

# Task-Specific Decoding Recommendations (2025)

Deterministic Tasks  
Creative Tasks

Task	Recommended Method	Parameters	Why?
Machine Translation	Beam Search	width=3-5	Deterministic, quality critical
Factual Q&A	Greedy / Low Temp	T=0.1-0.3	Single correct answer needed
Summarization	Beam Search	width=4	Balance coverage + conciseness
Code Generation	Greedy	T=0	Syntax errors costly
Creative Writing	Nucleus / Contrastive	p=0.9, $\alpha$ =0.6	Diverse but coherent
Dialogue Systems	Nucleus	p=0.85-0.95	Natural variation needed
Story Generation	Contrastive	$\alpha$ =0.5-0.7	Avoid repetition in long text
Long-form Articles	Contrastive	$\alpha$ =0.6, p=0.9	Degeneration prevention