(FOR THE CANDIDATES ADMITTED DURING
THE ACADEMIC YEAR 2019-20 ONLY)   SUBJECT CODE   19UCT6E4

REG.NO.:

N.G.M. COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS: JULY – 2022

B.Sc.-COMP.TECHNOLOGY   **MAXIMUM MARKS: 75**

SEMESTER: VI   **TIME: 3 HOURS**

PART - III
EMBEDDED SYSTEMS
SECTION – A   (10 X 1 = 10 MARKS)
ANSWER THE FOLLOWING QUESTIONS.   (K1)

1. Which design considers both the hardware and software during the embedded design?

    a. Memory Design
    b. Software/ hardware codesign
    c. Platform-based design
    d. Peripheral design

2. Which design activity can be used for the mapping operation to hardware?

    a. High-level transformation
    b. Scheduling
    c. Compilation
    d. Hardware / Software partitioning

3. Which architecture is used to design VLSI ?

    a. system on a device
    b. single open circuit
    c. system on a chip
    d. system on a circuit

4. Which of the following is also known as loader?

    a. Linker (a)
    b. Locator
    c. Assembler
    d. Compiler

5. What is PCB?
    a. Process Control Block
    b. Programme Control Block
    c. Process Communicating Block
    d. Programme Communicating Block

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.   (K2)

6.   Define Embedded system

7.   Distinguish between microprocessor and Microcontroller

8.   Explain IO Types

9.   Explain Device Driver

10.   Define Preprocessor macros

SECTION – B   (5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.   (K3)

11.   a)   List down the components of embedded system hardware

(OR)

      b)   Sketch various functional circuits in a microcontroller chip

12.   a)   List down Serial and parallel port IOs

(OR)

      b)   Describe the uses of Timer device

13.   a)   Interpret non-maskable and maskable interrupts

(OR)

      b)   List down the points in writing physical device driving in ISRs in system

14.   a)   List down the use of pointers and null pointers

(OR)

      b)   List down the use of Data structures

15.   a)   List down the information in PCB about the process state.

(OR)

      b)   List out the Task States

SECTION – C   (4 X 10 = 40 MARKS)

ANSWER ANY FOUR OUT OF SIX QUESTIONS

(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS.   (K4/K5)

16.   Summarise Embedded software in a system

17.   Point out the examples of Embedded systems

18.   Classify the IO Types

19.   Discuss Interrupt sources.

20.   Discuss C Programming Elements: Data types, Data Structure, Loops

21.   Discuss Inter-Process Communication

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