

Total No. of Questions : 6]

SEAT No. :

P5025

[Total No. of Pages : 2

TE / INSEM - 523

T.E. (E&Tc)

MICRO CONTROLLERS AND APPLICATIONS

Electronics and Telecommunication Engineering

(2012 Pattern)

Time : 1 Hour]

[Max. Marks :30

Instructions to the candidates:

- 1) *Attempt Q.1, or Q.2, Q.3 or Q.4, Q.5 or Q.6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full Marks.*
- 4) *Use of Calculator is allowed.*
- 5) *Assume suitable data, if necessary.*

Q1) a) Compare RS232C with RS485 [5]

b) Explain I2C protocol for serial data transmission. [5]

OR

Q2) a) Explain selection criteria and limitations of Microcontroller. [5]

b) With the help of neat block diagram explain the operation of logic analyzer. [5]

Q3) a) Draw and explain the memory organization of 8051 microcontroller [5]

b) Explain PSW of 8051 in detail and write instruction for selection of Bank2. [5]

OR

Q4) a) Explain block schematic of Timer/Counter, State SFRS required [5]

b) Draw SCON register and calculate the count to be placed in TH1 for generation of baud rate 4800. (With SMOD = 0/1) [5]

P.T.O

- Q5)** a) State Important features of the PIC 18 Microcontroller. [5]
b) Explain Data memory organization of PIC 18F, Comment on bank select register. [5]

OR

- Q6)** a) Explain the role of TRIS, LAT and POR T register with example. [5]
b) Explain Brown - out detection (BOD) and Power - on Reset concepts for PIC microcontroller. [5]

