

JK LAKSHMIPAT UNIVERSITY JAIPUR
INSTITUTE OF ENGINEERING AND TECHNOLOGY
End-Term Examination

Programme: BTech ECE
 Course Name: Microprocessor and Microcontroller
 Maximum Marks: 30

Semester: 5th
 Course Code: EE1408
 Time Allowed: 3 Hours

- Do not write anything other than your roll number on question paper.
- Mention all the assumptions for your answers clearly.
- The student, before starting to write the solutions, should please check the question paper for any discrepancy and ensure that they have been delivered the question paper of right course code.
- Total 6 Questions are there.

Sr. No.		Question	Marks	CO
1.		Explain the process of Multiplication of two 16 bit numbers using 8051 micro controller.	5	2
2	a	Condition code bits Briefly explain how the ARM processor uses the condition code bits N Z V C	2	1
	b	Discuss the low power modes available in ARM Cortex-M processors	3	
3		We know ARM is a RISC based processor. What is the main characteristics of an RISC processor and Explain the major design rule for design a RISC processor.	2+4	1
4.	a	What an Program status register (CPSR) and what are the different Processor mods available in context of an Cortex M processor.	4	2
	b	While working with ARM cortex processors total of 16 registers are visible to a specific mode. List these registers and their utility.	3	2
5		I want to perform the following task using a ARM based evaluation board, provide the instructions to perform the given task? i) Multiplication of two number with result will be added to a number accumulated in accumulator. ii) Subtraction of two number with borrow iii) Exclusive OR operation of two inputs iv) Immediately transfer/move a 16 bit data	4	2,3
6		Describe the internal architecture of an ARM Cortex-Processors	3	1