AZETECH SOLUTIONS

PIC COURSE COMPLETION TEST

1. What is the size of RAM, ROM and EEPROM?
2. What is word? What is the length of instruction?
3. What is power up timer?
4. What is oscillator start up timer?
5. What is LVP & HVP?
6. What is Brownout reset and Power on reset?
7. What is the stack level of PIC16f877a?
8. How many banks available in RAM and what is the size of each one?
9. What is the need of PGD,PGC and PGM?
10. What is bootloader and where it is stored?
11. What is the minimum time required to switch on a GPIO?
12. Write a macro program to set, toggle and clear ‘n’th pin.
13. What is maskable and un-maskable interrupts?
14. What is the need of Sync with internal clocks block in timer0?
15. Draw the system model of Timer1.
16. What is prescalar and postscalar? Why FOSC is divided by 4 for internal peripherals?
17. Which flip flop is mostly used in prescalar?
18. Write the calculation for 200ms using timer0.
19. What is watchdog timer?
20. What is glitchless operation in PWM? Find pwm frequency ?
21. What is vectored & non-vectored interrupts?
22. Difference between interrupt, polling and exceptions?
23. What will be happen if 2 interrupts are involved and raised on same time?
24. What is ISR and IRQ? Address location of interrupt &reset
25. What are the modes available in capture & compare?
26. Write the calculation for obtaining 1500 Hz Frequency from PWM.
27. What is PR2 register? Where it’s used?
28. Draw the block diagrams for timer0, 1, 2 and CCP modules. Define formulas for all.
29. What is PSA and what it is used in timer?
30. Write pwm program for 77%duty cycle and Draw the waveforms.
31. What is Baud rate and Bitrate?
32. What is RS232 standard?
33. Explain the Difference between ASCII and Extended ASCII.
34. Draw the Pin out of DB9 connector.
35. What is the need for MAX232? Draw its Pin outs.
36. Draw the internal system model of UART.
37. Write the baud rate calculation for 4800 Baud rate.
38. How will you configure interrupt for transmission?
39. What are the types of parity? Explain them.
40. What is Hamming code?
41. What is framing error?
42. What is over run error?
43. What is circuit used inside the baud rate generator?
44. Write the UART frame.
45. What is NRZ (Non Return Zero)?
46. What is the minimum and maximum baud rate possible?
47. Draw spi block diagram?
48. What is clock phase and clock polarity?
49. Interface DAC MCP4922 with pic16f877 using spi protocols.
50. What are errors will occur in spi? Explain about it.
51. Explain about i2c elements. Draw waveforms for each element.
52. Draw write and read frames with timing diagram in i2c.
53. Draw the system model of I2C of PIC.
54. What is broadcasting? What is the address of it?
55. What is Clock stretching?
56. What is Arbitration? Give examples?
57. What is open drain in I2c?
58. Write down the formula to calculation master clock speed.
59. Write procedures for i2c master and slave.
60. Interface rtc and eeprom with pic16f877a using i2c.