

**Bharati Vidyapeeth**  
**(Deemed to be University), Pune**  
**School of Distance Education**

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**Assignment No.: 1**

<b>Course:</b>	<b>BCA</b>	<b>Class:</b>	<b>BCA I</b>	<b>Semester:</b>	<b>II</b>
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<b>Subject:</b>	<b>Computer Organization and Architecture</b>
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**Q.1)** Answer the following questions in 1000 words (Any One) (10)

- a) Explain the functioning of 4 bit bi-directional shift register with parallel load.
- b) What is binary counter? Design 4 bit binary counter with JK flip-flop and discuss working of it.

**Q.2)** Answer the following questions in 800 words (Any Two) (12)

- a) What is combinational circuit? Describe half and full adder with help of circuit diagram and truth table.
- b) Explain working of 4 to 1 line multiplexer.
- c) Discuss the instruction cycle with help of flow chart.
- d) Draw the block diagram of 4 bit adder-subtractor and discuss the functioning.

**Q.3)** Write a Short Note on (Any Two) (08)

- a) Interrupt cycle
- b) Register transfer language
- c) Decoder
- d) Computer instructions

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