Family name: …… Given name: ……

Family name: …… Given name: ……

Family name: …… Given name: ……

Assume you have a HANA table T stored **row-wise**, which ocupies 300 blocks and contains tuples with three variable length attributes [A, B, C] (underlined attribute is declared to be the primary key of the table). Assume there is **no index** and give the average cost of each query assuming accessing one block is one second.

a) SELECT A,B,C FROM T WHERE A=x; (being x a constant)

b) SELECT SUM(B) FROM T;

Family name: …… Given name: ……

Family name: …… Given name: ……

Family name: …… Given name: ……

Assume you have a HANA table T stored **column-wise**, which ocupies 300 blocks and contains tuples with three attributes [A, B, C] (underlined attribute is declared to be the primary key of the table). Assume there is **no index**, storage of each attribute uses exactly the same space after compression (i.e., 100 blocks), and run length encoding has been applied for non-key attributes storing ending row position per run. Give the average cost of each query assuming accessing one block is one second and explicit any other assumption you make.

c) SELECT A,B,C FROM T WHERE A=x; (being x a constant)

d) SELECT SUM(B) FROM T;

Family name: …… Given name: ……

Family name: …… Given name: ……

Family name: …… Given name: ……

Represent the given column with dictionary and run-length encoding storing end row position.

Table	Dictionary	End row	Code
A			
A			
B			
B			
B			
C			
A			
A			