Total No. of Questions : 10]

SEAT No. :

P3508

[Total No. of Pages : 2

[5560]-158
TE (E & TC)
EMBEDDED PROCESSOR
(2012 Pattern) (Semester - II)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8 and Q9 or Q10.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figure to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***

Q1) a) Draw and explain ARM 7 data flow model. **[6]**

b) Explain IOSET and IOCLR Registers of LPC 2148. **[4]**

OR

Q2) a) Draw and explain memory map of LPC 2148. **[6]**

b) Draw and explain format of GPSR register of ARM 7. **[4]**

Q3) a) Draw interfacing diagram and write an embedded C program to flash 8 LEDs connected at P0.8 to P0.15 of LPC 2148. **[6]**

b) Explain SD card interfacing with LPC 2148. **[4]**

OR

Q4) a) Draw interfacing diagram and write an embedded 'C' program to display string 'SPPU' on 16*2 LCD. **[6]**

b) With the help of interfacing diagram explain GSM interfacing with LPC 2148. **[4]**

Q5) a) Compare ARM CORTEX A, CORTEX M, CORTEX R processors. **[8]**

b) Explain CMSIS standard of ARM. **[8]**

OR

P.T.O.

Q6) a) Explain registers used in CORTEX M3 processor. **[8]**

b) Explain thread and handler modes of Cortex M3. **[8]**

Q7) a) State feature of LPC 1768. **[8]**

b) Interface two 7 segment display to LPC 1768 and write a 'C' program to display digits '54' on them. **[8]**

OR

Q8) a) Draw & explain block diagram of LPC 1768. **[8]**

b) Interface RGB LED to LPC 1768 & Write a 'C' program to display red, blue and green colour with some delay. **[8]**

Q9) a) Explain USB communication. **[9]**

b) Explain PIN connects black of LPC 1768 & registers associated with this block. **[9]**

OR

Q10)a) Explain CAN protocol in details. **[9]**

b) Explain Ethernet based communication. **[9]**

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