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BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2021

DECE - SIXTH SEMESTER EXAMINATION

ADVANCED MICROCONTROLLERS

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **four** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. List any three PIC microcontroller family of ICs.
2. List any four applications of PIC microcontrollers.
3. List any four flags of PIC 16F877 microcontroller.
4. List any four features of ARM processor.
5. State the concept of CISC architecture.
6. List the applications of ARM processors.
7. State thumb mode in ARM.
8. List any four applications of embedded system.
9. Define the concept of multiprocessing.
10. Compare normal OS and RTOS.

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[Contd...

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PART—B

15×4=60

- Instructions :** (1) Answer *any four* questions.
(2) Each question carries **fifteen** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the features of PIC16F877 microcontroller.
12. Draw the pin diagram of PIC16F877 microcontroller.
13. Draw the block diagram of PIC16F877 microcontroller.
14. Classify instruction set of PIC16F877 microcontroller and list any one instruction in each classification.
15. Compare RISC and CISC architecture.
16. Compare different versions of ARM processors.
17. Explain any six registers of ARM7 processor.
18. (a) State the concept of embedded system.
(b) Compare embedded system with general computing system.

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