

Total No. of Questions :10]

SEAT No. :

P2868

[4958]-1057

[Total No. of Pages :2

T.E. (Electronics)

EMBEDDED PROCESSORS

(2012 Course) (End Semester) (304211) (Semester - II)

Time : 2.30 Hours

[Max. Marks :70]

Instructions to candidates:

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

Q1) a) State and Explain of ARM 7, ARM 9 and ARM 11. **[6]**

b) Describe CPSR and SPSR of ARM 7. **[4]**

OR

Q2) a) Explain following instruction (Any three). **[6]**

i) AND

ii) ORR

iii) EOR

iv) BIC instruction

b) Draw and Explain 3 stage pipeline in ARM 7. **[4]**

Q3) a) Draw and Explain Memory map of LPC 2148. **[4]**

b) Draw interfacing diagram of GLCD with LPC 2148 and write algorithm for same. **[6]**

OR

Q4) a) Explain Timer control register (TCR) and Timer counter register. **[6]**

b) Draw and Explain Timing diagram of SPL Protocol. **[4]**

P.T.O.

- Q5)** a) Write a feature and application of cortex A, cortex R, cortex M processor. [8]
b) Compare the cortex M₃ with ARM 7 TDMI. [8]

OR

- Q6)** a) Draw and Explain block diagram of ARM cortex M₃. [8]
b) Explain CMSIS standard with structure in detail. [8]

- Q7)** a) What is TET LCD. [8]
b) Draw and Explain architectural diagram of LPC 1768 Microcontroller. [8]

OR

- Q8)** a) Draw and Explain interfacing of 7 segment display with cortex 1768. [8]
b) Explain in detail clock and power control. [8]

- Q9)** Write a short note on following block in LPC 1768. [18]
a) CAN.
b) Ethernet.
c) USA.

OR

- Q10)** a) Draw and Explain interfacing diagram of DC motor using PWM of LPC 1768 also write Embedded C program for same. [10]
b) Draw and Explain block diagram of CAN controller. [8]

