



Q.1. Answer the following short questions: (10x3=30)

- a. Design edge triggered RS Latch.
- b. Which memory is used as program memory? Explain .
- c. What type of Fuse used in CMOS technology?
- d. What is memory cell? Draw 2*8 array memory unit.
- e. Draw the basic block diagram of CPU.
- f. Draw 4 bit table of grey code.
- g. What are micro operands? Give example.
- h. What is meant by pipeline processing?
- i. How a binary error can be located? Give example.
- j. How double mode operation works in u-741 operational amplifier IC.

Q.2. Answer the following questions. (3x10=30)

- 1. Design complete ALU structure of computer system. (10)
- 2. Design MOD 7 synchronous counter. Also draw its truth table, circuit and timing diagram. (10).
- 3. (a). Design 16 to 1 line multiplexer . (5)

(b). Differentiate between the ideal and practical Operational amplifier parameters . (5)