**Virtual University of Pakistan** Spring 2023
**Department of Mathematics** Assignment 2
Section: Dr Imran Talib
Marks 10

# MTH101: Calculus and Analytical Geometry

Instructions:

- Lectures 19-28 are included in Assignment 2.
- Assignment 2 is due on July 12, 2023.
- The course is segmented into sections, each of which is supervised by a different faculty member. Information regarding the section incharge can be found in the course information section on the LMS.
- Only students in Dr. Imran Talib's section are required to complete this Assignment.
- Students in other sections will be completing a different assignment and are strictly prohibited from solving this one.
- The assignment file can be downloaded from the announcement section of the course. It is important to note that students can only view the announcements relevant to their respective sections.
- Submitting a copied assignment will result in a zero grade. Furthermore, if any student submits a solution file that is not relevant to their section, they will receive a zero grade.
- The solution file of assignment 2 will be directly submitted on LMS assignment interface as per usual practice.

**Question 1**: Find the critical points of $f(t) = t^{\frac{3}{5}}(4-t)$.

**Question 2**: Find $\int t^3 \cos(t^4+2)dt$ by **Substitution Rule**.