



Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code : 50466

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017

Seventh Semester

Electrical and Electronics Engineering

EE 6008 – MICROCONTROLLER BASED SYSTEM DESIGN

(Common to Electronics and Instrumentation Engineering/Instrumentation
and Control Engineering)

(Regulations 2013)

Time : Three Hours

www.recentquestionpaper.com

Maximum : 100 Marks

(Codes /Tables/Charts to be permitted, if any, may be indicated)

Answer ALL questions

PART – A

(10×2=20 Marks)

1. Difference between microcontroller and PIC microcontroller.
2. List out the types of addressing mode.
3. What do you mean by state machine ?
4. Define subroutine.
5. List out some registers associated with UART.
6. Difference between bus operation and bus subroutine.
7. Define baud rate.
8. List out the four ARM development tools.
9. What is three stage pipelining in ARM processor ?
10. Give the details about the real time embedded ARM applications.

www.recentquestionpaper.com

PART – B

(5×16=80 Marks)

11. a) i) Detail description about the various types of addressing modes. (8)
ii) Explain about the instruction set of PIC microcontroller. (8)

(OR)

- b) Draw and explain about the architecture of PIC Microcontroller. (16)



12. a) In detail give an account on Timer programming, RAM/ROM allocation in PC. (16)
- (OR) www.recentquestionpaper.com
- b) i) Define Interrupt. (4)
ii) Explain the interrupt structure of PIC microcontroller with neat diagram. (12)
13. a) Exhibit the operation of I2C bus and develop embedded C program to transmit data using I2C bus. (16)
- (OR)
- b) Explain the PIC interfacing with peripherals that includes ADC's with timer and sensors. (16)
14. a) i) Explain the various data operations involved in ARM. (8)
ii) Illustrate the concept of data operations in ARM processor. (8)
- (OR)
- b) With neat sketch explain the functional block diagram ARM architecture. (16)
15. a) Write a embedded C program to control the speed of the stepper motor and interface stepper motor with 8051. (16)
- (OR)
- b) Develop embedded C program to identify the key pressed and to display the pressed key in LCD display. (16)