G 852

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2014

Eighth Semester

Branch : Electronics and Communication Engineering/Applied Electronics and Instrumentation Engineering

ADVANCED MICROCONTROLLERS (Elective II) (LA)

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer **all** *questions.*
Each question carries 4 *marks.*

1. What are the different RESET methods of AVR microcontroller ?
2. Explain the General Interrupt Mask Register - GIMSK in ATTiny 15L microcontroller.
3. Explain the feature Watch dog timer in ATTiny 15L microcontroller ?
4. What you meant by low-voltage serial downloading in ATTiny15L microcontroller ?
5. Explain how the boot ROM is used for the forced execution in COP8 microcontroller.
6. Explain the RAM organization in COP8 family microcontroller.
7. Explain how the baud rate is generated in COP8 family of microcontroller.
8. What is prescaler option in A/D converter of COP8 family of microcontroller ?
9. Why some registers are available in all the register files in 16F873 microcontroller ?
10. Explain the STATUS register in 16F873 microcontroller.

(10 × 4 = 40 marks)

Part B

Answer **all** *questions.*
Each question carries 12 *marks.*

11. Explain the mapping of different Input and Outputs in ATTiny15 L Microcontroller.

Or

12. Explain how the clocking signals are generated and managed in ATTiny15 L microcontroller.
13. With block diagram explain the operation of Analog to digital converter in ATTiny15L microcontroller

Or

14. Explain the fuse bits and signature bytes in ATTiny15 L microcontroller.

Turn over

15. What are the different modes of operation of timers in COP8 family of microcontrollers ? Explain with diagram.

Or

16. Explain the different RESTE operations in COP8 family of microcontrollers.

17. With block diagram explain the operation of USART in COP8CBR9 microcontroller.

Or

18. Explain in details the operation of watchdog timer in COP8 family of microcontroller.

19. With a block diagram explain the architectural features of PIC216F873 microcontroller.

Or

20. Explain the read and write operation of EEPROM memory in 16F873 microcontroller.

(5 × 12 = 60 marks)