Five years Integrated M.Sc. Mathematics (Semester - 4)
Assessment Policy
060090401: CC8 Advanced Real Analysis

Assessment Code	Assessment Type	Duration of each	Occurrence	Each of marks	Weightage in CIE of 40 marks	Remarks
A1	Unit Test	90 minutes	2	30	7 x 2 = 14	Unit Test – 1: After completion of Unit-1 and Sub Units 2.1, 2.2, 2.3 and 2.4 Unit Test – 2: After completion of Sub Units 2.5, 2.6, 2.7 and Unit – 3.
A2	Internal Examination	180 minutes	1	60	14 x 1 = 14	After completion of Unit-4, which covers all units.
A3	Assignment	10 days	4	10	1.25 x 4 = 5	Assignment - 1 : After completion of Unit-1 Assignment - 2 : After completion of Unit-2 Assignment - 3 : After completion of Unit-3 Assignment - 4 : After completion of Unit-4
A4	Presentation & Viva	30 minutes	1	20	7 x 1 = 7	Theorems of Advanced Real Analysis

Assessment Type Classification:

Assessment Code :	A1	Coverage of Content :	Unit Test – 1: Covers Unit-1 and Sub Units 2.1, 2.2, 2.3 and 2.4 Unit Test – 2: Covers Sub Units 2.5, 2.6, 2.7, 2.8, 2.9 and Unit – 3.
Assessment Type :	Unit Test-1 and Unit Test -2	Tentative Date :	Unit Test – 1: 21/01/2019 Unit Test – 2: 08/03/2019
Kind of Question Format:	Q1(A) Answer the following. [1 X 2 = 2] Q1(B) Answer the following. (Any 1) [1 X 3 = 3] Q1(C) Answer the following. (Any 2) [2 X 5 = 10]		

	Q2(A) Answer the following. [1 X 2 = 2] Q2(B) Answer the following. (Any 1) [1 X 3 = 3] Q2(C) Answer the following. (Any 2) [2 X 5 = 10]
Assessment :	Formative

Assessment Code :	A2	**Coverage of Content :**	All Units
Assessment Type :	Internal Examination	**Tentative Date :**	16/04/2019
Kind of Question Format:	Same as University format		
Assessment :	Summative		

Assessment Code :	A3	**Coverage of Content :**	Assignment - 1 : After completion of Unit-1 Assignment - 2 : After completion of Unit-2 Assignment - 3 : After completion of Unit-3 Assignment - 4 : After completion of Unit-4
Assessment Type :	Assignment	**Tentative Date :**	-
Kind of Question Format:	1. At least 20 questions from each unit will be given as assignment. 2. Questions will be given in every tutorial lecture. 3. 10 days will be given for assignment submission. 4. Zero marks will be given for submission after given deadline		
Assessment :	Formative		

Assessment Code :	A4	**Coverage of Content :**	All Units
Assessment Type :	Presentation	**Tentative Date :**	25/03/2019
Kind of Question Format:	1. Topic should be given from the syllabus before 20 days of the presentation. 2. 15 minutes should be given for presentation 3. Viva should be taken after completion of presentation 4. Zero marks will be given, if students remain absent on the day of presentation without taking prior permission of leave or students not give the presentation of given topic.		
Assessment :	Summative		

Course outcomes:

Upon completion of the course, students shall be able to

CO1: acquainted with the ideas of the total variation and to be able to deal with functions of bounded variation.

CO2: Define several standard examples of metric spaces and prove simple results related to them and ability to demonstrate an understanding of notions such as openness, closedness, continuity, completeness, equivalence of metrics and compactness as applied in the context of general and specific metric spaces.

CO3: Define convergence for sequences in a metric space and determine whether a given sequence in a metric space converges and state the definition of continuity of a function between two metric spaces.

CO4: Provide a first principles construction of the Riemann Integral and Demonstrate the properties of Riemann integrable functions.

CO5: Construct the Lebesgue integral and understand properties of the Lebesgue integral.

CO6: Distinguish between countable and uncountable sets, as well as the properties of Lebesgue measure, to identify and utilize the Monotone Convergence Theorem.

Programme Outcomes (PO)

PO 1: Knowledge

Provides knowledge about the fundamentals of pure, applied and computing mathematics and its applications to students that creates the opportunities in industries and research centers.

PO 2: Core Competence

Creates competency in science and mathematics to formulate, analyses and solve problem and/or also to pursue advanced study or research.

PO 3: Breadth

Trains students having good knowledge in unearth core of academia and industry by the roots of mathematics.

PO 4: Evaluation

Imparts in students to raise trial and error based curiosity and problem solving functionality with research based advanced tutorial for higher level decision makings tools.

Assessment Code	Course Outcomes						Programme Outcomes			
	CO1	CO2	CO3	CO4	CO5	CO6	PO1	PO2	PO3	PO4
A1	✓	✓	✓	✓			✓	✓		✓
A2	✓	✓	✓	✓	✓	✓	✓	✓	✓	
A3	✓	✓	✓	✓	✓	✓		✓		✓
A4	✓	✓	✓	✓	✓	✓	✓		✓	✓