**CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY**

**DEVANG PATEL INSTITUTE OF ADVANCE TECHNOLOGY & RESEARCH**

Department of Computer Engineering/Computer Science & Engineering/ Information Technology

**Subject Name: Object Oriented Programming with C++**

**Semester: II**

**Subject Code: CE144**

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| **No.** | **Aim of the Practical** |
| **8.** | **Find Error in the following code of a program and give explanation why these errors exist.**   1. **//This is an example of constant pointer**   **#include <iostream>**  **using namespace std;**  **int main()**  **{**  **int var1 = 35, var2 = 20;**  **int \*const ptr = &var1;**  **ptr = &var2;**  **cout << "var1= " << \*ptr;**  **return 0;**  **}**  **Error:** ptr = &var2;  **Reason:** value of constant pointer can not be change.  **Solution:** //ptr = &var2;  **PROGRAM CODE :**  #include <iostream>  using namespace std;  int main()  {  int var1 = 35, var2 = 20;  int \*const ptr = &var1;  //ptr = &var2;  cout << "var1= " << \*ptr;  return 0;  }  **OUTPUT:**    **2. //This is an example of pointer to constant**  **#include <iostream>**  **using namespace std;**  **int main()**  **{**  **int var1 = 43;**  **const int \*ptr = &var1;**  **\*ptr = 1;**  **var1 = 34;**  **cout << "var1 = " << \*ptr;**  **return 0;**  **}**  **Error:** \*ptr = 1;  **Reason:** constant  variable can not be initialized by any constant.  **Solution: //**\*ptr = 1;  **PROGRAM CODE :**  #include <iostream>  using namespace std;  int main()  {  int var1 = 43;  const int \*ptr = &var1;  //\*ptr = 1;  var1 = 34;  cout << "var1 = " << \*ptr;  return 0;  }  **OUTPUT:**    **3. //This is an example of constant pointer to a**  **#include <iostream>**  **using namespace std;**  **int main()**  **{**  **int var1 = 0, var2 = 0;**  **const int \*const ptr = &var1;**  **\*ptr = 1;**  **ptr = &var2;**  **cout << "Var1 = " << \*ptr;**  **return 0;**  **}**  **Error (1) :** \*ptr = 1;  **Error (2) :** \*ptr = &var2;  **Reason (1) :** value of constant pointer can not be change.  **Reason (2) :** constant  variable can not be initialized by any constant.  **Solution (1) :** //ptr = &var2;  **Solution (2) : //**\*ptr = 1  **PROGRAM CODE :**  #include <iostream>  using namespace std;  int main()  {  int var1 = 0, var2 = 0;  const int \*const ptr = &var1;  //\*ptr = 1; //Combination of both 1 and 2 Practical  //ptr = &var2;  cout << "Var1 = " << \*ptr;  return 0;  }  **OUTPUT:**    **CONCLUSION:** In this practical we know that value of constant pointer can not be change and also constant variable can not be initialized by any constant. |