B. C. A (2nd Semester)

030010208 – CC4-Object Oriented Programming

Assessment Policy

Assessment Code	Assessment Type	Duration of each	Occurrence	Each of marks	Weightage in CIE of 40 marks
A1	Quiz	1 hr.	1	20	04X01=04
A2	Unit Test	1.5 hrs.	1	30	06X02=12
A3	Open Book	1 hr.	2	20	04X01=04
A4	Internal Examination	3 hrs.	1	60	15X01=15
A5	Assignment	-	2	15	05X01=05

Assessment Code	Assessment Type	Duration of each	Occurrence	Each of marks	Weightage in CIE of 50 marks
A6	Unit Test (Practical)	2 hrs.	2	20	04X02=08
A7	Section Test (Practical)	3 hrs.	1	30	12X01=12
A8	Semester End exam (Practical)	3 hrs.	1	30	20X01=20
A9	Journal/Viva	-	18	15	10X01=10

Assessment Type Classification:

Assessment Code :	A1	**Weightage of Content :**	**Unit** | **(%)** 1 | 100
Assessment Type :	Quiz	**Tentative Date :**	01-01-2018
Kind of Question Format:	1) Find out error if any otherwise write the output of following codes give below. (10 out of 10) [Each of 1 marks] [10 marks] 2) Do as Directed. (05 out of 05) [Each of 2 marks] [10 marks] **Total [20 marks]**		
To measure :	Knowledge, Comprehension and Analysis		
Course Outcome :	CO1: Perceive the basic Object Oriented Programming and data structures concepts. CO7: Design, implement and test programs using object oriented concepts.		
Programme Outcome:	PO1: Ability to understand the concepts of key areas in computer science. PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society. PO5: Recognition of the need for life-long learning.		

Assessment Code :	A2	**Weightage of Content :**	**Unit** | **(%)** 1 | 20 2 | 40 3 | 40
Assessment Type :	Unit Test 1	**Tentative Date :**	15-01-2018
Kind of Question Format:	Q.1 [A] Short answer questions. (4 out of 4) [01x04=04] [B] Short answer questions. (3 out of 4) [02x03=06] Q.2 Long answer questions: [A] Practical based question. [01x05=05] **OR** [A] Practical based question. [01x05=05] [B] Practical based question. [01x05=05] **OR** [B] Practical based question. [01x05=05] Q.3 Answer the following in detail. (2 out of 3) [02x05=10] **Total [30 marks]**		
To measure :	Knowledge, Application, Comprehension and Analysis		
Course Outcome :	CO1: Perceive the basic Object Oriented Programming and data structures concepts. CO2: Utilize the object initialization and destroyation concept using constructors and destructors. CO3: Apply the concept of polymorphism and implement static (compile time) polymorphism in programs by overloading methods and operators. CO7: Design, implement and test programs using object oriented concepts.		

Programme Outcome:	PO1: Ability to understand the concepts of key areas in computer science. PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society. PO5: Recognition of the need for life-long learning.
Bonus Criteria:	# Improvement Criteria

Assessment Code :	A2	**Weightage of Content :**	**Unit** / **(%)** 1 & 2 / 10 3 & 4 / 30 5 / 60
Assessment Type :	Unit Test 2	**Tentative Date :**	27-02-2018
Kind of Question Format:	Q.1 [A] Short answer questions. (4 out of 4) [01x04=04] [B] Short answer questions. (3 out of 4) [02x03=06] Q.2 Long answer questions: [A] Practical based question. [01x05=05] **OR** [A] Practical based question. [01x05=05] [B] Practical based question. [01x05=05] **OR** [B] Practical based question. [01x05=05] Q.3 Answer the following in detail. (2 out of 3) [02x05=10] **Total [30 marks]**		
To measure :	Knowledge, Application, Comprehension and Analysis		
Course Outcome :	CO1: Perceive the basic Object Oriented Programming and data structures concepts. CO2: Utilize the object initialization and destroyation concept using constructors and destructors. CO3: Apply the concept of polymorphism and implement static (compile time) polymorphism in programs by overloading methods and operators. CO4: Apply the concept of inheritance to reduce the length of code. CO5: Apply concept of dynamic polymorphism using virtual functions, overriding functions and abstract class in programs. CO7: Design, implement and test programs using object oriented concepts.		
Programme Outcome:	PO1: Ability to understand the concepts of key areas in computer science. PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society. PO5: Recognition of the need for life-long learning.		
Bonus Criteria:	# Improvement Criteria		

Improvement Criteria – Student will get 20% marks on total obtain marks of Unit Tests as bonus if he/she is improving their performance in continues **Unit Test as per any one of the following condition**:
Suppose Unit Test-1 marks is X and Unit Test-2 marks is Y then
1) Y>X (If X<12 and Y>=12)

2) Y-X >= 5

Note: Absent in any one Unit Test is not eligible for bonus. If total marks of unit test including bonus marks, marks will more than 12 then it will only consider 12 marks.

<table>
<tr><td>Assessment Code :</td><td>A3</td><td>Weightage of Content :</td><td><table><tr><th>Unit</th><th>(%)</th></tr><tr><td>1&2</td><td>10</td></tr><tr><td>3</td><td>20</td></tr><tr><td>4</td><td>70</td></tr></table></td></tr>
<tr><td>Assessment Type :</td><td>Open Book</td><td>Tentative Date :</td><td>06-02-2018</td></tr>
<tr><td>Kind of Question Format:</td><td colspan="3">1) Analysis based question for completing the given C++ code.(2 out of 2) [each of 5 marks] [10 marks]
2) Understanding based question for finding Error and Output.(5 out of 5 [each of 2 marks] [10 marks]
Total [20 marks]</td></tr>
<tr><td>To measure :</td><td colspan="3">Knowledge, Application, Comprehension and Analysis</td></tr>
<tr><td>Course Outcome :</td><td colspan="3">CO1: Perceive the basic Object Oriented Programming and data structures concepts.
CO2: Utilize the object initialization and destroyation concept using constructors and destructors.
CO3: Apply the concept of polymorphism and implement static. (Compile time) polymorphism in programs by overloading methods and operators.
CO4: Apply the concept of inheritance to reduce the length of code.
CO7: Design, implement and test programs using object oriented concepts.</td></tr>
<tr><td>Programme Outcome:</td><td colspan="3">PO1: Ability to understand the concepts of key areas in computer science.
PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society.
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<table>
<tr><td>Assessment Code :</td><td>A4</td><td>Weightage of Content :</td><td>Unit 1 to 6</td></tr>
<tr><td>Assessment Type :</td><td>Internal Examination</td><td>Tentative Date :</td><td>27-03-2018</td></tr>
<tr><td>Kind of Question Format:</td><td colspan="3">Section-1 (from unit 1 to 3)
Q.1 [A] Short answer questions. (4 out of 4) [01x04=04]
[B] Short answer questions. (3 out of 4) [02x03=06]
Q.2 Long answer questions:
[A] Practical based question. [01x05=05]
OR
[A] Practical based question. [01x05=05]
[B] Practical based question. [01x05=05]
OR
[B] Practical based question. [01x05=05]
Q.3 Answer the following in detail. (2 out of 3) [02x05=10]
Section-2 (from unit 4 to 6)
Q.4 [A] Short answer questions. (4 out of 4) [01x04=04]</td></tr>
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	[B] Short answer questions. (3 out of 4) [02x03=06] Q.5 Long answer questions: [A] Practical based question. [01x05=05] **OR** [A] Practical based question. [01x05=05] [B] Practical based question. [01x05=05] **OR** [B] Practical based question. [01x05=05] Q.6 Answer the following in detail. (2 out of 3) [02x05=10] **Total [60 marks]**
To measure :	Knowledge, Application, Comprehension, Evaluation and Analysis
Outcome :	CO1: Perceive the basic Object Oriented Programming and data structures concepts. CO2: Utilize the object initialization and destroyation concept using constructors and destructors. CO3: Apply the concept of polymorphism and implement static. (Compile time) polymorphism in programs by overloading methods and operators. CO4: Apply the concept of inheritance to reduce the length of code. CO5: Apply concept of dynamic polymorphism using virtual functions, overriding functions and abstract class in programs. CO6: Apply I/O operations and file streams concept in programs. CO7: Design, implement and test programs using object oriented concepts.
Programme Outcome:	PO1: Ability to understand the concepts of key areas in computer science. PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society. PO5: Recognition of the need for life-long learning.

Assessment Code :	A5	**Coverage of Content :**	Unit 1-6
Assessment Type :	Assignment	**Tentative Date :**	-
Kind of Question Format:	Long Questions.		
To measure :	Knowledge, Application, Comprehension, Evaluation and Analysis		
Rules :	• A teacher shall provide at least 2 questions for assignment from each unit at the completion of the unit. • Assignment shall be assessed after completion of Unit 3 and 6 respectively.		

Course Outcome :	CO1: Perceive the basic Object Oriented Programming and data structures concepts. CO2: Utilize the object initialization and destroyation concept using constructors and destructors. CO3: Apply the concept of polymorphism and implement static. (Compile time) polymorphism in programs by overloading methods and operators. CO4: Apply the concept of inheritance to reduce the length of code. CO5: Apply concept of dynamic polymorphism using virtual functions, overriding functions and abstract class in programs. CO6: Apply I/O operations and file streams concept in programs. CO7: Design, implement and test programs using object oriented concepts.
Programme Outcome:	PO1: Ability to understand the concepts of key areas in computer science. PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society. PO5: Recognition of the need for life-long learning.

Assessment Code :	A6	**Weightage of Content :**	**Unit** / **(%)** 1 / 50 2 / 50
Assessment Type :	Unit Test 1 (Practical)	**Minimum number of practical to be certified as eligibility to appear: 6**	**Tentative Date:** 15-01-2018
Kind of Question Format:	1) Draw a class diagram for given practical problem in Q-2. [6 marks] 2) Analysis based practical problem. (2 out of 2)[each of 7 marks] [14 marks] **Total [20 marks]**		
To measure :	Knowledge, Application, Comprehension and Analysis		
Course Outcome :	CO1: Perceive the basic Object Oriented Programming and data structures concepts. CO2: Utilize the object initialization and destroyation concept using constructors and destructors. CO7: Design, implement and test programs using object oriented concepts.		
Programme Outcome:	PO1: Ability to understand the concepts of key areas in computer science. PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society. PO5: Recognition of the need for life-long learning.		

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<tr><td>Assessment Code :</td><td>A6</td><td>Weightage of Content :</td><td><table><tr><th>Unit</th><th>(%)</th></tr><tr><td>1 & 2</td><td>10</td></tr><tr><td>3</td><td>50</td></tr><tr><td>4</td><td>40</td></tr></table></td></tr>
<tr><td>Assessment Type :</td><td>Unit Test 2 (Practical)</td><td>Minimum number of practical to be certified as eligibility to appear: 10</td><td>Tentative Date: 27-02-2018</td></tr>
<tr><td>Kind of Question Format:</td><td colspan="3">1) Draw a class diagram for given practical problem in Q-2. [6- marks]
2) Analysis based practical problem.(2 out of 2)[each of 7 marks] [14 marks]
Total [20 marks]</td></tr>
<tr><td>To measure :</td><td colspan="3">Knowledge, Application, Comprehension and Analysis</td></tr>
<tr><td>Course Outcome :</td><td colspan="3">CO1: Perceive the basic Object Oriented Programming and data structures concepts.
CO2: Utilize the object initialization and destroyation concept using constructors and destructors.
CO3: Apply the concept of polymorphism and implement static (compile time) polymorphism in programs by overloading methods and operators.
CO4: Apply the concept of inheritance to reduce the length of code.
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PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society.
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<table>
<tr><td>Assessment Code :</td><td>A7</td><td>Weightage of Content :</td><td>Unit 1 to 5</td></tr>
<tr><td>Assessment Type :</td><td>Section Test</td><td>Minimum number of practical to be certified as eligibility to appear: 14</td><td>Tentative Date :
14-03-2018</td></tr>
<tr><td>Kind of Question Format:</td><td colspan="3">1) Draw a class diagram for given practical problem in Q-2 [5 marks]
2) Analysis based Practical problem. [10 marks]
3) Analysis based Practical problem. [10 marks]
4) Viva. [5 marks]
Total [30 marks]</td></tr>
<tr><td>To measure :</td><td colspan="3">Knowledge, Application, Comprehension and Analysis</td></tr>
<tr><td>Course Outcome :</td><td colspan="3">CO1: Perceive the basic Object Oriented Programming and data structures concepts.
CO2: Utilize the object initialization and destroyation concept using constructors and destructors.
CO3: Apply the concept of polymorphism and implement static (compile time) polymorphism in programs by overloading methods and operators.
CO4: Apply the concept of inheritance to reduce the length of code.
CO5: Apply concept of dynamic polymorphism using virtual functions, overriding functions and abstract class in programs.
CO6: Apply I/O operations and file streams concept in programs.</td></tr>
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	CO7: Design, implement and test programs using object oriented concepts.
Programme Outcome:	PO1: Ability to understand the concepts of key areas in computer science. PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society. PO5: Recognition of the need for life-long learning.

Assessment Code :	A8	**Weightage of Content :**	Unit 1 to 6
Assessment Type :	Semester End Exam	**Minimum number of practical to be certified as eligibility to appear: 16**	**Tentative Date :**02-04-2018
Kind of Question Format:	1) Draw a class diagram for given practical problem in Q-2 [5 marks] 2) Analysis based Practical problem. [10 marks] 3) Analysis based Practical problem. [10 marks] 4) Viva. [5 marks] **Total [30 marks]**		
To measure :	Knowledge, Application, Comprehension and Analysis		
Outcome :	CO1: Perceive the basic Object Oriented Programming and data structures concepts. CO2: Utilize the object initialization and destroyation concept using constructors and destructors. CO3: Apply the concept of polymorphism and implement static (compile time) polymorphism in programs by overloading methods and operators. CO4: Apply the concept of inheritance to reduce the length of code. CO5: Apply concept of dynamic polymorphism using virtual functions, overriding functions and abstract class in programs. CO6: Apply I/O operations and file streams concept in programs. CO7: Design, implement and test programs using object oriented concepts.		
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UFM Policy:

- If two or more submitted papers are too similar for coincidence, a penalty shall be imposed that shall usually be the same for the student who did the original as for the one copying from it.
- Any ascertained fact of breaking institute policy shall be associated with one or all of the following: (i) zero marks for the work; (ii) report to the programme coordinator; (iii) report to the Director.