

B.Tech Sem – V (2007 Course) (Electrical Engg.) : WINTER - 2018
SUBJECT : MICRO CONTROLLER

Day : Tuesday
Date : 27/11/2018

W-2018-2804

Time : 02.30 PM TO 05.30 PM
Max. Marks : 80

N. B. :

- 1) **Q.No.1** and **Q.No.5** are **COMPULSORY**. Out of the remaining questions attempt **ANY TWO** questions from each section.
 - 2) Answers to both the sections should be written in the **SEPARATE** answer books.
 - 3) Figures to the right indicate **FULL** marks.
 - 4) Draw neat and labeled diagrams **WHEREVER** necessary.
 - 5) Assume suitable data if necessary.
-

SECTION – I

- Q.1** a) Differentiate between RISC and CISC microcontrollers. [05]
b) Explain MOVC and MOVX instructions of 8051 [05]
c) Explain the interrupts supported by 8051. [04]
- Q.2** a) Explain each bit of TMOD SFR [06]
b) Compare 8051 family members with respect to RAM / ROM, timers, interrupts and I/O ports. [07]
- Q.3** a) Explain external interrupts of 8051. [06]
b) Explain addressing modes of 8051 with examples. [07]
- Q.4** a) Explain serial communication supported by 8051 in detail. [06]
b) Explain initializing of 8051 interrupts with its polling structure and vector address. [07]

SECTION – II

- Q.5** a) Differentiate between LJMP and SJMP instructions. [05]
b) Explain the role of assembler and cross assembler for micro controller. [05]
c) List various micro controller applications. [04]
- Q.6** a) Explain the interrupt structure of 8051 with vector addresses. [06]
b) List the various serial communications related to SFRS and explain the role of SBUF. [07]
- Q.7** a) Explain with suitable diagram serial interface of 8051 with PC. [06]
b) Write short note on simulator and emulator. [07]
- Q.8** a) Explain interfacing of 8051 with stepper motor. Draw suitable diagram. [06]
b) Draw interfacing diagram of 8051 with ADC. [07]

* * * *