Herbrand Interpretation $(\mathcal{D}, \mathcal{I})$:

I. 1. $\mathcal{D}$ is a set of ground terms (Herbrand universe) i.e. $T(\Sigma)$, we assume at least one constant in Σ, if there is no constant, add one!

2. $\mathcal{I}$:

i. $a \mapsto a$ $(a^I := a)$

ii. $f \mapsto f^I : (t_1, \ldots, t_n) \mapsto f(t_1, \ldots, t_n)$

iii. $P \mapsto P^I$ – a subset of D^n

II. Valuation is just a ground substitution.

III. Truth is defined in the usual way.