C14-EC-605

4739

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL-2019

DECE - SIXTH SEMESTER EXAMINATION

ADVANCED MICRO CONTROLLERS

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

PART-A

3x10=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 simple sentences.

1) List any six features of PIC 16F877.

2) List the bit oriented instructions of PIC 16F877.

3) List any three Applications of PIC Micro Controller.

4) List the operating modes of ARM7

5) What is Thumb mode in ARM.

6) List any three arithemetic instructions of ARM7 processor.

7) Mention three applications of various versions of ARM.

8) What ia an Embedded system?

9) Define multi-processing and multi-tasking.

10) List three Types of RTOS.

PART - B

5X10=50M

Instructions: 1) Answer any **five** questions.

2) Each question carries ten marks.

3) The answer should be comprehensive and the criteria for valuation is content but not the length of the answer.

11) (a) Draw the pin diagram of PIC 16F877. 5M

(b) Explain Program memory and Data memory of PIC 16F877. 5M

12) Explain the follwoing instructions of PIC 16F877 with suitable examples.

i) MOVWF f ii) COMF f,d iii) ADDLW k iv) GOTO k 10M

13) Draw and explain the interfacing of DC motor with PIC 16F877. 10M

14) Draw and explain Block diagram of PIC 16F877. 10M

15) (a) Compare CISC and RISC Architecture 5M

(b) Draw ARM Core Architecture 5M

16) (a) Compare the Different versions of ARM. 5M

(b) Explain Registers of ARM7 Processor 5M

17) Explain addressing modes of ARM7 Processor 10M

18) (a) Write a short note on Embedded firm ware 6M

(b) Compare Normal OS and RTOS 4M

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