

Total No. of Questions : 6]

SEAT No. :

P262

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BE/INSEM/APR-590

B.E. (Computer Engineering)

**410252 (C) : EMBEDDED AND REAL TIME OPERATING SYSTEM
(2015 Pattern) (Semester - II) (Elective - III)**

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Figures to the right indicate full marks.*
- 3) *Assume suitable data, if necessary.*

- Q1)** a) What is embedded system? List and explain different challenges of embedded system. [5]
b) With neat diagram, explain the components of Embedded system hardware. [5]

OR

- Q2)** a) What are different types of processor technologies used in embedded system design. [5]
b) List and Explain software tools used for designing of an embedded system. [5]

- Q3)** a) What is the use of I2C bus? Draw and explain the I2C data frame format. [5]
b) Describe different forms of memories in the embedded system. [5]

OR

- Q4)** a) Explain in detail DSP Processor Architecture with core architectural block diagram. [5]
b) Enlist various Internet enabled embedded system protocols and explain any one with its features and diagram. [5]

- Q5)** a) What is HDLC? Explain different frame types and data transfer modes of HDLC. [5]
b) Explain why PCI/X buses are used for high speed data transfer? List the major features of PCI/X bus. [5]

OR

- Q6)** a) Explain Serial protocols RS-232C & RS-485. [5]
b) Explain in detail Parallel ports I/O Interfacing with neat diagram. [5]

