1. Write a note on ALU?
2. Define the following (1) Opcode (2) Operands (3) Instruction (4) Instruction set (5) Program/subroutine/routine (6) Bus
3. What is a microprocessor? Explain its characteristics?
4. Explain microprocessor architecture?
5. Explain (1) Address bus (2) Data bus (3) Control bus?
6. Write down applications of microprocessor based system?
7. List and explain the features of 8085 microprocessor?
8. With neat labelled diagram, Explain architecture of 8085 microprocessor?
9. Explain flag register?
10. Explain the following (1) program counter (2) stack pointer?
11. Explain the functional pin diagram of 8085?
12. Differentiate between opcode and operand?
13. Explain 1 byte,2 byte and 3 byte instructions?
14. Write a note on Data Transfer Instructions(group of any 3) (MOV Rd,Rs ,MOV R,M ,MOV M,R , MVI R,Data ,MVI M,Data ,LXI, LDA ,STA ,LHLD ,SHLD ,LDAX Rp ,STAX Rp ,XCHG)
15. Explain following Arithmetic Instructions related to Register,Memory (ADD ,ADC ,ADC M ,ADI ,ACI)
16. Explain Additional Data Transfer and 16-bit Arithmetic operations(group of any 3) (DAD Rp ,SUB Rp ,SUB M ,SBB R ,SBB M ,SUI ,SBI ,DAA ,INR ,DCR ,INX DCX)
17. Explain Logical Group Instructions (group of any 3) 1. ANA 2. ANI 3. ORA 4. XRA 5.XRI 6. CMA 7. CMC 8. STC 9. CMP 10. CPI 11. RLC 12. RRC 13. RAL 14. RAR
18. Explain Stack Related Instructions 1.Push Rp 2. POP Rp 3. SPHL 4. XHTL 5. LXI Sp,Data
19. Explain Branch operation (JMP, PCHL ,CALL)
20. Write a note on conditional Call instruction?
21. Write a note on RET instruction?
22. Explain Machine control instruction (NOP ,HLT ,EI ,DI ,RIM ,SIM ,IN)
23. Explain restart instruction?
24. Write a note on subroutine?
25. Explain Nested Subroutine?
26. Explain the function of SID and SOD pins?
27. Write a program to convert BCD to Binary OR Binary to BCD?
28. Write a program to convert Binary to ASC III OR ASC III to Binary?
29. Write an assembly language program to multiply 2 BCD numbers?
30. Define 1. Interrupt 2. ISR 3. Vectored/Non vectored interrupt 4. Maskable/Non maskable interrupt?
31. Explain features of 8155?
32. Explain the functional block diagram of 8155?
33. Explain timer section of 8155 with its modes?
34. Compare between full address decoding and partial address decoding?
35. List and explain Pentium register?
36. Explain general purpose register of Pentium?
37. Explain the pointer registers of Pentium processor?
38. Explain the EFlag register of Pentium processor?

39. Explain real and virtual mode of Pentium processor?
40. Explain how paging is implemented in protected mode of Pentium?
41. Explain the special features of Pentium processor?
42. Explain the block diagram of Pentium processor?
43. Explain the instructions of Pentium processor?
44. Explain RDMSR and WRMSR instructions?
45. Explain features of Pentium processor?
46. Explain features of Pentium 2 processor?
47. List and explain the features of Pentium 4 processor?
48. Explain block diagram of Pentium 4 processor?
49. Compare the features of multi-core processor i3,i4,i7?
50. Compare RISC vs CISC processor?
51. List the registers of SPARC processor?
52. Explain processor state register?
53. Explain floating point state Register(FSR)?
54. Explain the architecture of SUN SPARC processor?