BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
B.Tech.Sem - VI E & TC :SUMMER- 2022
SUBJECT : EMBEDDED SYSTEMS

Day : Wednesday
Date : 15-06-2022

S-13362-2022

Time : 02:30 PM-05:30 PM
Max. Marks : 60

N. B. :

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labelled diagrams **WHEREVER** necessary.
4) Use of non-programmable calculator is **ALLOWED**.
5) Assume suitable data, if necessary.

Q. 1 Define an embedded system? What are the software components of an embedded system? **(10)**

OR

Q. 1 What are the design constraints of an embedded system? **(10)**

Q. 2 Write a note on following: **(10)**

a) Task states
b) Task scheduler
c) Mailbox

OR

Q. 2 How memory management is handled in RTOS? **(10)**

Q. 3 Draw and explain programmer's model of ARM. Write the contents of CPSR. **(10)**

OR

Q. 3 Draw and explain Data flow model of ARM. **(10)**

Q. 4 Draw and explain keyboard interfacing with LPC2148. Write the algorithm for key scanning. **(10)**

OR

Q. 4 Write a program for LPC2148 to read analog data and display ADC converted data on LCD. **(10)**

Q. 5 Write features of LPC1768. **(10)**

OR

Q. 5 Compare features of CORTEX A, M and R series. **(10)**

Q. 6 Draw and explain interfacing of SDCARD with LPC1768. **(10)**

OR

Q. 6 Draw and explain interfacing of seven segment display with LPC1768. **(10)**

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