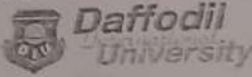


Set: B



Class Test

Student ID: 261-15-.....Program: B. Sc. in CSE

Course Code: MAT102 Course Title: Mathematics-II

Semester: Summer

Year: 2026

Section: 71_A

Date: 23.06.2026

Class Test No.: 02 Marks Obtained: Signature of the Course Teacher:

Total Marks: 15

Time: 30 minutes

1.	Determine the value of $\int_0^{\pi/2} \frac{\sin \theta}{\sqrt[4]{\cos^3 \theta}} d\theta$.	[5]
2.	By using techniques involving the Beta function, find the exact value of $\int_0^1 \frac{1}{\sqrt[3]{x^2 - x^3}} dx$.	[5]
3.	Evaluate: $\int_1^e \int_1^x \int_0^{\sqrt{xy}} \frac{z}{x} dz dy dx$.	[5]

$\pi/2$

$\pi/2$

$\pi/2$