



WALCHAND COLLEGE OF ENGINEERING

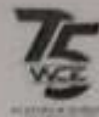
(Government Aided Autonomous Institute)

Visharambag, Sangli - 416415

First Year B.Tech. All Branch

MSE, EVEN SEMESTER, AY 2023-24

Engineering Mathematics-II (6MA102)



MSE

PRN: _____

Day & Date: Monday, 26/02/2024 Time: 11.30 am to 1.00 pm

Max Marks: **30**

IMP: Verify that you have received question papers with correct course code, branch etc.

Instructions

- All questions are compulsory.
- Writing question number on answer book is compulsory otherwise, answers may not be assessed.
- Assume suitable data wherever necessary.
- Figures to the right of question text indicate full marks.
- Mobile phones, smart gadgets and programmable calculators are strictly prohibited.
- Except PRN, anything else writing on question paper is not allowed.
- Exchange/Sharing of stationery, calculator etc. not allowed.

Text on the right of marks indicates course outcomes (Only for faculty use)

		Marks	
1	A) Trace the curve: $r = a(1 + \sin \theta)$	5	CO2
	B) Evaluate using Beta-Gamma function: $\int_0^{\pi/2} \sqrt{\tan \theta} d\theta$	4	CO1
	C) Change the order of integration and Evaluate: $\int_0^1 \int_{x^2}^x xy dy dx$	4	CO2
2	A) Trace the curve: $xy^2 = a^2(a - x)$	6	CO2
	B) Evaluate: $\int_0^{\pi/2} \int_0^1 r^4 \sin^2 \theta dr d\theta$	4	CO2
	C) Evaluate: $\int_0^\infty e^{-x^2} dx$	3	CO1
	D) Solve: $\int_0^2 x^2 (2 - x)^{13} dx$	4	CO1

..... End of question paper