**Department of ISE & CSE(DataScience)**

**Question bank- Embedded system concepts with ARM**

1. Explain the classification and purpose of embedded system.
2. With a neat block diagram discuss the working of an Embedded System in automatic domain.
3. With a neat block diagram discuss the working of the washing machine.
4. Summarize the different firmware design approaches.
5. Describe the operational and non-operational quality attributes of an embedded system.
6. With a neat diagram discuss the FSM model for Automatic Tea/Coffee vending machine.
7. Explain how assembly language source file is translated to machine language object file.
8. Describe the purpose of an Embedded System.
9. Describe the different classifications of an Embedded System.
10. Explain the fundamental issues in Hardware- software-co- design.
11. With a neat diagram, discuss the major hardware components of an Embedded Systems.
12. Differentiate between RISC and CISC, and explain the four major rules of RISC design.
13. With the FSM model, explain the design and operation of the Driver/ Passenger Seat Belt Warning system.
14. Differentiate between General Purpose computing systems and Embedded Systems
15. Examine the ARM design philosophy and explain how the ARM instruction set differs from the pure RISC definition.
16. With a neat diagram, show the components of Embedded system hardware and explain in detail.
17. With a neat diagram,explain 4 main components of embedded system hardware.
18. What is an embedded system? List any 4 purposes of embedded system with example.
19. Explain the different communication buses used in automotive applications.
20. Explain assembly language-based embedded firmware development with a diagram
21. Mention the applications of embedded system with an example of each.
22. Explain super loop based approach of embedded firmware design
23. Explain the roles of different types of memories in embedded systems
24. Compare c vs embedded c
25. Compare Compiler vs cross compiler