

- 8 a. What is the difference between Timer and Counter operation in 8051? 5
- b. Explain all four modes of timer with relevant diagrams. 10
- c. Explain the difference between jump and call instruction. 5

UNIT - V

- 9 a. Write an 8051 ALP to display PESCE on LCD display and show the interfacing circuit with functional pins of LCD 10
- b. Write a program in 8051 ALP to send the letter 'P' serially using the UART at baud rate of 9600. Configure the SCON register in mode 1. Assume the crystal frequency of 11.0592 MHz. Show all calculations for mode and baud rate generation. 10
- 10 a. Explain step by step procedure to interface 4x4 matrix keypad with 8051 along with a relevant block diagram. 10
- b. Write a diagram indicating 8051 connection to ADC 0809. 5
- c. Write steps to program the ADC 0808/0809. 5

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