



	In Sem Examination-II Summer 2024		
	Exam Seat No.:		
	Academic Year: 2023-2024	Semester: II	
	Name of Programme: F. Y. M.Tech (Structural Engg.)	Pattern: 2022	
	Name of Course: Theory of Plates and Shells	Course Code: CIV225107	
	Max. Marks: 30	Duration: 1 hr	

	<p><b>Instructions:</b> Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.</p> <ol style="list-style-type: none"><li>1. This question paper contains 1 page(s).</li><li>2. Answer to each new question is to be started on a new page.</li><li>3. Assume suitable data wherever required, but justify it.</li><li>4. Draw the neat labelled diagrams, wherever necessary.</li><li>5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.</li></ol>	
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**Question No. 1 Attempt following Question**

- a) Discuss the Thin and Thick plate bending. (5) CO1

**OR**

- b) State the assumptions in the small deflection theory of thin plate. (5) CO1

- c) Derive the Equations of the Stress and Moment resultant of the Rectangular Plate. (10) CO1

**OR**

- d) Examine Navier's resolution for a simply supported rectangular plate under a Point Load (UDL). (10) CO1

**Question No. 2 Attempt following Question**

- a) Discuss the difference between the Classical plate theory and First-Order shear deformation Theory. (5) CO2

**OR**

- b) State the assumptions of Levy's plate theory. (5) CO2

- c) Explore Levy's solution for a simply supported rectangular plate exposed to a UDL. (10) CO2

**OR**

- d) Discuss Levy's solution of simply supported rectangular plate subjected to LVL. (10) CO2

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