

Total No. of Questions : 8]

SEAT No. :

P5494

[Total No. of Pages : 2

[5671]-263

M.E. (VLSI & Embedded System) (E & TC)

EMBEDDED SYSTEM DESIGN

(2017 Pattern)

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) Answer any five questions.
- 2) Figure to the right indicate full marks.
- 3) Assume suitable data, whenever necessary.

Q1) a) Explain various design metrics of embedded system design. [5]

b) List different life cycle models and explain the V type model in embedded system design. [5]

Q2) a) List the different software tools. Explain the software tools in brief (1) Cross compiler (2) Linkers (3) Loader. [5]

b) Discuss the features, IDE and applications of Raspberri Pi microcontroller. [5]

Q3) a) Explain the different features of LPC 1768 ARM Cortex. How it has improvements over classical series? [5]

b) What is the need of Pin Connect Block in LPC2148? Explain the role of PINSELx registers. [5]

Q4) a) Draw and explain Cortex Microcontroller Software Interface Standard (CMSIS) structure. [5]

b) Explain with suitable diagram, the Ethernet protocol with respect to LPC 1768. [5]

P.T.O.

- Q5)** a) What is Linux Kernel configuration? Give steps for Linux Kernel configuration. [5]
b) Explain various storage considerations in Embedded Linux. [5]
- Q6)** a) Compare BIOS v/s Boot loader. [5]
b) Explain the file structure used in Embedded Linux. [5]
- Q7)** a) Explain design of Digital camera as Embedded system case study. [6]
b) Discuss the reliability and failure analysis in Embedded system. [4]
- Q8)** a) Explain design of Automated meter reading as Embedded system case study. [6]
b) Explain types of documents to be prepared for embedded real time products. [4]

