



**SECTION-C**

Q 10.	(a) Design 4-bit adder/Subtractor (with carry) and explain its function. (b) Describe with necessary diagram the working of interrupt controlled I/O.	<b>10+10</b>	<b>CO1, CO3</b>
Q 11.	(a) What are micro operations? Write down the micro operations involved for the following instructions along with respective timing intervals: (i) BSA (ii) ISZ (iii) ADD (b) Explain, why we need to have at least a little portion of primary memory implemented with ROM.  OR  (c) Discuss about set-associative mapping. (d) Draw the block diagram of CPU registers along with memory in a shared bus architecture. Explain how can the bus be accessed without contention with necessary design mechanism.	<b>[2+ (3x4) +6</b>	<b>CO2, CO4</b>
		<b>[8+(4+ 8)]</b>	