[6010]-73

B.E. (E & TC) (Insem.)
EMBEDDED SYSTEM DESIGN (Elective - V)
(2019 Pattern) (Semester - VIII) (404191 D)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates :

1) *Answer Q1 or Q2, Q3 or Q4.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right side indicate full marks.*
4) *Assume suitable data, if necessary.*

Q1) a) What are the Design challenges in Embedded System design? How to find Design productivity gap while designing Embedded System?**[8]**

b) Explain about Embedded Software Development tools. Which debugging techniques are used while development of Embedded Software? **[7]**

OR

Q2) a) Illustrate design Process of Embedded System. Discuss about skills required with Embedded System Designer. **[8]**

b) Explain software architectures used in Embedded System. Explain selection criterion of a software architecture. **[7]**

Q3) a) Compare Arm Processors in Cortex family. Explain MCU selection criteria for specific application. **[8]**

b) Draw interfacing circuit and write a program to read an input from push button using STM32F4 and flash LED. **[7]**

OR

Q4) a) Explain architecture of STM32F4XX MCU with respect to Pin diagram, CPU, Memory, GPIO, Clock and Timer module, ADC-DAC module. **[8]**

b) Explain interfacing requirement issues of STM32F4. Explain GPIO configurations for STM32F4. **[7]**

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