On multiple Bernoulli polynomials and multiple L-functions of root systems.

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We define multiple zeta and L-functions of root systems, which are multi-variable Witten zeta and L-functions, including ordinary multiple zeta and L-functions. We also define multiple Bernoulli polynomials, by which we describe the values of these functions at positive integers. This description is a certain generalization of what is called the Witten volume formula which was formulated by Zagier. Additionally, this can be regarded as a multiple version of the classical formula for the Dirichlet L-function at positive integers.