Regulation R20 *Subject code:3O5EA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech V Semester Supplementary Examinations, February 2024

EMBEDDED SYSTEM DESIGN

(CSE)

Maximum Marks: 70 Date:26.02.2024 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

	Part-A
All the following questions carry equal marks	(10X2M=20 Marks)
1	Distinguish between General purpose computing systems and embedded systems?
2	Write the disadvantages of embedded system.
3	What are the languages used in embedded system?
4	Compare RISC & CISC processors?
5	Define onboard communication.
6	Discuss the bottlenecks in embedded industry.
7	Discuss about kernel space and user space.
8	Define Thread.
9	Describe message passing.
10	Define task synchronization?
	Part-B
Answer All the following questions.	(5X10M=50Marks)
11	What is an embedded system and write it's applications? [10]
	OR
12	What is the operational quality attribute? Explain the important operational quality attributes to be considered in any embedded system design? [10]
13	What is embedded firmware? What are the different approaches available for embedded firmware development? [10]
	OR
14	Explain about ASIC, PLDs & COTS in detail? [10]
15	Explain Development Language Trends in embedded systems. [10]
	OR
16	Describe the processor trends in embedded system. [10]
17	Explain the Process life cycle in detail with neat diagram. [10]
	OR
18	Explain different multitasking and multiprocessing in the real time operating systems context. [10]
19	Explain in detail the different task communication synchronization issues encountered in Inter Process communication. [10]
	OR
20	Explain the architecture of device driver, with neat sketch and give the applications of device drivers. [10]