C14-EC-**605**

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BOARD DIPLOMA EXAMINATION, (C-14)
OCTOBER/NOVEMBER-2018
DECE-SIXTH SEMESTER EXAMINATION

ADVANCED MICRO CONTROLLERS & DSP

Time : 3 Hours]   [Total Marks: 80

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PART-A

3X10=30

Instructions   :   1. Answer **All** questions.

2. Each question carries THREE marks

3. Answer should be brief and straight to the point

1. Mention the features of PIC controllers.

2. Draw memory and memory map of PIC microcontroller.

3. Mention the salient features of MCS-96 microcontrollers.

4. Write in short about timers of MCS-96 microcontrollers.

5. List the features of ARM controller.

6. Mention the applications of ARM controllers.

7. Mention the merits of digital signal processing over analog signal processing.

8. State the function of anti-aliasing filter.

9. Compare Embedded System and General Computing System.

10. List the types of Real Time Operating Systems (RTOS).

PART-B

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

2. Each question carries **ten** marks.

3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

11. Explain Reduced Instruction Set Computing (RISC) architecture.

12. Explain interfacing of DC motor with PIC microcontroller.

13. Explain interrupts of MCS-96 microcontrollers.

14. Explain various addressing modes of MCS-96 microcontrollers.

15. Explain ARM core architecture.

16. Explain the exception handling mechanism of ARM controllers.

17. (a) Compare FIR and IIR filters form the point of merits.

 (b) Explain Multiplier and Multiplier Accumulator(MAC).

18. (a) Explain Embedded Firm ware.

 (b) Explain Operating System Basics.

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