C14-EC-605

4739

BOARD DIPLOMA EXAMINATION, (C-14)

JUNE-2019

DECE - SIXTH SEMESTER EXAMINATION

ADVANCED MICRO CONTROLLERS

Time:3 Hours **Max.Marks:80**

PART-A

10x3=30M

Instructions: 1) Answer all questions.
2) Each question carries three marks.
3) Answer should be brief and straight to the point and shall not exceed five simple sentence

1) List the status flags of PIC16F877 microcontroller.

2) What is ment by 'Brown-Out-Reset' feature in PIC microcontrollers?

3) Write a short note on SLEEP mode of PIC microcontroller.

4) list any three features of RISC architecture.

5) What is thumb mode in ARM?

6) List any three arithmetic instrucuons of ARM7 processor.

7) Give the functions of the following registers in ARM7 processor:

a) Stack pointer b) Program Counter

8) Draw the generall block diagram of an Embedded system.

9) What is thread in the Operating System Context?

10) List any three types of Real Time Operating Systems(RTOSs).

PART-B

5x10=50M

Instructions: 1) Answer any five questions
2) Each question carries ten marks.
3) The anwer should be comprehensive and the criteia for valuation are the content but not the lenght of the anwer

11) a) List the peripheral features of PIC 16F877.
b) Discuss the role of 'Watchdog Timer(WDT)' in PIC microcontrollers.

12) Draw the pin diagram of PIC16F877 microcontroller and state the function of each pin.

13) Explain memory organization of PIC16F877.

14) Explain the following instructuons of PIC16F877:
a) ADDWF f,d b) BCFf,b c)ANDLW k
d) INCFSZ f,d e) RLF f,d

15) Explain the architecture of ARM7 processor with a neat sketch.

16) Explain various addressing modes of ARM7 processor.

17) Explain the concept of pipelining in ARM7 processor.

18) a) List the differnces between Embedded System and General Computing System.
b) List any five applications of an Embedded System.

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