MAT 101: Differential and Integral Calculus (Sec-4)
Department of Computer Science and Engineering
University of Liberal Arts Bangladesh

Course Title: Differential and Integral Calculus   **Course Code:** MAT 101
Total Marks: 20   **Time:** 20 minutes

Name: _____   **ID:** _____

1. Find the relative extrema of $f(x) = 3x^5 - 5x^3$ using the Second Derivative Test and First   12
   Derivative Test.

2. Find the two x-intercepts of the function $f(x) = x^2 - 5x + 4$ and confirm that $f'(c) = 0$ at   8
some point c between those intercepts.