UNIT 1

1. What is microprocessor
2. Which is the first microprocessor
3. Define CPU
4. What is the difference between bit & byte
5. Define peripherals
6. What is mnemonic
7. What is assembler
8. Define ALU
9. Name the general purpose registers used in microprocessor 8085
10. Name the flags used in microprocessor 8085
11. Define program counter
12. How many address lines are needed for accessing 64Kbytes external memory
13. What is the use of ale signal
14. Define interrupt signal
15. How many machine cycles are used in microprocessor 8085
16. Classify the instruction of 8085 according to their length
17. Define register addressing modes
18. Define accumulator
19. Explain the instructions MOV r, m
20. What are the different types of arithmetic functions performed in 8085
21. What are the different types of logical functions performed in 8085
22. What is the use of jump instructions
23. What is the use of call instructions
24. Define instruction cycle
25. What is the use of fetch cycle
26. Define t state
27. Define timing diagram
28. How many machine cycles are needed for executing LDA instructions
29. How many t states are needed for executing call instructions
30. How many interrupt signal are placed in 8085
31. Which interrupts has the high priority
32. Which interrupts is a non-mask able interrupt
33. Which interrupt is a non-vectored interrupt
34. Define i/o mapped i/o
35. Define memory mapped i/o
36. What is the use of status signals

UNIT 2

1. What is microcontroller
2. How many i/o ports are placed in microcontroller 8051
3. How many SFR are placed in mc8051
4. Define DPTR
5. Mention the capacity of internal ram and internal rom of 8051
6. What is the purpose of PSW register
7. What is the purpose of SFR
8. What is the use of EA pin
9. Mention the three different address spaces of 8051
10. What is the capacity of internal ram & external ram
11. How is the internal ram classified
12. How many register banks are placed in internal ram
13. How many bit addressable locations are placed in internal ram
14. What is the program counter
15. What is the use of carry flag
16. Where is the stack memory placed in 8051
17. Which port is used for alternate i/o functions
18. What is the use of TMOD register
19. How many timer/counter are placed in 8051
20. Which SFR is used for setting the timer
21. Mention the different types of modes of timer counter operation
22. What is interrupt signal
23. Name the five types of 8051 interrupt signals.

24. Name the five types of 8051 interrupt signals
25. Which interrupt has the highest priority
26. What will happen in power down mode
27. Mention the different modes of serial Communication
28. Mention the baud rate of mode 2
29. Which SFR are used for interrupt
30. Mention the baud rate of mode 1
31. What are the signals used for accessing external data memory
32. What is the use PSEN signal
33. Define Clock Signal
34. Define machine Cycle
35. How many clock cycles and states are placed in one machine cycle
36. Define instruction cycle

UNIT 3

1. What is assembler
2. Mention the program used for assembling and running an assembly language program
3. How many instructions are used in 8051 family classify them
4. Mention the functional groups of 8051 instructions
5. Mention the various types of addressing modes used in 8051 instructions
6. What are the addressing modes used for accessing for SFR
7. What are the three important classes of data transfer instructions
8. Mention the various types of instructions uses stack memory during their Execution
9. What are the different types of MOVC instructions
10. What is the difference between MOVX A @ Ri and MOVX A, @DPTR instructions
11. What are the different types of arithmetic operations performed in signed and unsigned numbers
12. Which is conditional flag used in signal operations
13. What will happen in OV flag during execution of MULAB instructions
14. What are the different types of addition function performed in 8051
15. What will happen during the execution of DA A instruction
16. How are the logical instructions classified
17. What are the different types of logical operations performed in 8051
18. What will happen during the execution of SWAPA instruction?
19. What is the use of compare instruction used in 8051
20. Mention the different types of compare instruction used in 8051
21. State the two ways of transferring data in serial manner
22. Define packed BCD numbers
23. What are the different types of byte level conditional jump instructions used in 8051
24. Mention the rotate instruction in 8051
25. Mention the different types of unconditional jumps instruction
26. What is the basic difference between jump and call instruction
27. What are the different types of bit level jump instructions
28. What is the basic difference between AJMP and LJMP instructions
29. Why do the call instructions use the stack memory
30. What is the basic difference RET RETI instructions
31. What is the use of time delay routine
32. What are the instructions used for changing the control program
33. Mention some assembler directives
34. What is the use of object file in assembler
35. Mention the various types of assembler
36. What is assembler

UNIT 4

1. How many I/o ports are in 8051 mention their names
2. Which port is called multifunctional I/O port
3. Specify the byte address of 8051 I/O port
4. How is internal ram classified
5. How many bit addressable locations in internal ram area
6. Specify the address range of bit addressable locations in internal RAM
7. What type of addressing is used for accessing bit addressable internal RAM
8. What will happen during the execution of MOV P2.0, c instruction

9. How many timers are in 8051 specify their names
10. Mention the four modes of timer operation what are the registers used for timer/counter operation
11. What Is the use of gate bit in TMOD registers
12. Define timer operation
13. Define counter operation
14. Specify the different modes of serial communication
15. What are the registers used for timer counter operations
16. What is the difference between mode2 and mode3 of serial communication
17. How is the serial transmission initiated
18. What are the condition required for initiating serial reception
19. What are the registers used for serial communication in 8051
20. Specify the baud rate of serial communication in mode 2
21. What is the use of RS 232
22. Why drivers are used in between RS 232 and microcontroller
23. What is interrupt signal
24. Mention the various types of interrupts in 8051
25. Specify the vector address of 8051 interrupts
26. What are the SFR registers used in interrupt operation
27. Specify the priorities of interrupt within level

UNIT 5
1. Define peripherals
2. What is interfacing
3. What is the use of 8255
4. Mention the ports placed in 8255
5. Mention the ports placed in group A and group B of 8255
6. State the modes of operation of 8255
7. How is the i/o mode is classified
8. Specify the three modes of 8255
9. What is relay
10. Mention the three important components of electromagnetic relay
11. Define opto isolator
12. Define transducer
13. How is the output voltage of LM34 varied
14. How is the output voltage of LM35 varied
15. What is signal conditioning
16. Define ADC
17. Which technique is used in ADC 0808
18. What is the use of MAX 1112 ADC chip
19. Define DAC
20. State the output current of DAC 0808
21. Mention the three major tasks of keyboard to get a meaning full data
22. Mention the different types of seven segment LED
23. Mention the two important registers placed in LCD
24. Specify the important LCD modules
25. What is the use of stepper motor
26. Which technique is used for varying the speed of DC motors used in microcontrollers
27. What is the use of RTC
28. Mention the capacity of nonvolatile RAM placed inside of DS 12887.