

# **Northern India Engineering College, Delhi**

(GGSIP University)

SUBJECT – EMBEDDED SYSTEM

SUBJECT CODE- ETEC-404

## **ASSIGNMENT –III**

- Ques1. What are the different methods to create a delay program with 8051 and explain any two methods with an example?
- Ques2. Show the interface diagram that illustrates 8051 with External of 32KB of RAM and 16 KB of ROM?
- Ques3. Describe various serial protocols available for communications.
- Ques4. Explain the benefits that an interrupt address table has over fixed and vectors interrupt methods.
- Ques5. Write a program to send the message “we are Indian” to serial port. Assume a switch (SW) is connected to pin P1.4. Monitor its status and set the baud rate as follows.  
Assume that XTAL=11.0592 MHZ. SW=0, baud rate = 4800, SW=1, baud rate=9600
- Ques6. Write a program that continuously gets 8-bit data from P0 and send it to P1 while simultaneously creating square wave of 200 msec period on pin P2.1. use timer 0 to create the square wave.
- Ques7. External data ROM has a look-up table for the squares of number 0-9. Since the internal RAM of the 8051 has a shorter access time, write a program to copy the table elements Ram starting at address 0 of external ROM.
- Ques8. Show the DAC interfacing with 8051 and write a program to output the result to port one.
- Ques9. Explain the most important requirement of RTOS? What are the criteria to achieve it?
- Ques10. What are the design steps in Embedded System Development? Explain each in brief