Consider a BCD (binary code decimal) to 7-segment display. There are 4-binary inputs representing the decimal digits 0,1,2..9 and there are 7 output functions, each representing a segment of the LED display.

(i) Draw the Truth Table(TT) representing the inputs and the 7 output segments (functions).
(ii) Write the sum of minterms for each of the function.
(iii) What is the “don’t care” function for each output?
(iv) Simplify the function for each segment (use don’t cares ) and implement it using only NAND gates.