Bahria University
Discovering Knowledge

Course Title:MVC

BSCS(3rd Semester)

Department of Computer Science
Bahria University, Lahore Campus

Quiz#4(A)

Date: Week 11, 02 June 2023

Name: _____ Roll No: _____

Evaluation of CLO	**Question Number**	**Marks**	**Obtained Marks**
CLO3: CLO statement Analyze the given problems and apply integrals to compute physical quantities like area/volume.	1	5	
	2	5	
Total Marks		**10**	

Question 1. If $\vec{F} = 3xy\hat{\imath} - y^2\hat{\jmath}$, evaluate $\int_C \vec{F}.d\vec{r}$ where C is the curve in the xy-plane, $y = 2x^2$ from (0,0) to (1,2).

Question 2. Evaluate $\iint_S \vec{F} \cdot \vec{n}\, dS$ for $\vec{F} = xy\hat{\imath} + yz\hat{\jmath} + zx\hat{k}$ where S is the part of the paraboloid $z = 4 - x^2 - y^2$, that lies above the square $0 \le x \le 1,\ 0 \le y \le 1$ and has upward orientation.