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Task Type	Model	Classification	Observation	Reason (Training + Architecture)
Text Generation	BERT	Failure	Cannot generate meaningful text	Encoder-only model trained for masked language modeling; lacks a decoder for next-token generation
Text Generation	RoBERTa	Failure	Produces incoherent or no output	Encoder-only architecture similar to BERT; not designed for sequential text generation
Text Generation	BART	Success	Generates fluent and relevant text	Encoder-decoder architecture with an autoregressive decoder trained for sequence-to-sequence tasks
Masked Language Modeling	BERT	Success	Correctly predicts words like “create”	Trained specifically on MLM using a bidirectional encoder that uses full context
Masked Language Modeling	RoBERTa	Success	Produces accurate masked word predictions	Improved MLM training strategy with optimized bidirectional attention
Masked Language Modeling	BART	Partial / Moderate Success	Predicts missing words with lower accuracy	Not primarily trained for MLM; encoder-decoder design is less optimal for masked prediction
Question Answering	BERT	Partial / Poor	Extracts relevant spans inconsistently	Base model not fine-tuned for QA; lacks task-specific QA head

Question Answering	RoBERTa	Partial / Poor	Answers vary in accuracy	Requires fine-tuning on QA datasets for reliable span extraction
Question Answering	BART	Moderate	Generates answers instead of extracting	Generative encoder-decoder model produces sequences rather than extracting answer spans