

**S.NO: 22N1- PCS**

**Course Code: PGXE4**

**A.D.M.COLLEGE FOR WOMEN, NAGAPATTINAM**

**(AUTONOMOUS)**

**M.Sc (Computer Science) Degree Examination**

**III Semester – November – 2022**

**EC IV – EMBEDDED SYSTEM**

**Time: 3 hours**

**Maximum Marks: 75**

**Section –A**

**10X2=20**

Answer **ALL** the Questions

1. Define the term microcontroller.
2. Mention the functions of a device driver.
3. What is the use of data types in a program element ?
4. How does list differ from queue ?
5. What is meant by software analysis ?
6. Why do we model processes for software analysis ?
7. When is an RTOS necessary ?
8. List out the services of RTOS.
9. What is the role of Device programmer ?
10. How does an ICE differ from an emulator ?

**Section -B**

**5X5=25**

Answer **ALL** the Questions

11. a) Give the outline of application specific system processors in Embedded System.

**(or)**

b) Examine the various forms of memories in the system.

12. a) Explain the role of Interrupts handler

**(or)**

b) Analyze the uses of various data structures in a program element.

13. a) What is the role of timer device ? Mention its uses.

**(or)**

b) Explain the uses of inter process communication technique.

14. a) Enumerate the goals of Operating Systems.

**(or)**

b) What are the model strategies adopted by a scheduler ? Explain.

15. a) Explain the four components of embedded system project management.

**(or)**

b) Illustrate the design cycle in the development process of any embedded system.

**Section -C**

**3 X 10 = 30**

Answer any **THREE** Questions

16. Explain the software in processor specific assembly language.
17. Describe the Embedded programming in Java .
18. Elucidate the modeling of multiprocessor systems.
19. Discuss the functions of Real-time Operating Systems.
20. Analyze the embedded system design and co-design issues in system development process.

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