Q5. Answer in brief:

a. Over the years, FPGA vendors have been increasing the size of the LUTs on their devices, for example, 3-LUTs have now been replaced by 6-LUTs in Virtex devices. Mention two advantages of choosing larger LUTs. Is it always true? List two good reasons to have smaller sized LUTs. **[2]**

b. FPGAs allow programming any kind of function as far as this can fit onto the device. This is possible because of the low granularity of the function generators available. However, the cross point programmable interconnections act as a bottleneck to the performance of FPGAs. Why? Suggest a way to improve this drawback. **[2]**

c. Which of the two Anti-fuse technologies is used to make interconnections with minimum resistance. Why? List two advantages over SRAM technology. **[2]**

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