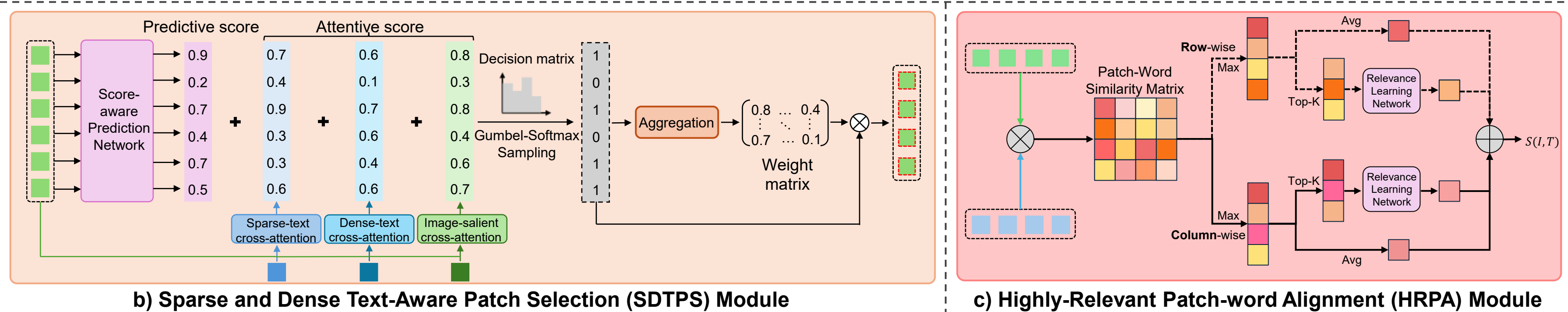a) **Overview of Semantic-Enhanced Patch Slimming (SEPS) Framework**

b) **Sparse and Dense Text-Aware Patch Selection (SDTPS) Module**

c) **Highly-Relevant Patch-word Alignment (HRPA) Module**