

H.T.No:

--	--	--	--	--	--	--	--	--	--

Course Code: 201CS3T02

ADITYA ENGINEERING COLLEGE (A)

B. Tech – III Semester End Examinations Regular (AR20) – JAN 2022

OBJECT ORIENTED PROGRAMMING THROUGH C++ (Common to CSE & IT)

Time: 3 hours

Max. Marks: 70

Answer ONE question from each unit

All Questions Carry Equal Marks

All parts of the questions must be answered at one place only

UNIT – I

- | | | | | | |
|---|---|------------------------------|----|-----|------|
| 1 | a | Differentiate C and C++. | K2 | CO1 | [8M] |
| | b | State the advantages of OOP. | K2 | CO2 | [6M] |

OR

- | | | | | | |
|---|---|--|----|-----|------|
| 2 | a | Discuss the Key Concepts of OOP. | K2 | CO2 | [8M] |
| | b | Explain namespaces in C++ with an example. | K2 | CO1 | [6M] |

UNIT – II

- | | | | | | |
|---|---|--|----|-----|------|
| 3 | a | Explain the Rules for using Inline Function. | K2 | CO2 | [7M] |
| | b | Write a C++ program to demonstrate the concept of Friend function. | K3 | CO2 | [7M] |

OR

- | | | | | | |
|---|---|--|----|-----|------|
| 4 | a | Explain the Characteristics of Constructor & Destructors in C++. | K2 | CO3 | [7M] |
| | b | Write a C++ program to demonstrate Constructor and function Overloading. | K3 | CO3 | [7M] |

UNIT – III

- | | | | | | |
|---|---|--|----|-----|------|
| 5 | a | Write a C++ Program to demonstrate Operator overloading using Friend Function. | K3 | CO4 | [8M] |
| | b | Explain various rules to be followed for Overloading Operators. | K2 | CO4 | [6M] |

OR

- | | | | | | |
|---|---|--|----|-----|------|
| 6 | a | Explain various types of inheritance in C++. | K2 | CO5 | [7M] |
| | b | What is virtual function? With an example demonstrate the usage of virtual function. | K2 | CO4 | [7M] |

UNIT – IV

- | | | | | | |
|---|---|---|----|-----|------|
| 7 | a | Write a C++ program to sort an unordered list of elements using function templates. | K3 | CO6 | [7M] |
| | b | How many types of templates are there in C++? Explain with an example. | K2 | CO6 | [7M] |

OR

- | | | | | | |
|---|---|---|----|-----|------|
| 8 | a | Explain the difference between templates and macros. | K2 | CO6 | [4M] |
| | b | Define generic programming? Explain about function templates in detail. | K2 | CO6 | [8M] |

UNIT – V

- | | | | | | |
|---|---|---|----|-----|------|
| 9 | a | Define exception handling. Explain various keywords involved in C++ exception handling. | K2 | CO4 | [7M] |
| | b | Define STL. Discuss various components of STL. | K2 | CO6 | [7M] |

OR

- | | | | | | |
|----|---|---|----|-----|------|
| 10 | a | Describe about multiple catch statements for handling exceptions. | K2 | CO4 | [7M] |
| | b | Write short note on Iterator in STL. | K2 | CO6 | [7M] |
