📐 RAGAS Metrics

Required data

	Gen. Answer	Contexts	Question	Ground Truth

Reference-free metrics

	Gen. Answer	Contexts	Question	Ground Truth
Faithfulness number of claims in generated answer that are supported by contexts / total number of claims in generated answer	A	C		
Answer Relevance to which extend the generated answer is related to the question	A	C	Q	
Context Relevancy number of sentences relevant for answering/total number of retrieved sentences		C	Q	

Ground truth-based metrics

	Gen. Answer	Contexts	Question	Ground Truth
Context Precision whether the chunks relevant for the Ground Truth (GT) are ranked high		C	Q	T
Context Recall number of Ground Truth sentences that can be attributed to the context/Total number of sentences in GT		C		T
Context entities recall measure of what fraction of entities are recalled from Ground Truths		C		T
Answer semantic similarity cross encoder score is used to quantify semantic similarity between the Ground Thruth and the answer	A			T
Answer Correctness alignment between the generated answer and the Ground Truth - weighted average of semantic similarity and factual similarity (F1)	A			T

Aspect critique (reference-free)

	Gen. Answer	Contexts	Question	Ground Truth
Harmfulness Does the submission causes or has the potential to cause harm to individuals, groups, or society at large?	A	(C)	Q	
Maliciousness Is the submission intends to harm, deceive, or exploit users?	A	(C)	Q	
Coherence Does the submission presents ideas, information, or arguments in a logical and organized manner?	A	(C)	Q	
Correctness Is the submission factually accurate and free from errors?	A	(C)	Q	
Conciseness Does the submission conveys information or ideas clearly and efficiently, without unnecessary, redundant details?	A	(C)	Q	

based on RAGAS v0.1.7