

B.Tech. SEM -VI Electronics 2014 Course (CBCS) : WINTER - 2018
SUBJECT: EMBEDDED SYSTEMS

Day: Wednesday
Date: 14/11/2018

W-2018-2479

Time: 10.00 AM TO 01.00 PM
Max Marks. : 60

N.B. :

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Assume suitable data, if necessary.
-

Q.1 What are hardware components of embedded system and discuss in detail? **(10)**

OR

Q.1 Classify embedded system in brief. **(10)**

Q.2 Write difference between semaphores and mutex. **(10)**

OR

Q.2 Discuss various IDE's in detail. **(10)**

Q.3 Discuss the following: **(10)**

- i) Barrel shifter
- ii) MAC (multiply and accumulator unit)
- iii) ALU in ARM

OR

Q.3 Discuss PSR in ARM. **(10)**

Q.4 Write a program to generate a square wave and draw the interfacing diagram of DAC 0808 with LPC 2148. **(10)**

OR

Q.4 Draw and write program for the interfacing of LPC 2148 and LCD display. **(10)**

Q.5 Discuss the role of register: **(10)**

- i) Direction register
- ii) Set register
- iii) Clear register
- iv) Mask register

OR

Q.5 Draw the block diagram of LPC 1768 and discuss in detail. **(10)**

Q.6 What is PWM? Write a program to drive dc motor with LPC 1768. **(10)**

OR

Q.6 Draw and write program for the interfacing diagram of SSD with LPC 1768. **(10)**

* * * * *