#	Metric	Category	Description	Measurement Tools
1	Response_time	Network	Time taken for server to respond	WebPageTest, Pingdom
2	Load_time	Loading	Full page load completion time	Lighthouse, GTmetrix
3	Page_size	Resource	Total page weight (MB)	Chrome DevTools
4	Broken_link	Validation	Count of 404 errors	W3C Link Checker
5	No_of_requests	Network	HTTP requests count	DevTools Network Panel
6	First_byte (TTFB)	Network	Time to first byte from server	WebPageTest
7	Start_render_time	Rendering	First visual change	SpeedCurve
8	Largest_contentful_paint (LCP)	Core Web Vital	Largest element render time	Lighthouse
9	Total_links	SEO	Hyperlinks count	Screaming Frog
10	Markup_validation	Validation	HTML/CSS validity score	W3C Validator
11	Time_to_interactive (TTI)	Interactivity	Time until reliably interactive	Lighthouse
12	Compression	Optimization	Gzip/Brotli efficiency	DevTools
13	Document_complete_time	Loading	DOM + async resources loaded	WebPageTest
14	Byte_in	Network	Downloaded data volume	Resource Timing API
15	Design_optimization	Best Practices	Adherence to performance guidelines	Lighthouse
16	Interaction to Next Paint (INP)	Core Web Vital	Observes the latency of all interactions a user has made with the page	Lighthouse
17	Cumulative Layout Shift (CLS)	Core Web Vital	Visual stability score	Lighthouse
18	First Contentful Paint (FCP)	Rendering	First text/image render	Lighthouse

#	Metric	Category	Description	Measurement Tools
19	Speed Index	Rendering	Visual completeness speed	WebPageTest
20	DOM Content Loaded Time	Rendering	DOM ready event time	DevTools
21	JavaScript Execution Time	JavaScript	Total JS processing time	Chrome Tracing
22	CSS Blocking Time	Rendering	CSS render-blocking duration	Critical Path Analyzer
23	DNS Lookup Time	Network	DNS resolution latency	WebPageTest
24	SSL Negotiation Time	Security	TLS handshake duration	WebPageTest
25	Main Thread Work (CPU)	Processing	Main thread busy time	Chrome Performance Tab
26	Long Tasks (>50ms)	JavaScript	Blocking tasks count	Long Tasks API
27	Bounce Rate	UX	Single-page sessions	Google Analytics
28	Session Duration	UX	Average engagement time	Google Analytics