



BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT
YELAHANKA - BANGALORE - 64

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

IV INTERNAL ASSESSMENT TEST, MAY - 2017

Subject: Microprocessors & Microcontrollers	Subject Code: 15CS44	Branch & Semester : CSE - 4 A & B
Max. Marks : 30 Marks	Date: 30/05/2017 Time: 2 PM - 3:30 PM	Faculty: Mr. Shankar R

*Answer FIVE full questions, selecting THREE full questions from Part A.
(Part B is compulsory)*

Q. No	Question	CO, PO, K level	Marks
PART-A			
1.	Explain the following instruction with suitable examples: AAD DAS CMPSB XCHG	CO2 (PO1) K2	06
OR			
2.	Explain the following instruction with suitable examples: LOOP IDIV SAL IMUL	CO2 (PO1) K2	06
3.	Explain all the rotate instructions with suitable examples.	CO2 (PO1) K1	03
OR			
4.	What are the sources of interrupts? Briefly explain the steps taken by a processor to execute an interrupt instruction.	CO2 (PO1) K1	03
5.	With a neat block diagram explain 82C55 PPI.	CO2 (PO1) K1	06
OR			
6.	Explain the following instruction with suitable examples: IN OUT XLAT SHL	CO2,CO4 (PO1,PO3) K3	06
PART-B			
7.	In assembly language, analyse the case of taking string as input and check for its palindrome property.	CO2 (PO1,PO2) K4	06
8.	Develop an assembly program to display messages "BMS" and "IT" alternately with flickering effects on a 7-segment display interface	CO2,CO5 (PO2,PO3) K6	06
Course Outcomes: Students will be able to			
CO1	Describe the architecture of X86 Microprocessors and have an introduction to Assembly Language Programming.		
CO2	Discuss the Instruction Set of X86 Microprocessors and extend it to interface various devices to X86 families		
CO3	Understand ARM philosophy and its Instruction Set.		
CO4	Demonstrate the skills to code in Assembly Language, ARM.		
CO5	Construct software and hardware programs using Assembly Language Programming, ARM.		
K1: Remember	K2: Understand	K3: Apply	K4: Analyze
K5: Evaluate	K6: Creation		