

SEM	SET	PAPER CODE	TITLE OF THE PAPER
II	2014	14PEL2105	EMBEDDED SYSTEM – I (MICROCONTROLLERS AND PROGRAMMING WITH IDE'S)

SECTION – B

Answer all the questions:

5 x 5 = 25

31. a. How flag bits and PSW are organised in 8051.

OR

b. List different addition mnemonics available in 8051 with respect to source register.

32. a. List the interrupts available in 8051 and discuss their priority.

OR

b. Write an assembly language program to interface LED & switch.

33. a. Describe the sleep modes available with AVR controllers.

OR

b. Explain the following instructions

- (a) SBRC (b) BRNE (c) RJMP (d) SWAP

34. a. Explain the lock bits of Atmega 8.

OR

b. Draw a circuit diagram to elucidate the capacity of built in ADC in Atmega 8.

35. a. How a stepper motor could be interfaced with 8051? Explain with a neat circuit diagram and appropriate program.

OR

b. Write an embedded 'C' program to interface an LED with Atmega 8.

SECTION – C

Answer any THREE questions:

3 x 15 = 45

36. Describe the various types of addressing modes in 8051 with examples.

37. Write a C program to generate 1 sec delay using timers in 8051.

38. Draw the architecture of Atmega 8 and explain the operation of each block.

39. Listdown the steps involved in creating hex file using AVR studio.

40. With a neat circuit diagram, explain the procedure to interface ADC0809 with 8051 and also write appropriate program in embedded 'C'.
