Name…… Roll No……..

ST. JOSEPH'S COLLEGE OF ENGINEERING AND TECHNOLOGY, PALAI.

(An ISO 9001:2015 Certified College)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

B. TECH DEGREE SECOND INTERNAL TEST- JUNE 2021

SEMESTER -8 Batch 2017-2021 A & B

CS404 EMBEDDED SYSTEMS

Time: 2 Hours Max. Marks: 50

PART A

Answer all questions (20 marks)

Qn No.	Questions	Marks	K level	CO & KL
1	Identify the components of embedded system development environment and draw a neat diagram to show the integration of these components.	5	K3	CO4&K3
2	Compare between simulator and Emulator. How can we debug the firmware using in-circuit emulator?	5	K2	CO4&K3
3	Consider a mobile phone device and look at the main menu. Explain how the events of touching the screen at different points on the screen are handled by an RTOS using two-level ISR handling	5	K3	CO5&K3
4	Examine the recent trends in firmware development languages other than Embedded C.	5	K2	CO6 & K2

PART B

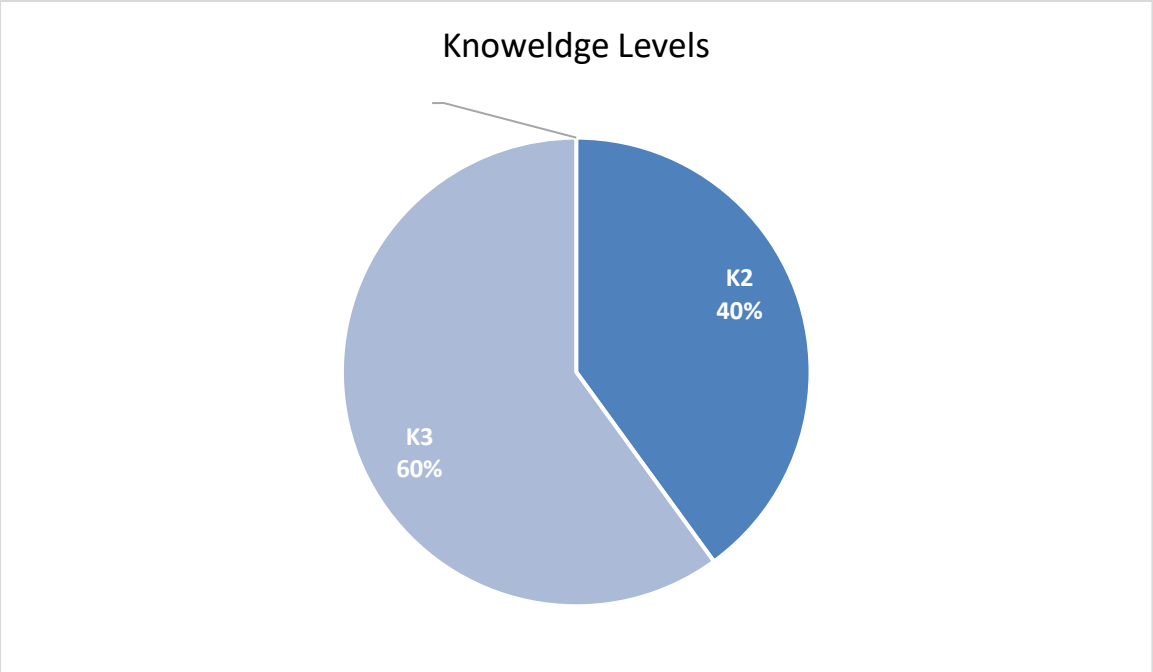
Answer all questions (30 marks)

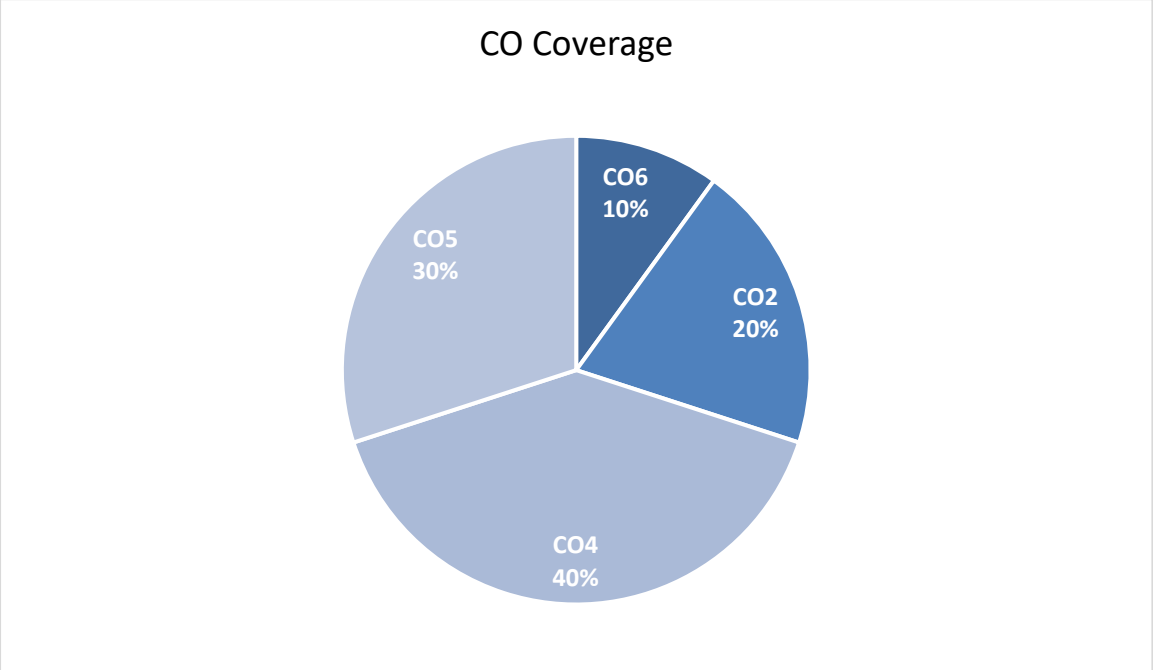
Qn No.	Questions	Marks	K level	CO & KL
5	List out and explain the methods for embedding firmware in hardware.	10	K2	CO4&K3
6	Consider four processes P1, P2, P3 and P4 arrives CPU in the given order. Find out the average waiting time and average turnaround time while using a. FCFS b. LCFO c. Non preemptive priority-based scheduling	10	K3	CO5&K3
7	An automatic motor car implements Automated braking system. Explain the distributed architecture used in the automated car.	10	K3	CO2 & K3

Process	Arrival Time	Burst Time	Priority
P1	0	8	4
P2	1	4	2
P3	2	9	3
p4	3	5	1

Name…… Roll No……..

Question Paper Analysis (Sample)





Prepared by:	Verified by:	Approved by:
Prof. Suma R & Prof. Ashly Thomas Name & Signature Faculty-in-charge	Prof. Mereen Thomas Name & Signature Course Coordinator	 Name & Signature HoD