



- (A)** The **BUS HANDLER (BUS-HDLR)** provides memory block concatenated with physical address to the **PTAG GENERATOR (PTAG-GEN)**.
- (B)** **Fuzzy Extractor** serves an extracted PUF-based key to **PTAG-GEN**.
- (C)** The **PTAG MEMORY MANAGEMENT UNIT (PMMU)** can either provide:
- (i)** a chunk of **PTAGs** concatenated with their address location;
 - (ii)** or a time stamp for **PTAG-GEN**.
- (D)** **PMMU** receives a new **PTAG** when it requests generation to **PTAG-GEN**.
- (E)** **PTAG-GEN** provides **PTAG** for comparison.
- (F)** **PMMU** provides **PTAG** for comparison.
- (G)** If the comparison fails, a signal is sent to **BUS-HDLR** for action.
- (H)** **PMMU** sends and receives **PTAGs** from the **PTAG Memory**.
- (I)** **PMMU** decodes virtual **PTAG** address to physical address and sends it to **PTAG Memory**.