

Q 49)

Since b is a primary key for S

a tuple of R can join only one tuple of S

Total tuples in join : $\boxed{10000}$ $\text{\$}$

2.5 points.

Since both R and S have the same tuple size

(10 tuples fit in a page) (i.e. $t_R = t_S$)

The join can be ~~twice~~ the size of $t_R + t_S$

t_R is tuple size of R

t_S is tuple size of S

\therefore join ~~will be~~ tuple size can be $2 \cdot t_R$

i.e. instead of 10, only $\boxed{5}$ tuples will fit on a page.

$$\# \text{ of pages} = \frac{\text{Total \# of tuples}}{\# \text{ of tuples/page}} = \frac{10000}{5} = \boxed{2000}$$

2.5 points