

# B.V.Patel Institute of Computer Science, UTU

## B.C.A (5<sup>th</sup> Semester)

030010515: DSE7 Introduction to Software Engineering

### Assessment Policy

#### Theory Assessment Parameters

Assessment Code	Type	Duration	Frequency	Number of questions	Marks of each	Weightage in CIE of 40 marks	Remark
A1	Quiz	1 Hour	1	1	20	7X1=7	2 <sup>nd</sup> week of July
A2	Unit Test	1.5 Hours	1	3	30	10X1=10	1 <sup>st</sup> week of August
A3	Internal Examination	3 Hours	1	6	60	17X1=17	End of semester
A4	Presentation & Viva	30 Minutes	1	1	30	6X1=6	During semester

#### Practical Assessment Parameters

Assessment Code	Assessment Type	Duration of each	Frequency	Marks of each	Weightage in CIE of 50 marks	Remark
A5	Unit Test	2 Hour	1	20	10 X 1 = 10	During last week of July
A6	Section Test	2.5 Hours	1	25	15 X 1 = 15	During 2 <sup>nd</sup> week of September
A7	Semester End exam	3 Hours	1	30	20 X 1 = 20	During last week of October
A8	Project	-	1	150	5 X 1 = 5	-

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## Assessment Type Classification:

<b>Assessment Code :</b>	A1	<b>Weightage of Content :</b>	<b>Unit</b>	<b>(%)</b>
			1	60%
			2	40%
<b>Assessment Type:</b>	Quiz	<b>Tentative Date :</b>	4th week of July	
<b>Kind of Question Format:</b>	Q-1 : Multiple Choice Questions. [ 01 x 10 =10 Marks] Q-2: Short Question Answer. [ 02 x 05 =10 Marks]			
<b>To measure:</b>	Knowledge			
<b>Course Outcome:</b>	CO1: Comprehend the basic concepts and importance of traditional and object-oriented software engineering. CO2: Compare and contrast conventional and object-oriented software process models with its applicability.			
<b>Programme Outcome:</b>	PO1: Proficiency in and ability to identify problems related to computer science as well as design and apply computational knowledge to solve them.			

<b>Assessment Code :</b>	A2	<b>Weightage of Content :</b>	<b>Unit</b>	<b>(%)</b>
			1	25%
			2	30%
			3	45%
<b>Assessment Type :</b>	Unit Test	<b>Tentative Date :</b>	1 <sup>st</sup> week of August	
<b>Kind of Question Format:</b>	Q-1(A): Short answers questions of 1 mark each. (4 questions, marks will be 1 X 4 = 4 marks) (B): Short answers questions of 2 marks each. (3 out of 4 questions, marks will be 2 X 3 = 6 marks) Q-2 Analytical based answers questions. (2 out of 4 questions, marks will be 5 X 2 = 10 marks) Q-3 Descriptive answers questions. (2 out of 3 questions, marks will be 5 X 2 = 10).			
<b>To measure:</b>	Knowledge and analytic skill			
<b>Course Outcome:</b>	CO1: Comprehend the basic concepts and importance of traditional and object-oriented software engineering. CO2: Compare and contrast conventional and object-oriented software process models with its applicability. CO3: Recognize the prominence of V-model for development of quality software.			
<b>Programme Outcome:</b>	PO1: Proficiency in and ability to identify problems related to computer science as well as design and apply computational knowledge to solve them. PO4: Recognition of the need for and ability towards life-long learning. PO5: Knowledge of programming languages, database systems, operating systems, software engineering, Web & Mobile technology and relevant modern issues.			

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<b>Assessment Code :</b>	A3	<b>Weightage of Content :</b>	<b>Unit</b>	<b>(%)</b>
			All Unit	100%
<b>Assessment Type :</b>	Internal Examination	<b>Tentative Date :</b>	At the end of semester.	
<b>Kind of Question Format:</b>	<p>Q-1(A): Short answers questions of 1 mark each. (4 questions, marks will be <math>1 \times 4 = 4</math> marks)</p> <p>(B): Short answers questions of 2 marks each. (3 out of 4 questions, marks will be <math>2 \times 3 = 6</math> marks).</p> <p>Q-2 Analytical based answers questions. (2 out of 4 questions, marks will be <math>5 \times 2 = 10</math> marks)</p> <p>Q-3 Descriptive answers questions. (2 out of 3 questions, marks will be <math>5 \times 2 = 10</math>).</p> <p>Q-4(A): Short answers questions of 1 mark each. (4 questions, marks will be <math>1 \times 4 = 4</math> marks)</p> <p>(B): Short answers questions of 2 marks each. (3 out of 4 questions, marks will be <math>2 \times 3 = 6</math> marks).</p> <p>Q-5 Analytical based answers questions. (2 out of 4 questions, marks will be <math>5 \times 2 = 10</math> marks)</p> <p>Q-6 Descriptive answers questions. (2 out of 3 questions, marks will be <math>5 \times 2 = 10</math>).</p>			
<b>To measure:</b>	Knowledge and analytic skill			
<b>Course Outcome :</b>	<p>C01: Comprehend the basic concepts and importance of traditional and object-oriented software engineering.</p> <p>C02: Compare and contrast conventional and object-oriented software process models with its applicability.</p> <p>C03: Recognize the prominence of V-model for development of quality software.</p> <p>C04: Identify needs and significance of requirements engineering using analysis modelling, data and object oriented modelling concepts.</p> <p>C05: Identify and design UML diagrams for a given system.</p> <p>C06: Classify and construct architectural, component level and user interface design for a given system.</p> <p>C07: Comprehend the latest software engineering development trends.</p>			
<b>Programme Outcome:</b>	<p>PO1: Proficiency in and ability to identify problems related to computer science as well as design and apply computational knowledge to solve them.</p> <p>PO4: Recognition of the need for and ability towards life-long learning.</p> <p>PO5: Knowledge of programming languages, database systems, operating systems, software engineering, Web &amp; Mobile technology and relevant modern issues.</p>			

<b>Assessment Code :</b>	A4	<b>Weightage of Content :</b>	<b>Unit</b>	<b>(%)</b>
			All units	100 %
<b>Assessment</b>	Self-Creation Parameter	<b>Tentative Date :</b>	-	

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<b>Type :</b>			
<b>Kind of Question Format:</b>	Presentation & viva		
<b>To measure:</b>	Knowledge and analytic skill.		
<b>Course Outcome:</b>	<p>CO1: Comprehend the basic concepts and importance of traditional and object-oriented software engineering.</p> <p>CO2: Compare and contrast conventional and object-oriented software process models with its applicability.</p> <p>CO3: Recognize the prominence of V-model for development of quality software.</p> <p>CO4: Identify needs and significance of requirements engineering using analysis modelling, data and object-oriented modelling concepts.</p> <p>CO5: Identify and design UML diagrams for a given system.</p> <p>CO6: Classify and construct architectural, component level and user interface design for a given system.</p> <p>CO7: Comprehend the latest software engineering development trends.</p>		
<b>Programme Outcome:</b>	<p>PO5: Knowledge of programming languages, database systems, operating systems, software engineering, Web &amp; Mobile technology and relevant modern issues.</p> <p>PO6: Ability to demonstrate the use of modern tools, models and languages to solve problems related to software development.</p> <p>PO7: Ability to communicate and present knowledge effectively.</p>		
<b>Rules:</b>	<ul style="list-style-type: none"> <li>• Group shall be formed by subject teacher according to Enrollment number(Maximum 3 students in one group)</li> <li>• Topics of presentation shall be selected by students related to subject in 2<sup>nd</sup> week of semester.</li> <li>• Time duration shall be minimum 15 minutes.</li> <li>• Evolution will start after completion of unit 3.</li> <li>• Evolution will be done based on following parameters:</li> <li>• Total Marks:30 Presentation and Content/Demonstration: 25 Viva-5</li> </ul>		

<b>Assessment Code :</b>	A5	<b>Weightage of Content :</b>	<b>Unit</b>	<b>(%)</b>
			1	10
			2	20
			3	70
<b>Assessment Type:</b>	Unit Test (Practical)		<b>Tentative Date :</b> 1st week of August	
<b>Kind of Question Format:</b>	Q-1: Scenario based		[20 Marks]	
<b>To measure:</b>	Knowledge and analytic skill			
<b>Course Outcome:</b>	<p>CO1: Comprehend the basic concepts and importance of traditional and object-oriented software engineering.</p> <p>CO2: Compare and contrast conventional and object-oriented software process models with its applicability.</p> <p>CO3: Recognize the prominence of V-model for development of quality software.</p> <p>CO4: Identify needs and significance of requirements engineering using analysis modelling, data and object oriented modelling concepts.</p>			
<b>Programme Outcome:</b>	PO2: Ability to design, develop, test and maintain system, component, product or process as per needs and specification.			

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<b>Rules:</b>	<ul style="list-style-type: none"> <li>Viva shall be taken by the project guide as a part of evaluation of Unit Test-1.</li> <li>Out of 20 marks of Unit Test-1, 5 marks shall comprise of Viva.</li> </ul>
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<b>Assessment Code:</b>	A6	<b>Weightage of Content :</b>	<b>Unit</b>	<b>(%)</b>
			1	10
			2	20
			3	70
<b>Assessment Type:</b>	Section Test(Practical)		<b>Tentative Date:</b> 2 <sup>nd</sup> week of September	
<b>Kind of Question Format:</b>	Q-1: Scenario based		[20 Marks]	
<b>To measure:</b>	Knowledge and analytic skill			
<b>Course Outcome:</b>	CO1: Comprehend the basic concepts and importance of traditional and object-oriented software engineering. CO2: Compare and contrast conventional and object-oriented software process models with its applicability. CO3: Recognize the prominence of V-model for development of quality software. CO4: Identify needs and significance of requirements engineering using analysis modelling, data and object oriented modelling concepts.			
<b>Programme Outcome:</b>	PO2: Ability to design, develop, test and maintain system, component, product or process as per needs and specification.			
<b>Rules:</b>	<ul style="list-style-type: none"> <li>Viva shall be taken by the project guide as a part of evaluation of Unit Test-1.</li> <li>Out of 20 marks of Unit Test-1, 5 marks shall comprise of Viva.</li> </ul>			

<b>Assessment Code:</b>	A7	<b>Weightage of Content :</b>	<b>Unit</b>	<b>(%)</b>
			All units	100 %
<b>Assessment Type:</b>	Semester End Exam(Practical)		<b>Tentative Date:</b> At the end of semester.	
<b>Kind of Question Format:</b>	Q-1: Scenario based		[23 Marks]	
	Q-2: Viva.		[07 Marks]	
<b>To measure:</b>	Knowledge and analytic skill.			
<b>Course Outcome:</b>	CO1: Comprehend the basic concepts and importance of traditional and object-oriented software engineering. CO2: Compare and contrast conventional and object-oriented software process models with its applicability. CO3: Recognize the prominence of V-model for development of quality software. CO4: Identify needs and significance of requirements engineering using analysis modelling, data and object oriented modelling concepts. CO5: Identify and design UML diagrams for a given system. CO6: Classify and construct architectural, component level and user interface design for a given system. CO7: Comprehend the latest software engineering development trends.			

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<b>Programme Outcome:</b>	<p>PO2: Ability to design, develop, test and maintain system, component, product or process as per needs and specification.</p> <p>PO5: Knowledge of programming languages, database systems, operating systems, software engineering, Web &amp; Mobile technology and relevant modern issues.</p> <p>PO6: Ability to demonstrate the use of modern tools, models and languages to solve problems related to software development.</p>
<b>Rules:</b>	<ul style="list-style-type: none"> <li>The document shall be certificated by the <b>Project guide and Course teacher</b> and only that students will be allowed to seat for Internal.</li> <li>Out of 30 marks of Internal, 7 marks of Viva which will be conducted by project guide during submission of SRS document.</li> </ul>

<b>Assessment Code:</b>	A8	<b>Weightage of Content :</b>	<b>Unit</b>	<b>(%)</b>
			All Unit	100 %
<b>Assessment Type:</b>	Project		During Semester	
<b>Kind of Question Format:</b>	Document and Presentation		[20 Marks]	
<b>To measure:</b>	Knowledge and analytic skill			
<b>Course Outcome:</b>	<p>CO1: Comprehend the basic concepts and importance of traditional and object-oriented software engineering.</p> <p>CO2: Compare and contrast conventional and object-oriented software process models with its applicability.</p> <p>CO3: Recognize the prominence of V-model for development of quality software.</p> <p>CO4: Identify needs and significance of requirements engineering using analysis modelling, data and object oriented modelling concepts.</p> <p>CO5: Identify and design UML diagrams for a given system.</p> <p>CO6: Classify and construct architectural, component level and user interface design for a given system.</p> <p>CO7: Comprehend the latest software engineering development trends.</p>			
<b>Programme Outcome:</b>	PO2: Ability to design, develop, test and maintain system, component, product or process as per needs and specification.			
<b>Rules:</b>	<ul style="list-style-type: none"> <li>Group shall be formed by students (Maximum 3 students allows in one group).</li> <li>Project title search by students and confirm with project guide.</li> <li>Divide the students amongst lab faculties to maintain the track of students on daily basis.</li> <li>First students need to understand overall system and also need to identify functionalities. Minimum 10 minutes presentation is allowed followed by Question-Answer session. This will be conducted after completion of first month</li> <li>In first presentation the marks shall be divided as: (5 marks presentation skill and team work 10 marks for system clarity 5 marks for identification of missing/incomplete component 5 marks viva)</li> <li>Second critical analysis, students need to design UML diagrams and interface design. Minimum 15 minutes of presentation is allowed which will be followed by question answer session.</li> <li>In second presentation the marks shall be divided as: (5 marks presentation skill +15 marks for improved UML diagrams + 5 marks viva).</li> </ul>			

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	<ul style="list-style-type: none"><li>• At the end the students need to submit the report consisting of corrected/improved system specification</li><li>• The whole project document shall be certificated by the <b>Course teacher</b> and only those students will be allowed to seat for external.</li></ul>
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## **Bonus Policy:**

If a student appears in all the CIE and passes in at least two CIE parameters (not included self-creation parameter), then two marks bonus shall be given to them in final internal marks such that internal marks does not exceeds 39. If student gets 38 marks in internal then one-mark bonus will be given to them.

## **UFM policy:**

If two or more submitted practical assignments 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 Program Coordinator; (iii) report to the Director.