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## J.N.N COLLEGE OF ENGINEERING, SHIVAMOGGA

## DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING

## I-INTERNAL ASSESSMENT

Semester: 7-CBCS Subject: ARM Embedded Systems (18EC753) Faculty: Mr. Benak Patel M P Date: 28 Nov 2021 Time: 10:50 AM – 12:30 PM Max Marks:50

Q.No		Answer Any 2 Question(s)	Marks	CO	BTL
1	а	Explain ARM core data flow model with a neat diagram.	9	1	L2
	b	Explain RISC design philosophy with their design rules.	8	1	L3
	С	Give the schematic of a Current Program Status Register of ARM processor briefing the individual bits.	8	1	L3
OR					
2	а	Explain hardware components of a typical embedded device based on an ARM core.	9	1	L2
	b	Explain the factors responsible for ARM instruction set suitable for embedded applications.	8	1	L3
	С	Explain Banked Registers concept also Give the schematic of a Complete ARM Register Set.	8	1	L3
3	а	Explain following instructions with pre and post register content.assume the content of r0 =0x0000-0000 ; r1=0x8000-0004 ; r2=0x0000-0002;r3=0x8000-0004a.MOVr0,r1&b.TESTr0,r3&c.CMP r1,r3&SUB r0,r1,r2	9	1	L3
	b	Explain the different ARM processor modes.	8	1	L2
	С	write short notes on AMBA.	8	1	L2
OR					
4	а	ExplainthefollowingInstructionswithexamplea.BICb.RSBc.MVNd.UMULL	9	1	L3
	b	What are the different types of memories used in Embedded System design? Explain the role of each.	8	1	L2
	С	Explain 3 hardware ARM core extensions.	8	1	L2
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