Registration No :													
Total Number of Pages : 02 2 nd Semester Regular / Back Examination 2017-18 EMBEDDED SYSTEM BRANCH : COMPUTER ENGG, COMPUTER SCIENCE, COMPUTER SCIENCE AND ENGG, COMPUTER SCIENCE AND TECH., POWER ELECTRO, POWER ELECTRO & DRIVES, POWER ELECTRO AND ELECTRICAL DRIVES Time : 3 Hours Max Marks : 70 Q.CODE : C1052 Answer Question No.1 which is compulsory and any five from the rest. The figures in the right hand margin indicate marks. Answer all parts of a question at a place													
Q1	a) b) c) d) e) f) g) h) i) j)	Answer the following questions: Define device driver. Describe Kemighan-Lin algorithm. Define ROTS. Specify the typical characteristics of an embedded system. Define embedded microcontroller. List the differences between coarse granularity and fine granularity. What is SoC? List the applications of embedded system. What do you mean by hardware/software trade-off? Why UML modeling is used?									(2 x 10)		
Q2	a) b)	Discuss the Embedded system design flow and methodology with suitabl neat sketch diagrams. Describe FPGA architecture with a neat sketch diagram.							uitable	(5) (5)			
Q3	a)) Explain state transition diagram of RTOS. List the characteristics of hybrid scheduler.										(5)	
	b)	Differentiate soft and hard RTOS. Give an example of each.										(5)	
Q4	a) b)	Differentiate between SRAM and DRAM. Explain the schedulability test for RMA. Specify the necessary and sufficient condition.									(5) (5)		
Q5	a) b)	What do you mea What are the requestion embedded application	in by MISF uirement c ation?	RA C? f parti	List c itionin	out the g har	e rule: dware	s of N e and	1ISRA softw	、C? /are ir	n deve	eloping	(5) (5)

- **Q6 a)** List the differences between RS-232 and RS-485 serial interface. Write short **(5)** notes on IrDA interface and ISA.
 - b) Enumerate the evolution of various pipelining structures in ARM. How many general and special-purpose registers are there in ARM? Explain their functionalities
- **Q7** Compare and contrast various system level power management policies. (10)

Q8 Write short answer on any TWO :

(5 x 2)

- a) IrDA interface
- b) CAN
- c) POSIX-RT
- d) Design for Testability Techniques