Term Test-II

Course: MAT 103BM Time:35 mins Marks: 10

Q1. State Leibnitz's theorem. If $y = \text{a}\cos(lnx) + bsin(lnx)$, then show that

$x^2y_{n+2} + (2n+1)xy_{n+1} + (n^2 + 1)y_n = 0.$ 6

Q2. Define local and absolute extreme values. Find the absolute extrema of $f(x) = x^{2/3}$ on [-2, 3]. 4