8051 SERIAL COMMUNICATION
MODULE 04

1. Define Communication. Explain the Serial communication with diagram.
2. Define Communication. Explain the Parallel communication with diagram.
3. With neat diagram explain the Asynchronous serial communication data transmission.
4. With neat diagram explain the Asynchronous serial communication data transmission.
5. Differentiate between the Asynchronous and synchronous serial communication.
6. Classify the Simplex, Half Duplex and Full Duplex serial data transmission with example.
7. Explain the SCON (Serial Control Register) in detail.
8. Explain the PCON (Power Control Mode) Special Register.
9. Write the procedure to program the 8051 to transfer the data serially.
10. Write the procedure to program the 8051 to receive the data serially.
11. Write an 8051 assembly language program to transfer letter “G” serially at 9600 baud rate continuously.
12. Write a C language program to transfer letter “G” serially at 9600 baud rate continuously.

1. Explain the architecture of 8255 with neat diagram.
2. Explain the control word format of 8255.
3. Interface ADC 0808 using 8255.

OBJECTIVES TYPES QUESTIONS
MODLE 04

1. MODEM Is also called
   a. Modulator/Demodulator
   b. MEMS
   c. Baud Rate
   d. None of these

2. Asynchronous serial communication is widely used for
   a. Character Oriented Transmission
   b. Word Oriented Transmission
   c. Double word Oriented Transmission
   d. Nibble Oriented Transmission

3. Addition of start and stop bit gives
   a. 10% Overhead
   b. 25% Overhead
   c. 20% Overhead
   d. 40% Overhead

4. In serial communication sometimes parity bit is added to maintain
   a. Data Integrity
   b. Double Integrity
   c. Single Integrity
   d. None of these

5. Baud Rate is also called as
   a. Bits per second
   b. Bits per minute
   c. Bits per hour
   d. None of these

6. Crystal Frequency for 8051 is
   a. 10.05MHZ
   b. 20.05MHZ
   c. 13.0592MHZ
   d. 11.0592MHZ

7. In Synchronous serial communication
   a. Common clock is used
   b. Individual clock is used
   c. No clock is used
   d. None of these

8. In Synchronous serial communication
   a. Data Transfer takes place in blocks
   b. Data Transfer is character oriented
   c. All of these
   d. None of these

9. In simplex serial data transmission
   a. Data Transmission takes place in one direction
   b. Data Transmission takes place in both direction
   c. Data Transmission take place in No direction
   d. None of these

10. Walkie -Talkie is an example for
   a. Simplex Data Transmission
   b. Half Duplex Data Transmission
   c. Full Duplex Data Transmission
   d. All of these

11. In Full Duplex serial data transmission
   a. Data Transmission take place in one direction
   b. Data Transmission takes place in both direction
   c. Data Transmission take place in No direction
   d. None of these

12. SCON (Serial Control Register) is an
   a. 8- bit Register
   b. 10- bit Register
   c. 16-bit Register
   d. 32-bit Register

13. REN in SCON register is called
   a. Reception Encounter
   b. Real Enable
   c. Read Enable
   d. Receive Enable

14. SCON is also called
   a. Serial Control Register
   b. Set Control Resister
   c. System Control Register
   d. None of these

15. PCON is also called
    a. Program Counter Register
    b. Pin Control Register
    c. Power Control Register
    d. None of these

16. SMOD = 1 in SCON is used to
    a. Decrease the baud rate
    b. Double the baud rate
    c. Multiply the baud rate
    d. None of these

17. SBUF in serial communication is used for
    a. Transmission
    b. Reception
    c. Both Transmission and Reception
    d. All of these

18. 8255 Architecture has
    a. 24 programmable Input Output Pin
    b. 14 programmable Input Output Pin
    c. 34 programmable Input Output Pin
    d. 44 programmable Input Output Pin

19. PPI in 8255 is also called
    a. Programmable Peripheral Interface
    b. Program Pin Interface
    c. Program Prevent Interface
    d. Program Print Interface

20. BSR in 8255 is also called
    a. Bit Set - Reset Mode
    b. Board Set Range
    c. Bit Super Range
    d. Bit Service Range