S.E. DIVA & B **Assignment 1**

1. Draw and explain the architecture of 8086. [10M]
2. Explain pre-fetch queue of 8086 [2M]
3. Draw and explain flag register of 8086. [10M]
4. Write a formula to calculate physical address. And explain why its required to calculate it? [2M]
5. Write a note on addressing modes of 8086. [10M]
6. The instruction 'MOV BL,[SI]' comes under which type of addressing mode [2M]
7. Design the power on reset and manual reset circuit for 8086 processor. [5M]
8. What is de multiplexing of address and data bus also explain the significance of ALE pin [5M]
9. Why 8284 is needed in 8086 based system? [5M]
10. List Features of 8086 microprocessor [5M]
11. What is the memory addressing capacity of 8086 ? and why? {2M]
12. Explain memory segmentation in 8086 and list its advantages [10M]
13. Explain memory banking in 8086 system and describe its advantages. [10M]
14. Explain minimum mode of operation. [10M]
15. Explain maximum mode of operation. [10M]
16. Draw and explain timing diagram for RD/WR operation in minimum mode of 8086. [5M]
17. Draw and explain write/read operation timing diagram for maximum mode. [5M]
18. Differentiate between minimum mode and maximum mode of 8086. [5M]
19. Explain types of interrupts. [10M]
20. Design the power on reset and manual reset circuit for 8086 processor. [5M]
21. What is de multiplexing of address and data bus also explain the significance of ALE pin [5M]
22. Why 8284 is needed in 8086 based system? [5M]
23. Explain interrupt vector table. [10M]
24. Explain following instruction: [10M]
    a. DAA
    b. AAA
    c. XLAT
    d. LAHF
    e. LAHF
25. Explain string instructions of 8086
26. Write a program to ADD/SUB two 16 bit number. [5M]
27. What is Assembler directives? Explain DB, SEGMENT, ENDS, .MODEL SMALL [5M]
28. Write assembly language program to transfer data stored in data segment to extra segment. [2M]