A

$$1\ \textbf{FPB} = \frac{1\ \text{fragment (mapped to BSJ site)}}{1\ \text{billion mapped bases}}$$

$$= \frac{1\ \text{fragment}}{10 \times (100\ \text{bases/fragment*} \times \text{million})}$$

$$= \frac{1\ \text{fragment}}{10\ \text{million-fragments}}$$

$$= 0.1\ \textbf{FPM*}$$

* for 1 × 100 bp single-end RNA-seq

B

$$1\ \textbf{FPB} = \frac{1\ \text{fragment (mapped to BSJ site)}}{1\ \text{billion mapped bases}}$$

$$= \frac{1\ \text{fragment}}{5 \times (2 \times 100\ \text{bases/fragment**} \times \text{million})}$$

$$= \frac{1\ \text{fragment}}{5\ \text{million- (paired-end) fragments}}$$

$$= 0.2\ \textbf{FPM**}$$

** for 2 × 100 bp paired-end RNA-seq