

Hall Ticket No.

Course Code: U23MA101



LORDS INSTITUTE OF ENGINEERING AND TECHNOLOGY

(UGC Autonomous)

Approved by AICTE | Recognized by Government of Telangana | Affiliated to Osmania University
Accredited by NBA | Accredited with 'A' grade by NAAC | Accredited by NABL

B.E-I SEMESTER, CONTINUOUS INTERNAL EVALUATION-II, January, 2024

Mathematics-1

Common to: CE, CSE, MECH & CSD

Time: 60 min.

Date: 29-01-2024 FN

Max. Marks :20

Instructions to the Students:

- Question No. 1 is Compulsory
- Answer any 2 Questions from Q.No.2 –Q.No.4

				CO	BTL
1.	a.	Find the maxima and minima of the function $f(x) = x^5 - 3x^4 + 5$	2	CO3	BTL2
	b.	Evaluate $\int_0^1 \int_x^{\sqrt{x}} (x^2 + y^2) dy dx$	2	CO4	BTL3
	c.	State Green's theorem on a plane.	2	CO5	BTL1
2.		Discuss the maxima and minima of $f(x, y) = 4x^2 + 2y^2 + 4xy - 10x - 2y - 3.$	7	CO3	BTL2
3.		Evaluate $\int_0^4 \int_0^{x^2} e^{y/x} dy dx$	7	CO4	BTL3
4.		Find the angle between the surfaces $x^2 + y^2 + z^2 = 9, z + 3 = x^2 + y^2$ at $(-2, 1, 2)$	7	CO5	BTL2

Bloom's Taxonomy Levels (BTL)

I. Remembering	II. Understanding	III. Applying	IV. Analyzing	V. Evaluating	VI. Creating
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