M. TECH.-I (ELECTRICAL -POWER SYSTEM) (CBCS – 2015 COURSE) : WINTER - 2017

SUBJECT: ADVANCED MICROCONTROLLERS & APPLICATIONS

Day : **Friday** Time **11.00 AM TO 02.00 PM**

Date: **19/01/2018** Max Marks.60

W-2017-2794

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Answers to both the sections should be written in **SEPARATE** answer book.
4) Assume suitable data if necessary.

SECTION -I

Q.1 Explain addressing modes of PIC microcontroller. **(10)**

OR

Explain CPU architecture of PIC microcontroller. **(10)**

Q.2 List different I/O ports of PIC microcontroller & explain one of them. **(10)**

OR

List different timers associated with PIC microcontroller & explain one of them. **(10)**

Q.3 Enlist different features of MPLAB IDE (Integrated development Environment). **(10)**

OR

Explain application of D.C. motor control using PIC microcontroller. **(10)**

SECTION - II

Q.4 Write a detailed note on ARM design philosophy. **(10)**

OR

Discuss the type of instructions in ARM instruction set. **(10)**

Q.5 Explain inter process communication. **(10)**

OR

Explain "Task" & "Thread". **(10)**

Q.6 Explain basic design using RTOS. **(10)**

OR

Explain different embedded software development tools. **(10)**

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